



West Middlesex University Hospital

**Date of Search: 08/07/2016**

**Sources Searched: Medline/Embase**

**Search History:**

1. Medline; ("Tubo-ovarian abscess\*" OR "Tuboovarian abscess\*").ti; 319 results.
2. Medline; 1 [Limit to: (Language English)]; 285 results.
3. EMBASE; ("Tubo-ovarian abscess\*" OR "Tuboovarian abscess\*").ti; 373 results.
4. EMBASE; \*TUBOOVARIAN ABSCESS/; 243 results.
5. EMBASE; 3 OR 4; 417 results.
6. EMBASE; 5 [Limit to: English Language]; 368 results.

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**Title:** Tubo ovarian abscess in non-sexually active girls: A case review

**Citation:** Pediatric Radiology, May 2016, vol./is. 46/(S250), 1432-1998 (May 2016)

**Author(s):** Jackson D., Gould S., Reichard K., Epelman M.

**Language:** English

**Abstract:** Purpose or Case Report: Tubo-ovarian abscesses are uncommon and are usually associated with pelvic inflammatory disease secondary to sexually transmitted disease; however, there has been a small number of reported cases occurring in non-sexually active girls. A series of six virginal girls with tubo-ovarian abscesses is presented for discussion of the clinical circumstances, imaging findings and diagnostic difficulties encountered in this uncommon diagnosis. Methods & Materials: The PACS database was queried for the words "tubo-ovarian abscess" resulting in finding of 5 cases between August 2011 and 2015. An additional case from this time period was retrieved from the teaching file of one investigator (SG). The charts and imaging studies of each patient were reviewed. Results: Six girls were found with imaging or surgical documentation of tubo-ovarian abscess. The patients ranged in age from 8 to 15 years old at time of presentation and each denied ever engaging in oral, vaginal or anal sexual intercourse. Five of six cases were associated with appendicitis. Two of these cases were associated with acute ruptured appendicitis. The other three cases occurred in patients with prior ruptured appendicitis with recent appendectomy 2-3 weeks prior to presentation. The sixth case was felt to be due to poor hygiene with resulting ascending E. coli infection. Four of six abscesses were correctly diagnosed by imaging alone. Ultrasound, computed tomography, and magnetic resonance imaging were helpful in making the diagnosis, and the imaging findings are described. Two cases were not diagnosed until laparoscopy performed for complex adnexal mass/cyst thought to be of ovarian origin, but abscess was not included in the preoperative differential diagnosis. Conclusions: Tubo-ovarian abscess is an uncommon diagnosis, but should be included in the differential diagnosis of a complex adnexal mass even in non-sexually active girls. Correct diagnosis by imaging can be difficult given the number of more common

potential causes of complex adnexal masses and the reluctance to suggest this diagnosis without a history of sexual activity. However, a delay in diagnosis can result in chronic pelvic pain and increased risk of infertility. Further evaluation for a ruptured appendix should ensue in a girl with a tubo-ovarian abscess who denies sexual activity.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *Springer Link Journals* in [Pediatric Radiology](#)

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**Title:** CT differentiation between tubo-ovarian and appendiceal origin of right lower quadrant abscess: CT, clinical, and laboratory correlation

**Citation:** Emergency Radiology, April 2016, vol./is. 23/2(133-139), 1070-3004;1438-1435 (01 Apr 2016)

**Author(s):** Hiller N., Fux T., Finkelstein A., Mezeh H., Simanovsky N.

**Language:** English

**Abstract:** To investigate which clinical, laboratory, and CT findings potentially facilitate the differential diagnosis between tubo-ovarian abscess (TOA) and periappendicular abscess (PAA), we retrospectively reviewed abdominal CT examinations and medical records for all women who presented to our medical center with unilateral right pelvic abscess formation who underwent CT evaluation from 2004-2014. A wide spectrum of clinical data and imaging findings were recorded. CT diagnoses were made in consensus by two experienced body radiologists blinded to the final diagnosis. Findings associated with the infections were compared using the chi-square ( $\chi^2$ ) or the Fisher exact test. Ninety-one patients were included; 58 with PAA (mean age 46 years) and 33 with TOA (mean age 37 years). Pain on cervical motion (67 %) and vaginal discharge (21 %) were significantly more common in TOA; other clinical signs were similar. The presence of right ovarian vein entering the mass on CT had 100 % specificity and 94 % sensitivity to TOA. Distended right fallopian tube (79 %), mass posterior to mesovarium (76 %), contralateral pelvic fat stranding (55 %), and thickening of sacrouterine ligaments (55 %) were significantly more common in TOA. Positive "arrowhead sign" (91 %), mesenteric lymphadenopathy (85 %), small bowel wall thickening (55 %), fluid in the right paracolic gutter (50 %), and cecal wall thickening (48 %) were significantly more common in PAA; internal gas was revealed only in PAA (33 %). Distinct CT features can increase diagnostic certainty regarding the origin of right lower quadrant abscess in women.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

**Title:** Tubo-ovarian abscess in a virginal adolescent with a history of appendectomy: A case report

**Citation:** Journal of Pediatric and Adolescent Gynecology, April 2016, vol./is. 29/2(205), 1083-3188 (April 2016)

**Author(s):** Williams T., Perkins R.

**Language:** English

**Abstract:** Background: Pelvic Inflammatory Disease is extremely rare in the premenstrual and virginal adolescent population. In most cases, PID and its sequelae, Tubo-ovarian abscess, are secondary to ascending bacterial infections of the vagina and cervix. In the virginal population, the etiology is more commonly secondary to infections of the gastrointestinal and genitourinary tracts. We discuss a case of tubo ovarian abscess in a virginal patient with a history of appendicitis. Case: A 12 yo virginal female presents to the emergency department of a tertiary medical center reporting RLQ abdominal pain and documented fever to 102.4. Initial workup in the ED is concerning for focal tenderness in the RLQ with a leukocytosis of 12.8. The patient has a history of an appendectomy three years prior to presentation. A TVUS and subsequent CT of Abdomen/Pelvis reveal a heterogeneous, enhancing dilated tubular structure near the right ovary. The Gyn service was consulted and the patient is admitted to the Pediatric service for presumed tubo-ovarian abscess and IV antibiotic management. After 48 hrs of IV Ceftriaxone, Doxycycline, and Flagyl, the patient continued to experience rigors and temperature spikes. Her WBC count, that had initially began to downtrend, became elevated to 12.8. A repeat TVUS revealed a dilated R. fallopian tube with increased peripheral vascularity concerning for torsion. The patient was taken to the operating room and underwent an uncomplicated R. Salpingectomy. Intraoperative, dense adhesions were noted extending from the rectum to the posterior uterus. Final surgical and vaginal cultures were negative. Comments: PID should consistently be a differential in adolescent females presenting with abdominal pain, regardless of sexual history. A high index of suspicion is indicated in patients with a history of recurrent urinary tract infections, chronic disease of the G.I. tract, and prior abdominopelvic surgery. Perforated appendicitis is documented to result in both acute and long-term risks to the ovary and fallopian tube. There are few case reports detailing cases of recurrent pelvic infections, salpingitis, hydrosalpinx, and tubo-ovarian abscess after an uncomplicated appendectomy. Long-term sequelae include a concerning influence on future fertility outcomes. Physician awareness of the possibility of PID/TOA in the amenorrheic, virginal population is essential for prompt diagnosis and surgical management to mitigate the long term sequelae of these infections.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Tubo-ovarian abscesses in non-sexually active females: A large case series

**Citation:** Journal of Pediatric and Adolescent Gynecology, April 2016, vol./is. 29/2(192), 1083-3188 (April 2016)

**Author(s):** Hakim J., Childress K.J., Oleka C.T., Bercaw-Pratt J.

**Language:** English

**Abstract:** Background: Tubo-ovarian abscesses (TOAs) are common complications of pelvic inflammatory disease (PID). PID and TOAs are extremely rare in non-sexually active (non-SA) females. There are only eight reported cases of TOAs in non-SA females. This large case series of TOAs in non-SA adolescents highlights the principles of presentation and management of these patients. Methods: IRB approval was granted by Baylor College of Medicine. We performed a retrospective chart review and used descriptive statistics to analyze cases of TOAs in non-SA females identified by ICD-9 codes who presented to Texas Children's Hospital between 7/2007 and 7/2015. Results: Sixteen non-SA females met inclusion criteria for diagnosis of a TOA with one patient presenting twice. The mean age at diagnosis was 14.6 +/- 1.8 years. All 16 patients were menarchal. Table 1 highlights the clinical presentation and management of these cases. The most common presenting complaints were abdominal pain (88%), fever (76%), and vomiting (53%). No patients had increased or foul vaginal discharge. Two (12%) had epigastric pain and were found to have either transaminitis or pancreatitis and one had laboratory evidence of disseminated intravascular coagulation (DIC). Twelve (71%) had elevated white blood cell count (WBC). Eleven patients had a pelvic ultrasound (65%), two had a pelvic MRI (12%), and eleven had a CT scan of abdomen/pelvis (65%). One patient had a wet mount performed and all 16 were negative for gonorrhoea and chlamydia (GC/CT). Thirteen (76%) had a comorbid disease: five with known obstructed hemivagina ipsilateral renal agenesis (OHVIRA), five with active appendicitis or a recent history of appendicitis, and four with renal or urinary tract anomalies. Fourteen had drainage of the TOAs, seven (41%) via interventional radiology (IR) and eight (47%) via surgical drainage. Fluid from the TOA was cultured in 12 cases (71%) and five (29%) grew E. Coli species predominantly. All 16 patients received IV (intravenous) antibiotics with Zosyn (n=12 or 75%) and Gentamicin/Clindamycin (n=7 or 58%) being the most common regimens. Fifteen (88%) continued oral antibiotic treatment as an outpatient (OP). Conclusions: While TOAs are uncommon in non-SA adolescents, young females with underlying comorbidities such as mullerian, renal, and gastrointestinal abnormalities may be at increased risk for TOA formation. Providers should consider the diagnosis of TOA even in non-SA females who present with abdominal pain, fever, and/or other atypical symptoms and systemic illness. (Table Presented).

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Tubo-Ovarian Abscess (with/without Pseudotumor Area) Mimicking Ovarian Malignancy: Role of Diffusion-Weighted MR Imaging with Apparent Diffusion Coefficient Values

**Citation:** PLoS ONE, February 2016, vol./is. 11/2(no pagination), 1932-6203 (February 2016)

**Author(s):** Wang T., Li W., Wu X., Yin B., Chu C., Ding M., Cui Y.

**Language:** English

**Abstract:** Objective To assess the added value of diffusion-weighted magnetic resonance imaging (DWI) with apparent diffusion coefficient (ADC) values compared to MRI, for characterizing the tuboovarian abscesses (TOA) mimicking ovarian malignancy. Materials and Methods Patients with TOA (or ovarian abscess alone; n = 34) or ovarian malignancy (n = 35) who underwent DWI and MRI were retrospectively reviewed. The signal intensity of cystic and solid component of TOAs and ovarian malignant tumors on DWI and the corresponding ADC values were evaluated, as well as clinical characteristics, morphological features, MRI findings were comparatively analyzed. Receiver operating characteristic (ROC) curve analysis based on logistic regression was applied to identify different imaging characteristics between the two patient groups and assess the predictive value of combination diagnosis with area under the curve (AUC) analysis. Results The mean ADC value of the cystic component in TOA was significantly lower than in malignant tumors ( $1.04 \pm 0.41 \times 10^{-3} \text{ mm}^2/\text{s}$  vs.  $2.42 \pm 0.38 \times 10^{-3} \text{ mm}^2/\text{s}$ ;  $p > 0.001$ ). The mean ADC value of the enhanced solid component in 26 TOAs was  $1.43 \pm 0.16 \times 10^{-3} \text{ mm}^2/\text{s}$ , and 46.2% (12 TOAs; pseudotumor areas) showed significantly higher signal intensity on DWMRI than in ovarian malignancy (mean ADC value  $1.44 \pm 0.20 \times 10^{-3} \text{ mm}^2/\text{s}$  vs.  $1.18 \pm 0.36 \times 10^{-3} \text{ mm}^2/\text{s}$ ;  $p = 0.043$ ). The combination diagnosis of ADC value and dilated tubal structure achieved the best AUC of 0.996. Sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy of MRI vs. DWI with ADC values for predicting TOA were 47.1%, 91.4%, 84.2%, 64%, and 69.6% vs. 100%, 97.1%, 97.1%, 100%, and 98.6%, respectively. Conclusions DW-MRI is superior to MRI in the assessment of TOA mimicking ovarian malignancy, and the ADC values aid in discriminating the pseudotumor area of TOA from the solid portion of ovarian malignancy.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *National Library of Medicine* in [PLoS ONE](#)

Available from *ProQuest* in [PLoS One](#)

Available from *National Library of Medicine* in [PLoS ONE](#)

Available from *Allen Press* in [PLoS One](#)

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**Title:** Clinical Characteristics Associated with Antibiotic Treatment Failure for Tuboovarian Abscesses

**Citation:** Infectious Diseases in Obstetrics and Gynecology, 2016, vol./is. 2016/(no pagination), 1064-7449;1098-0997 (2016)

**Author(s):** Farid H., Lau T.C., Karmon A.E., Styer A.K.

**Language:** English

**Abstract:** Objective. Although parenteral antibiotic treatment is a standard approach for tuboovarian abscesses, a significant proportion of patients fail therapy and require interventional radiology (IR) guided drainage. The objective of this study is to assess if specific clinical factors are associated with antibiotic treatment failure. Study Design. Retrospective medical record review of patients hospitalized for tuboovarian abscesses from 2001 through 2012 was performed. Clinical characteristics were compared for patients who underwent successful parenteral antibiotic treatment, failed antibiotic treatment necessitating subsequent IR drainage, initial drainage with concurrent antibiotics, and surgery. Results. One hundred thirteen patients admitted for inpatient treatment were identified. Sixty-one (54%) patients were treated with antibiotics alone. Within this group, 24.6% failed antibiotic treatment and required drainage. Mean white blood cell count (K/ $\mu$ L) (18.7 $\pm$ 5.94 versus 13.9 $\pm$ 5.12) ( $p=0.003$ ), mean maximum diameter of tuboovarian abscess (cm) (6.8 $\pm$ 2.9 versus 5.2 $\pm$ 2.0) ( $p=0.03$ ), and length of stay (days) (9.47 $\pm$ 7.43 versus 4.59 $\pm$ 2.4) ( $p=0.002$ ) were significantly greater for patients who failed antibiotic treatment. Conclusions. Admission white blood cell count greater than 16 K/ $\mu$ L and abscess size greater than 5.18 cm are associated with antibiotic treatment failure. These factors may provide guidance for initial selection of IR guided drainage.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *National Library of Medicine* in [Infectious Diseases in Obstetrics and Gynecology](#)

Available from *ProQuest* in [Infectious Diseases in Obstetrics and Gynecology](#)

Available from *National Library of Medicine* in [Infectious Diseases in Obstetrics and Gynecology](#)

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**Title:** Comparative study of the clinical features of patients with a tubo-ovarian abscess and patients with severe pelvic inflammatory disease

**Citation:** International Journal of Gynecology and Obstetrics, January 2016, vol./is. 132/1(17-19), 0020-7292;1879-3479 (01 Jan 2016)

**Author(s):** Sordia-Hernandez L.H., Serrano Castro L.G., Sordia-Pineyro M.O., Morales Martinez A., Sepulveda Orozco M.C., Guerrero-Gonzalez G.

**Language:** English

**Abstract:** Objective To determine the clinical characteristics that indicate the presence of tubo-ovarian abscess (TOA) among patients with severe pelvic inflammatory disease (PID). Methods An observational cohort study was performed from October 2011 to March 2013. The study included all patients with a diagnosis of TOA and PID admitted to a university hospital in Mexico. A complete medical history and physical examination were performed, and laboratory studies were reviewed. A logistic regression analysis was performed on variables with statistical significance. Results Overall, 26 patients with PID and TOA (TOA group) and 26 with PID without TOA (PID group) were included in the study. Significant differences between patients with TOA and PID were found with regard to the patients' age (39.3 years vs 33.1 years;  $P = 0.04$ ), educational level (only elementary, 13 [50%] vs 5 [19%];  $P = 0.14$ ), presentation with fever (23 [88%] vs 16 [62%];  $P = 0.025$ ), white blood cell count ( $21.8 \times 10^9/L$  vs  $14.9 \times 10^9/L$ ;  $P < 0.001$ ), number of deliveries (2.2 vs 1.1;  $P = 0.01$ ), and presence of diarrhea (16 [62%] vs 5 [19%];  $P < 0.001$ ). The triad of fever, leukocytosis, and diarrhea was positively related to the presence of TOA. Conclusion The triad of fever, leukocytosis, and diarrhea should alert clinicians to the possibility of TOA formation in patients with PID.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Preoperative neutrophil-to-lymphocyte ratio has a better predictive capacity in diagnosing tubo-ovarian abscess

**Citation:** Gynecologic and Obstetric Investigation, December 2015, vol./is. 80/4(234-239), 0378-7346;1423-002X (01 Dec 2015)

**Author(s):** Yildirim M., Turkyilmaz E., Avsar A.F.

**Language:** English

**Abstract:** Background: The aim of this study is to identify the inflammatory markers which predict a tubo-ovarian abscess (TOA) in the most accurate way. Methods: This study involves 312 women. Preoperative inflammatory markers in the study group were compared with those in the healthy control group to identify the most efficient predictor of TOA with a high sensitivity and specificity. The recommended cutoff values of the neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), white blood cell count, and red cell distribution width were determined using receiver operating characteristic curve (ROC) analyses. Results: The area under the curve (AUC = 0.99) in the ROC analysis was found to be statistically significant for NLR ( $p < 0.001$ ) with a cutoff value of  $>4.15$  (95% CI 0.97-1.00, sensitivity 95.2%, specificity 99.4%). The positive predictive value of NLR was 99.2%, and the negative predictive value was 96.7% ( $p < 0.001$ ). The recommended threshold for PLR was found to be 164.37 (AUC = 0.95, 95% CI 0.93-0.98, sensitivity 86.7%, specificity 92%), and the cutoff point of the white blood cell count in the ROC analysis was  $9.55 \times 10^3/\mu L$  (AUC = 0.90, 95% CI 0.87-0.95, sensitivity

78.68%, specificity 96.68%). Conclusion: Preoperative NLR and PLR improve the predictive value of serum markers for the presence of TOA.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** The evaluation of risk factors for failed response to conservative treatment in tubo-ovarian abscesses

**Citation:** Journal of the Turkish German Gynecology Association, December 2015, vol./is. 16/4(226-230), 1309-0399;1309-0380 (December 2015)

**Author(s):** Akkurt M.O., Yalcin S.E., Akkurt I., Tatar B., Yavuz A., Yalcin Y., Akgul M.A., Kayikcioglu F.

**Language:** English

**Abstract:** Objective: The aim of our study is to assess the risk factors for medical treatment failure and to predict the patients who will require the surgical therapy as well as to predict the factors affecting treatment success. Material and Methods: This was a cross-sectional study including 76 women with tubo-ovarian abscesses (TOA) who were either conservatively or surgically treated and were admitted to two gynecology units over a 4-year period. The demographic characteristics of the patients, gynecologic and obstetric histories, size and localization of abscesses were recorded. Gentamicin plus clindamycin treatment protocol was implemented for all patients. Ampicillin treatment was added in three patients with the positive culture of Actinomyces. Response to treatment was evaluated after 48-72 h. Patients who fail to respond to medical treatment required surgery or percutaneous drainage. We compared clinical and laboratory factors between the groups. Results: In surgery group, patients were significantly older than the others (44.9+/-5.4 versus 39.1+/-7.6 years). Fifty-six patients (74%) responded to antibiotics and 20 of the patients required surgical intervention. Patients treated with antibiotics were hospitalized for an average of 6.32+/-2.8 days versus 12.75+/-5.6 days for those who required surgery (p=0.021). Patients who were surgically treated had a mean size of TOA of 67.9+/-11.2 mm versus 53.6+/-9.4 mm for those treated with antibiotics alone (p=0.036). There were no significant differences between groups in laboratory parameters, except for initial white blood cell (WBC) counts. The complications of surgery included in descending order of frequency blood transfusions, surgical wound infections, bowel injury, and bladder injury. Conclusion: An increased size of pelvic mass, higher initial WBC counts, advanced age, and smoking were all associated with failed response to conservative treatment. It is important to identify the risk factors to distinguish patients who will respond to antibiotic therapy and those who will need a surgical treatment. Thus, the required early intervention can result in a reduction in the morbidity associated with TOA.

**Publication Type:** Journal: Article



**Source:** EMBASE

**Full Text:**

Available from *National Library of Medicine* in [Journal of the Turkish German Gynecological Association](#)

Available from *ProQuest* in [Journal of The Turkish German Gynecological Association](#)

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**Title:** Post-partum pelvic peritonitis and tubo-ovarian abscess secondary to sub-clinical chorioamnionitis

**Citation:** International Journal of Gynecology and Obstetrics, October 2015, vol./is. 131/(E472) (October 2015)

**Author(s):** Omer R., Dandawate B., Siddig M.

**Language:** English

**Abstract:** Objectives: 1. To highlight complications of chorioamnionitis. 2. To demonstrate role of multidisciplinary team in managing complex, high risk cases. Method: A case report of a case of pelvic peritonitis in a 29 yrs lady, presented 6 weeks following delivery by emergency caesarean section for fetal distress. Patient was low risk primigravida presented in early labour at 41 weeks gestation, V/E showed intact membranes and 1 cm dilatation, stretching and sweeping of membranes done. Patient re-presented next day with history of drainage of liquor which was not proved on speculum examination. Patient presented after 24 hours in established labour of 3 cm dilatation and membranes were not felt on examination. Fetal heart tracing was suspicious and an emergency CS was performed 2 hours after admission. Results: Thick meconium at caesarean section, placenta unhealthy with an offensive smell. Histopathology showed marked acute Chorioamnionitis/ funisitis and *Streptococcus milleri* isolated. Patient received intravenous and oral antibiotics post CS. Presented 6 weeks postpartum with abdominal pain and feeling unwell, received IV antibiotics. CT scan showed widespread pelvic peritonitis with associated multiple mature pelvic abscesses, right ovary is particularly swollen and possibly necrotic and surrounded by inflammatory fluid. Had Laparotomy, pelvic washout, right salpingoophorectomy. Re-admitted 3 weeks post laparotomy with worsening abdominal pain. CT abdomen: mature inflammatory collection in RIF. Percutaneous ultrasound guided drainage done, bloody purulent sample obtained and sent for microscopy and culture that showed mixed aerobic growth. Conclusions: 1) Pelvic peritonitis and tubo-ovarian abscess could have been primary but likely secondary to chorioamnionitis at caesarean section in spite of 6 weeks interval. 2) This case highlights that it is very important to rule out spontaneous rupture of membranes even in term pregnancies. 3) Importance of modern radiology in managing patients with localised pelvic collections.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Ruptured tuboovarian abscess in the presence of a dislocated intrauterine device

**Citation:** Gynecological Surgery, October 2015, vol./is. 12/1 SUPPL. 1(S245), 1613-2076 (October 2015)

**Author(s):** Topcu H.O., Evliyaotlu O., Sarikaya E., Oskovi Z.A., Oksuzotlu A.

**Language:** English

**Abstract:** Background Rupture of tuboovarian abscess (TOA) is one of the life-threatening gynecological emergencies. Management of TOA includes broad-spectrum antibiotics and surgical intervention is required in 25% of the cases (1). Intraabdominal foreign object like an intrauterine device (IUD) is a predisposing factor for TOA. Here we present a case of ruptured TOA in the presence of a dislocated IUD. Methods Our case was a 33 year-old woman who was hospitalized in our gynecology clinic with complaints of fever, nausea and vomiting, anorexia and pelvic pain. The physical examination revealed abdominal tenderness, rebound tenderness and involuntary guarding while leukocytosis and elevated sedimentation and C - reactive protein was found in laboratory parameters. The patient had a history of intrauterine device insertion 7 years ago. From the patient's previous records, it was found out that IUD was diagnosed to be dislocated one year ago and diagnostic laparoscopy was performed; IUD was seen adherent to intestines therefore extraction was not possible and IUD was left in place. Antibiotic regimen of metronidazole and ceftriaxone was chosen and emergency surgical intervention with diagnostic laparoscopy was decided. Pneumoperitoneum was created with Verres needle and an infraumbilical 10-mm trocar was inserted. Side-trocars; one 5-mm and one 10-mm trocar were inserted from right lateral region after visualization of extensive intraabdominal adhesions on the left side. Conglomerated and adherent left tuba, ovary and intestines and intraabdominal purulent material due to ruptured abscess was present in exploration. Conglomerate of left pyosalpinx was excised following dissection of intestinal adhesions. Dislocated intrauterine device was found in the conglomerate of TOA. Operation was terminated after the placement of drains. Results Conclusions Dislocated intrauterine devices may cause morbidity due to organ perforation and infection. Laparoscopic surgery is an alternative to open laparotomy also in difficult cases with adhesions with its lower intraoperative and postoperative morbidity rates in experienced hands. Adhesiolysis, surgical drainage, salpingo-oophorectomy and hysterectomy is performed for management of TOA.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Risk factors for adverse clinical outcomes in patients with tubo-ovarian abscess

**Citation:** Journal of Obstetrics and Gynaecology, October 2015, vol./is. 35/7(699-702), 0144-3615;1364-6893 (03 Oct 2015)

**Author(s):** Topcu H.O., Kokanali K., Guzel A.I., Tokmak A., Erkilinc S., Umit C., Dotanay M.

**Language:** English

**Abstract:** This study assessed the risk factors for poor clinical outcomes in patients with tubo-ovarian abscess (TOA). Patients managed with medical therapy and discharged within 7 days without complications constituted the favourable prognosis group (n = 22), whereas those who were managed surgically or discharged after 7 days of antibiotic therapy constituted the poor prognosis group (n = 87). Variables including age, gravidity, number of dilation and curettage procedures, caesarean delivery, smoking status, serum C-reactive protein levels, serum white blood count, body temperature, abscess diameter, presence of an intrauterine device (IUD), duration of IUD placement and length of hospitalisation were evaluated to assess their relationship with the clinical prognosis of TOA. Abscess diameter of > 6 cm was a significant parameter that increased the risk eightfold for poor prognosis. No significant differences were observed regarding the other variables.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *Taylor & Francis* in [Journal of Obstetrics and Gynaecology](#)

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**Title:** In vitro fertilization complicated by rupture of tubo-ovarian abscess during pregnancy.

**Citation:** Taiwanese journal of obstetrics & gynecology, Oct 2015, vol. 54, no. 5, p. 612-616, 1875-6263 (October 2015)

**Author(s):** Han, Cha, Wang, Chen, Liu, Xiao-Juan, Geng, Nv, Wang, Ying-Mei, Fan, Ai-Ping, Yuan, Bi-Bo, Xue, Feng-Xia

**Abstract:** Pelvic abscess during pregnancy is an uncommon complication, but can lead to adverse perinatal outcomes during pregnancy. We present a patient who developed rupture of a tubo-ovarian abscess during pregnancy following in vitro fertilization and embryo transfer. Thirty-eight reported cases are reviewed, and transvaginal oocyte retrieval, genital tract infections, endometrioma, and previous pelvic surgery are considered as risk factors for pelvic abscess during pregnancy. Prolonging gestational duration when an infection situation is allowed is the principle of treatment. Copyright © 2015. Published by Elsevier B.V.

**Source:** Medline

**Full Text:**

Available from *Free Access Content* in [Taiwanese Journal of Obstetrics and Gynecology](#)

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**Title:** A tubo-ovarian abscess identified via colonoscopy

**Citation:** American Journal of Gastroenterology, October 2015, vol./is. 110/(S221-S222), 0002-9270 (October 2015)

**Author(s):** Collins J., Albert D., Singla M.B., Goldkind L.

**Language:** English

**Abstract:** A tubo-ovarian abscess (TOA) is an inflammatory mass involving the fallopian tube and ovary and may extend to the surrounding structures. We present a case of a TOA manifesting as a mucosal defect with intraluminal drainage seen on colonoscopy. A 44-year-old female presented with one month of fevers, chills, left lower quadrant abdominal pain, and 10-20 daily episodes of small volume diarrhea with passage of mucous. She had been admitted to the psychiatry unit for a month due to depression and anxiety secondary to the recent suicide of her daughter. Diarrhea had persisted since her admission. However, upon discharge, she began to have fevers and chills. She had no history of sexually transmitted infections but had an intrauterine device removed at the onset of her symptoms. A CT scan showed a large, complex left ovarian mass involving the rectum and sigmoid with thickening of the colon from the rectum to the transverse colon suggestive of colitis. Due to concern for malignancy, she underwent a colonoscopy, which revealed extrinsic compression of normal sigmoid mucosa and two 2 mm punctate mucosal defects in the sigmoid colon. During careful examination with insufflation, the defects excreted opaque, exudative material. She underwent exploratory laparotomy, modified radical hysterectomy, bilateral salpingo-oophorectomy, and rectosigmoid resection with end-to-end anastomosis. A left-sided fixed mass from ovary to rectosigmoid expressing purulent material was seen with normal appearing bowel. Colon histology showed acute and chronic inflammation and fibrosis of the serosa, muscularis propria, and submucosa with unremarkable mucosa. Ovarian pathology showed acute and chronic inflammation and granulation tissue consistent with a ruptured TOA. Cytology was negative for malignant cells. She was treated with parental antibiotics and made an unremarkable recovery. A TOA is a severe complication of pelvic inflammatory disease (PID). Mortality is low prior to rupture and historical data suggests that mortality from a ruptured TOA may be from 1.7-3.7%. PID may be associated with insertion of an IUD, but rarely with removal. 60-80% of TOA may resolve with antibiotics, but surgery is indicated for ruptured abscesses. Anatomic proximity to the sigmoid colon allows direct involvement with the potential for colonic perforation, fistula formation, or diverticulitis. (Figure Presented).

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *American Journal of Gastroenterology* in [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#)

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**Title:** Diagnostic Value of Serum d-Dimer Level for Tubo-Ovarian Abscess: A Cross-Sectional Pilot Study.

**Citation:** Reproductive sciences (Thousand Oaks, Calif.), Aug 2015, vol. 22, no. 8, p. 927-931, 1933-7205 (August 2015)

**Author(s):** Yilmaz, Bulent, Kasap, Burcu, Demir, Mustafa, Gungorduk, Kemal, Kelekci, Sefa, Sutcu, Recep

**Abstract:** Aim of this study is to investigate the diagnostic role of serum D-dimer levels for tubo-ovarian abscess (TOA). Patients diagnosed with TOA (n = 36) and matched controls with ovarian cysts (n = 39) were collected prospectively. Patients in the 2 groups were compared on the basis of size of TOA or cyst, demographic characteristics, and serum d-dimer levels. Baseline characteristics of both groups were comparable. Mean D-dimer levels were significantly higher ( $P < .0001$ ) in patients with TOA ( $1870.6 \pm 2401.7$  ng/mL) when compared to adnexal cyst group ( $164.4 \pm 81.1$  ng/mL). D-Dimer had a diagnostic value of 99.9%, specificity of 100.0%, and sensitivity of 97.4% based on a cutoff value 314 ng/mL for predicting TOA. In conclusion, serum d-dimer level was significantly elevated in women with TOA compared with benign adnexal cysts. Thus, this inexpensive, feasible, and reproducible marker can be used for differential diagnosis of TOA. © The Author(s) 2015.

**Source:** Medline

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**Title:** Surgical approach of tubo-ovarian abscesses from theory to our minimally invasive practice

**Citation:** Gynecology and Minimally Invasive Therapy, August 2015, vol./is. 4/3(72-75), 2213-3070;2213-3089 (01 Aug 2015)

**Author(s):** Silva F., Silva J., Rocha I., Brito T., Paredes E., Ramalho G., Valente F., Tavares A.

**Language:** English

**Abstract:** Tubo-ovarian abscesses are entities of infectious etiology, mostly as a result of pelvic inflammatory disease. Over the past decades we verified that the treatment is lifesaving and the approach can be, and should be, minimally invasive. The advent of antibiotics, its parenteral combined administration, and the appearance of techniques of drainage, made possible a better treatment of this pathological condition. Objective: Analysis of our experience in tubo-ovarian abscess treatment. Methods: Retrospective study, with database consultation, of all cases of tubo-ovarian abscesses treated in our department during a period of 4 years (2009-2012), with emphasis on our experience using a minimally invasive surgical approach, performed in 22 cases. Results: Forty-five cases medically and surgically treated, with 17 cases undergoing a drainage procedure. Conclusion: A minimally invasive procedure was performed in almost half of the cases with a faster clinical improvement and low morbidity.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Inpatient management of tubo-ovarian abscesses what is the threshold of parenteral antibiotic treatment failure?

**Citation:** Obstetrics and Gynecology, May 2015, vol./is. 125/(23S), 0029-7844 (May 2015)

**Author(s):** Farid H., Karmon A.E., Styer A.K.

**Language:** English

**Abstract:** INTRODUCTION: Although parenteral antibiotic treatment is a standard approach for tubo-ovarian abscesses, a significant proportion fail therapy and require interventional radiology-guided drainage. Unfortunately, there is no consensus of clinical parameters to guide initial antibiotic treatment. The objective of this study is to assess whether specific clinical factors are associated with antibiotic treatment failure. METHODS: A retrospective medical record review of patients hospitalized for tubo-ovarian abscesses from 2001 through 2012 was performed. Clinical characteristics were compared for patients undergoing successful parental antibiotic treatment only, failed parental antibiotic treatment requiring interventional radiology-guided drainage, and initial interventional radiology-guided drainage with concurrent parental antibiotic treatment, with univariate analyses and multivariate logistic regression models (failed antibiotic treatment compared with age, tubo-ovarian abscess diameter, white blood count [WBC]). RESULTS: A total of 113 patients admitted for inpatient treatment were identified. Demographic factors were similar among groups. Sixty-one (54%) patients initially underwent parental antibiotic treatment. Within this group, treatment failed for 24.6%, requiring interventional radiology-guided drainage. Mean WBC ( $18.7 \pm 5.94$  compared with  $13.9 \pm 5.12$ ) [ $P = .003$ ], mean tubo-ovarian abscess size (maximum diameter [cm]) ( $6.8 \pm 2.9$  compared with  $5.2 \pm 2.0$ ) [ $P = .03$ ], and length of stay (days) ( $9.47 \pm 7.43$  compared with  $4.59 \pm 2.4$ ) [ $P = .002$ ] were significantly greater for failed parental antibiotic treatment requiring interventional radiology-guided drainage compared with parental antibiotic treatment only. Respective tubo-ovarian abscess size for failed parental antibiotic treatment requiring interventional radiology-guided drainage and initial interventional radiology-guided drainage with concurrent parental antibiotic treatment was similar. Admission WBC higher than 16,000 was predictive of antibiotic treatment failure (odds ratio: 22.0, 95% confidence interval 2.3-201.2,  $P$  trend .006). CONCLUSION: Admission WBC higher than 16,000 and tuboovarian abscess size larger than 5.2 cm are associated with antibiotic treatment failure. Consideration of these factors may provide useful guidance for initial selection of interventional radiology-guided drainage at the time of admission to optimize treatment efficacy.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *Obstetrics and Gynecology* in [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#)

Available from *Ovid* in [Obstetrics and Gynecology](#)

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**Title:** Tubo-Ovarian Abscess Caused by Candida Albicans in an Obese Patient

**Citation:** Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC, May 2015, vol./is. 37/5(426-429), 1701-2163 (01 May 2015)

**Author(s):** To V., Gurberg J., Krishnamurthy S.

**Language:** English

**Abstract:** BACKGROUND: Tubo-ovarian abscess (TOA) arises in most cases from pelvic infection. Appropriate treatment includes use of antimicrobials and, especially in patients with increased BMI, drainage of the contents. CASE: A 44-year-old morbidly obese woman (BMI 72) had a persistent TOA despite receiving antibiotic treatment for four months. She had no history of diabetes, and denied being sexually active. Imaging demonstrated a pelvic abscess of 14.9 x 8.9 x 11.1 cm. Successful percutaneous drainage was performed yielding purulent material which grew *Candida albicans*. The patient recovered after drainage of the abscess and the addition of fluconazole to her antimicrobials. She had no apparent risk factor for acquiring such an opportunistic infection, other than her morbid obesity. CONCLUSION: Because morbid obesity may confer a relative immunodeficiency, morbidly obese patients may develop unusual infections such as opportunistic fungal abscesses.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Comparison of severe pelvic inflammatory disease, pyosalpinx and tubo-ovarian abscess

**Citation:** Journal of Obstetrics and Gynaecology Research, May 2015, vol./is. 41/5(742-746), 1341-8076;1447-0756 (01 May 2015)

**Author(s):** Kim H.Y., Yang J.I., Moon C.

**Language:** English

**Abstract:** Aim Inflammation of the upper genital tract causes pelvic inflammatory disease (PID), which may be complicated by pelvic abscesses, such as pyosalpinx and tubo-ovarian abscess (TOA). This study aimed to determine the clinical differences between pyosalpinx and TOA in patients with PID. Material and Methods We retrospectively evaluated 458 female patients who were admitted to Hallym University Kang Dong Sacred Heart Hospital for a clinical diagnosis of PID from 1 January 2007 to 30 April 2012. Sociodemographic,

clinical and laboratory data were compared among the non-abscess, pyosalpinx, and TOA groups. Results We identified 110 patients (24%) diagnosed with pelvic abscess associated with PID, including 34 with pyosalpinx and 76 with TOA. The pyosalpinx group had shorter hospital stays ( $P = 0.007$ ), lower C-reactive protein levels ( $P = 0.015$ ), smaller mass sizes ( $P < 0.001$ ), and fewer surgical interventions ( $P < 0.001$ ) than the TOA group. Conclusions Pyosalpinx is a less severe form of PID that leads to shorter hospital stays and more favorable outcomes than TOA.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [Journal of Obstetrics and Gynaecology Research](#)

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**Title:** Ruptured tubo-ovarian abscess caused by normal vaginal flora in the presence of an IUD

**Citation:** BJOG: An International Journal of Obstetrics and Gynaecology, April 2015, vol./is. 122/(101-102), 1470-0328 (April 2015)

**Author(s):** Young R.E.

**Language:** English

**Abstract:** Introduction Infection secondary to IUDs is reported as <1%, and highest following placement. These are predominately due to sexually transmitted infections. Reports have highlighted cases where only normal flora has been found, most notoriously actinomyces associated with IUDs in situ for long periods. Due to this risk RCOG's Faculty of Sexual and Reproductive Healthcare clarified guidelines regarding the removal of IUDs in 2010. As the risk following replacement is approximately 10 times greater than with ongoing use the need for removal should be considered carefully. It is advised that IUDs are removed following menopause. The following patient presented with peritonitis secondary to a unilateral ruptured tubo-ovarian abscess with cultures demonstrating normal vaginal flora. A LNG-IUS had been in situ for 7 years. This case is presented to alert clinicians to the ongoing risk of infection secondary to IUDs in order that removal is considered where clinically appropriate. Case A 38-year-old woman presented with generalised abdominal pain, most severe in the right iliac fossa, and associated nausea and vomiting. There was no reported vaginal discharge. She had previously undergone two caesarean sections with a LNG-IUS inserted 7 years ago. Despite heavy alcohol use and regular smoking she was generally well. There was no history of known STIs or PID and no current sexual partner. She became febrile, tachycardic and hypotensive in emergency with guarding and rebound tenderness in the right lower quadrant. Cervical excitation was noted, with yellow discharge around the cervix, pooling in the posterior fornix. Investigations demonstrated leucocytosis, a negative beta-hCG and unremarkable MSU. Small pelvic and right paracolic gutter ascites were seen on CT with no evidence of appendicitis and LNG-IUS placement confirmed. Laparoscopy demonstrated frank pus around the liver and right paracolic gutter. The right



fallopian tube was inflamed, the left of normal appearance. No other abnormality was seen with conversion to laparotomy. Purulent fluid was expressing from the right salpinx, and the LNG-IUS was removed. The patient recovered well on antibiotics with preoperative and intraoperative swabs negative for chlamydia and gonorrhoea, growing normal vaginal flora. Conclusion Tubo-ovarian abscesses may occur secondary to normal vaginal flora. In this patient the LNG-IUS had not been removed despite lack of current use as a contraceptive. Removal should be recommended to patients where a device is no longer required.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [BJOG: An International Journal of Obstetrics and Gynaecology](#)

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**Title:** Coexistence of ruptured ectopic tubal pregnancy, dermoid and endometriotic cyst with tubo-ovarian abscess in the same adnexa: case report.

**Citation:** Acta clinica Croatica, Mar 2015, vol. 54, no. 1, p. 103-106, 0353-9466 (March 2015)

**Author(s):** Kuna, Krunoslav, Grbavac, Ivan, Vuković, Ante, Bilić, Nada, Kraljević, Zdenko, Butorac, Dražan

**Abstract:** A 32-year-old pregnant woman presented to the hospital with abdominal pain and minimal vaginal bleeding. Transvaginal ultrasound revealed visible fluid in pelvic region with suspected tubal rupture, and subsequently laparoscopy was performed. During laparoscopy, additional gynecologic pathologies were noticed. Histopathologic finding showed dermoid and endometriotic cyst, as well as tubo-ovarian abscess in the same adnexa. This case report highlights the necessity of considering multiple diagnoses in the same organic system, which may be encountered by surgeon and histopathologist.

**Source:** Medline

**Full Text:**

Available from *Free Access Content* in [Acta Clinica Croatica](#)

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**Title:** Minimally invasive approach of tubo-ovarian abscesses.

**Citation:** Revista brasileira de ginecologia e obstetrícia : revista da Federação Brasileira das Sociedades de Ginecologia e Obstetrícia, Mar 2015, vol. 37, no. 3, p. 115-118, 1806-9339 (March 2015)

**Author(s):** Silva, Fátima, Castro, Jorge, Godinho, Cristina, Gonçalves, João, Ramalho, Graça, Valente, Francisco

**Abstract:** To evaluate the treatment outcome of tubo-ovarian abscesses managed by transvaginal ultrasound-guided aspiration. Descriptive analysis of all patients with tubo-ovarian abscesses treated with a minimally invasive procedure, ultrasound-guided drainage, at the Department of Gynecology, Centro Hospitalar Vila Nova de Gaia/Espinho, during a period of 5 years (from June 2009 to June 2014). Twenty-six cases were included in the study. The mean age of the study group was 42.8 years. All patients were submitted to transvaginal ultrasound-guided aspiration and sclerosis with iodated solution, as well as received broad-spectrum intravenous antibiotics. The mean time from admission to drainage was 2.5 days. Cultures for aerobic and anaerobic pathogens were positive in 14 of the 26 cases. A complete response was noted in 23 of the 26 cases. No complications or morbidity were noted as a consequence of the drainage procedures. Minimally invasive treatment of tubo-ovarian abscesses by transvaginal ultrasound-guided drainage is an effective and safe approach.

**Source:** Medline

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**Title:** Preoperative Neutrophil-to-Lymphocyte Ratio Has a Better Predictive Capacity in Diagnosing Tubo-Ovarian Abscess.

**Citation:** Gynecologic and obstetric investigation, Jan 2015, vol. 80, no. 4, p. 234-239, 1423-002X (2015)

**Author(s):** Yildirim, Melahat, Turkyilmaz, Esengul, Avsar, Ayse Filiz

**Abstract:** The aim of this study is to identify the inflammatory markers which predict a tubo-ovarian abscess (TOA) in the most accurate way. This study involves 312 women. Preoperative inflammatory markers in the study group were compared with those in the healthy control group to identify the most efficient predictor of TOA with a high sensitivity and specificity. The recommended cutoff values of the neutrophil-to-lymphocyte ratio (NLR), platelet-to-lymphocyte ratio (PLR), white blood cell count, and red cell distribution width were determined using receiver operating characteristic curve (ROC) analyses. The area under the curve (AUC = 0.99) in the ROC analysis was found to be statistically significant for NLR ( $p < 0.001$ ) with a cutoff value of  $\geq 4.15$  (95% CI 0.97-1.00, sensitivity 95.2%, specificity 99.4%). The positive predictive value of NLR was 99.2%, and the negative predictive value was 96.7% ( $p < 0.001$ ). The recommended threshold for PLR was found to be 164.37 (AUC = 0.95, 95% CI 0.93-0.98, sensitivity 86.7%, specificity 92%), and the cutoff point of the white blood cell count in the ROC analysis was  $9.55 \times 10^3/\mu\text{l}$  (AUC = 0.90, 95% CI 0.87-0.95, sensitivity 78.68%, specificity 96.68%). Preoperative NLR and PLR improve the predictive value of serum markers for the presence of TOA. © 2015 S. Karger AG, Basel.

**Source:** Medline

**Full Text:**

Available from *ProQuest* in [Gynecologic and Obstetric Investigation](#)

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**Title:** Risk factors for adverse clinical outcomes in patients with tubo-ovarian abscess.

**Citation:** Journal of obstetrics and gynaecology : the journal of the Institute of Obstetrics and Gynaecology, Jan 2015, vol. 35, no. 7, p. 699-702, 1364-6893 (2015)

**Author(s):** Topçu, H O, Kokanalı, K, Güzel, A I, Tokmak, A, Erkılınç, S, Ümit, C, Doğanay, M

**Abstract:** This study assessed the risk factors for poor clinical outcomes in patients with tubo-ovarian abscess (TOA). Patients managed with medical therapy and discharged within 7 days without complications constituted the favourable prognosis group (n = 22), whereas those who were managed surgically or discharged after 7 days of antibiotic therapy constituted the poor prognosis group (n = 87). Variables including age, gravidity, number of dilation and curettage procedures, caesarean delivery, smoking status, serum C-reactive protein levels, serum white blood count, body temperature, abscess diameter, presence of an intrauterine device (IUD), duration of IUD placement and length of hospitalisation were evaluated to assess their relationship with the clinical prognosis of TOA. Abscess diameter of  $\geq 6$  cm was a significant parameter that increased the risk eightfold for poor prognosis. No significant differences were observed regarding the other variables.

**Source:** Medline

**Full Text:**

Available from *Taylor & Francis* in [Journal of Obstetrics and Gynaecology](#)

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**Title:** The evaluation of risk factors for failed response to conservative treatment in tubo-ovarian abscesses.

**Citation:** Journal of the Turkish German Gynecological Association, Jan 2015, vol. 16, no. 4, p. 226-230, 1309-0399 (2015)

**Author(s):** Akkurt, Mehmet Özgür, Yalçın, Serenat Eris, Akkurt, İltaç, Tatar, Burak, Yavuz, And, Yalçın, Yakup, Akgül, Mehmet Akif, Kayıkçıoğlu, Fulya

**Abstract:** The aim of our study is to assess the risk factors for medical treatment failure and to predict the patients who will require the surgical therapy as well as to predict the factors affecting treatment success. This was a cross-sectional study including 76 women with tubo-ovarian abscesses (TOA) who were either conservatively or surgically treated and were admitted to two gynecology units over a 4-year period. The demographic characteristics of the patients, gynecologic and obstetric histories, size and localization of abscesses were recorded. Gentamicin plus clindamycin treatment protocol was implemented for all patients. Ampicillin treatment was added in three patients with the positive culture of *Actinomyces*. Response to treatment was evaluated after 48-72 h. Patients who fail to respond to medical treatment required surgery or percutaneous drainage. We compared clinical and laboratory factors between the groups. In surgery group, patients were significantly older than the others ( $44.9 \pm 5.4$  versus  $39.1 \pm 7.6$  years). Fifty-six patients (74%) responded to antibiotics and 20 of the patients required surgical intervention. Patients treated with antibiotics were hospitalized for an average of  $6.32 \pm 2.8$  days versus  $12.75 \pm 5.6$  days for those who required surgery ( $p=0.021$ ). Patients who were surgically treated had a

mean size of TOA of 67.9±11.2 mm versus 53.6±9.4 mm for those treated with antibiotics alone (p=0.036). There were no significant differences between groups in laboratory parameters, except for initial white blood cell (WBC) counts. The complications of surgery included in descending order of frequency blood transfusions, surgical wound infections, bowel injury, and bladder injury. An increased size of pelvic mass, higher initial WBC counts, advanced age, and smoking were all associated with failed response to conservative treatment. It is important to identify the risk factors to distinguish patients who will respond to antibiotic therapy and those who will need a surgical treatment. Thus, the required early intervention can result in a reduction in the morbidity associated with TOA.

**Source:** Medline

**Full Text:**

Available from *National Library of Medicine* in [Journal of the Turkish German Gynecological Association](#)

Available from *ProQuest* in [Journal of The Turkish German Gynecological Association](#)

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**Title:** Tubo-ovarian abscess secondary to actinomycosis: unexpected presentation and its treatment

**Citation:** Gynecological Surgery, 2015, vol./is. 12/1(53-55), 1613-2076;1613-2084 (2015)

**Author(s):** Moustafa M.

**Language:** English

**Abstract:** This is a case of an ovarian actinomycosis diagnosed as a complex ovarian cyst by ultrasound in asymptomatic patient. The ovarian tumour markers were within normal. The tube and ovary were removed laparoscopically. She received 2 weeks of daily IV 1 g of ceftriaxone, followed by 6 months of oral amoxicillin. CT scan did not show evidence of actinomycosis elsewhere. She did not give any history of intrauterine contraceptive use.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Feasibility of laparoscopic approach in tubo-ovarian abscess

**Citation:** Journal of Minimally Invasive Gynecology, November 2014, vol./is. 21/6 SUPPL. 1(S75), 1553-4650 (November-December 2014)

**Author(s):** Bhardwaj P.

**Language:** English

**Abstract:** Category Re-productive issues Feasibility of laparoscopic approach in tubo-ovarian abscess. Pelvic abscesses are end stage of genital tract infection and is frequently preventable. Symptomatic and subclinical infections can lead rapidly to tubo-ovarian abscess . Untreated tubo-ovarian abscess may rupture and result in life threatening peritonitis. Because it is a cause of chronic pelvic pain and because it has negative impact on fertility tubo-ovarian abscess is major health concern 25% of abscesses require surgery - no response to antibiotic treatment in 48 -72 hours, drainage of abscesses, scar tissue incision that is causing pain. Laparoscopy offers the possibility to diagnose and manage PID early, safely and cost effectively. Effective management prevents complications associated with delayed treatment and often preserve patients fertility and prevents catastrophe. Laparoscopy improves the primary recovery of acute PID patients.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Identification of Clostridium septicum in a tubo-ovarian abscess: a rare case and review of the literature

**Citation:** Vojnosanitetski pregled, September 2014, vol./is. 71/9(884-888), 0042-8450 (01 Sep 2014)

**Author(s):** Yavuzcan A., Caglar M., Dilbaz S., Kumru S., Avcioglu F., Ustun Y.

**Language:** English

**Abstract:** INTRODUCTION: Tubo-ovarian abscess (TOA) is a conglomerated mass of pelvic organs including the tube, the ovary, and the bowel. The most commonly isolated organisms from TOAs are Escherichia coli (E. coli) and Bacteroides species.CASE REPORT: We reported a case of Clostridium septicum (C. septicum) infection from a ruptured TOA with atypical clinical features. Culture of intra-abdominal free fluid obtained during surgery yielded C. septicum. VITEK II (bioMerieux, France) automated system was used for advanced identification of the bacteria. Parenteral clindamycin in combination with an aminoglycoside was used. The patient was discharged 19 days after the surgery and was clinically asymptomatic 6 months after the surgery.CONCLUSION: The differential diagnosis of TOA caused by C. septicum can be difficult, due to the lack of the symptoms. Tissues infected with C. septicum can become necrotic. A combination of early, adequate antibiotic therapy and surgery is the key point of the treatment.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *Free Access Content* in [Vojnosanitetski Pregled](#)

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**Title:** Actinomyces bacteremia in association with tubo-ovarian abscesses and hysteroscopic sterilization.

**Citation:** *Obstetrics and gynecology*, Aug 2014, vol. 124, no. 2 Pt 2 Suppl 1, p. 451-453, 1873-233X (August 2014)

**Author(s):** Pakish, Janelle B, West, Loyd

**Abstract:** Actinomyces infection is well-documented in intrauterine devices but has not been previously associated with hysteroscopic sterilization using coil inserts. Additionally, abscesses associated with these implants have been observed in few cases. A 31-year-old multiparous woman with a history of hysteroscopic sterilization with coil inserts 18 months previously presented with several weeks of pelvic pain. Despite percutaneous drainage of intra-abdominal abscesses, her pain and fevers persisted. Blood cultures were positive for Actinomyces infection, and exploratory laparotomy demonstrated abscesses at both coil sites. When a causative organism cannot be identified or the when patient does not respond to standard antibiotic therapy, Actinomyces infection should be considered because prolonged antibiotic therapy is necessary.

**Source:** Medline

**Full Text:**

Available from *Obstetrics and Gynecology* in [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#)

Available from *Ovid* in [Obstetrics and Gynecology](#)

Available from *Ovid* in [Obstetrics and gynecology.](#)

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**Title:** Chicken or egg? Appendicitis and a tubo-ovarian abscess

**Citation:** *Irish Journal of Medical Science*, July 2014, vol./is. 183/4 SUPPL. 1(S152), 0021-1265 (July 2014)

**Author(s):** Suiter C.S., Mohan H.M., Schmidt K.S.

**Language:** English

**Abstract:** Background: A tubo-ovarian abscess is an inflammatory mass involving the fallopian tube and ovary. Here we report a case of a tubo-ovarian abscess occurring with appendicitis. Case: A 36-year-old lady was admitted with right iliac fossa pain, on a background of a recently diagnosed left sided 18 cm ovarian cyst. Her inflammatory markers were elevated. She underwent a CT abdomen/pelvis which revealed in addition to the left sided cyst, an inflammatory mass in the right adnexal region, which appeared to contain a faecolith. A multi-disciplinary approach was taken and she underwent laparoscopy with gynaecology and general surgery present. Following aspiration of the left sided ovarian cyst, a right sided tubo-ovarian abscess was visible with the appendix entering the mass.

Following conversion to open, she underwent drainage of the abscess, appendicectomy, retrieval of the faecolith and washout. She made a good post-operative recovery. Discussion: In this case, it is unclear whether appendicitis occurred secondary to the tubo-ovarian abscess, or whether appendicitis caused inflammation of the tube and ovary. According to the literature however tubo-ovarian abscess are more commonly caused by an acute appendicitis rather than the other way around. There have been several reports of tubo-ovarian abscess secondary to appendicitis [1, 2]. Conclusion: This unusual case highlights the possibility for multiple co-existing pathologies and the importance of a multidisciplinary approach.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *Springer Link Journals* in [Irish Journal of Medical Science](#)

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**Title:** Case study: A rare cause of tubo ovarian abscess-thread worm (*Enterobius vermicularis*) infestation

**Citation:** BJOG: An International Journal of Obstetrics and Gynaecology, April 2014, vol./is. 121/(181), 1470-0328 (April 2014)

**Author(s):** Surasinghe R.U.K., Chinthana H.D.K., Karunaratne K., Madushanka J.K.V.

**Language:** English

**Abstract:** Background *Enterobius vermicularis* is an intestinal nematode of humans that uses the human body to survive and reproduce. Its infection is not medically serious, but it can be troublesome on rare occasions when the worm invades tissue. The female genital tract is the most frequent site of extraintestinal parasitism of *E. vermicularis*. Case A 47-year-old mother of 2 children presented with abdominal pain for 1 month duration. According to the history she was not treated for worm infestations during last 5 years. Abdominal examination was unremarkable. ultrasound scan of the abdomen and pelvis revealed right ovarian mixed echogenic mass (3.2x3.9x3.6) with small area of peripheral calcification. Haemoglobin level was 9.8 g/dL with more or less normal differential count. Carcinogenic antigen (CA125) was raised (122 U/mL). Erythrocyte sedimentation rate test is 8 mm. Laparotomy revealed frozen pelvis with bilateral tubo ovarian abscesses. Histology reported bilateral pelvic inflammatory disease and endometriosis of the parametrium with one ovary containing a thread worm. During the postoperative period the stool examination revealed the same worm infestation. Thus the patient was treated with mebendazole postoperatively. Conclusion The principal mode of transmission of enteroparasites occurs with the accidental ingestion of the eggs in the infective stage. Ordinarily, after a nocturnal egg laying excursion, the gravid female worms either die or return through the anus to their proper intestinal habitat. Occasionally, they lose their way and enter the vagina, ascend through the genital tract which leads to ectopic enterobiasis. The Scotch tape test and identifying pin worm eggs under microscopy in a prepared stool sample or identifying an

adult worm in stool samples are methods of detecting pin worm infestation. Mebendazole 100 mg twice daily for 3 days is the standard treatment for enterobiasis. Most importantly treating all the members in the family at the same time should be done. Drug treatment should be combined with hygiene measures. Ovarian enterobiasis is a very rare phenomenon and this is the first documented case in the Sri Lankan medical literature. Essentially pharmacological management needs to be combined with hygiene measures and to achieve the target all family members should undergo the treatment simultaneously.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [BJOG: An International Journal of Obstetrics and Gynaecology](#)

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**Title:** Vesico-ovarian fistula as a result of tubo-ovarian abscess; a radiological and clinical diagnostic challenge

**Citation:** BJOG: An International Journal of Obstetrics and Gynaecology, April 2014, vol./is. 121/(2-3), 1470-0328 (April 2014)

**Author(s):** Khafizova L., Minas V., Alam A.M.

**Language:** English

**Abstract:** Background Tubo-ovarian abscess is a late complication of pelvic inflammatory disease. These usually occur in young women but can occur rarely in postmenopausal patients. Symptoms vary and can be atypical. Gynaecological, gastrointestinal and urinary symptoms may present. Ultrasound is the main imaging tool used in the assessment of such patients. Magnetic resonance imaging and computed tomography are useful adjuncts especially for indeterminate adnexal masses. Case A 29-year-old woman with a 12-month history of left iliac fossa pain presented to the gynaecological outpatient department. She suffered with recurrent urinary tract infections and an episode of pyelonephritis. Ultrasound scan showed a normal renal tract and a left ovarian haemorrhagic cyst which was initially managed conservatively. Despite several courses of antimicrobial treatment she continued to complain of suprapubic pain, urgency and passing cloudy and offensive urine. To investigate her symptoms further a computed tomography scan of her abdomen and pelvis was performed and revealed normal urinary tract and possible tubo-ovarian abscesses. However, these findings still did not provide an explanation for her recurrent urinary tract infections. A cystoscopy was then performed which revealed a fistula at the bladder's dome that was discharging pus like material into the bladder. A diagnosis of possible pelvic abscess erosion into the bladder with associated fistulation was made and the patient underwent laparotomy to drain the abscesses and repair her bladder. Conclusion In conclusion, imaging techniques are essential in the assessment of patients with possible pelvic inflammatory disease. Ultrasonography is a valuable initial investigation, but the findings can be non-specific. In these cases magnetic resonance imaging and computed tomography can provide



additional information and differentiate an abscess from other types of pelvic masses. The rare presentation discussed here teaches us that cases of recurrent urinary tract infections require careful evaluation of both the pelvis and bladder.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [BJOG: An International Journal of Obstetrics and Gynaecology](#)

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**Title:** Pelvic inflammatory disease in women with endometriosis is more severe than in those without

**Citation:** Australian and New Zealand Journal of Obstetrics and Gynaecology, April 2014, vol./is. 54/2(162-165), 0004-8666;1479-828X (April 2014)

**Author(s):** Elizur S.E., Lebovitz O., Weintraub A.Y., Eisenberg V.H., Seidman D.S., Goldenberg M., Soriano D.

**Language:** English

**Abstract:** Aims To determine the incidence and severity of acute pelvic inflammatory disease (PID) or tubo-ovarian abscess (TOA) in hospitalised women with and without a history of endometriosis. Methods Retrospective analysis of hospital records retrieved for all women hospitalised with PID or TOA between January 2008 and December 2011 in a tertiary referral centre. Women were compared with regard to a history of endometriosis for demographic, clinical and fertility data. Results 26 (15%) of the 174 women hospitalised due to PID or TOA were excluded because of age older than 45 years, leaving 148 for analysis. The mean age was 35.7 +/- 9.3 years and mean duration of hospitalisation was 5.9 +/- 3.7 days. The women were divided into two groups: Group 1 with endometriosis (n = 21) and Group 2 without endometriosis (n = 127). Women in Group 1 as compared with Group 2 were significantly more likely to have undergone a fertility procedure prior to being admitted to the hospital with PID (9/27 (45%) vs 22/121 (17%), P < 0.001); particularly in vitro fertilisation (IVF) (7/ 27 (33%) vs 12/121 (9%), P < 0.006); Women in Group 1 more frequently experienced a severe and complicated course involving longer duration of hospitalisation (8.8 +/- 4.7 vs 4.4 +/- 2.3 days, P < 0.0001) and antibiotic treatment failure (10/27 (48%) vs 8/121 (6%), P < 0.0001). Conclusions Pelvic inflammatory disease in women with endometriosis is more severe and refractory to antibiotic treatment, often requiring surgical intervention. It is likely that endometriosis is a risk factor for the development of severe PID, particularly after IVF treatment. © 2014 The Royal Australian and New Zealand College of Obstetricians and Gynaecologists.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [Australian and New Zealand Journal of Obstetrics and Gynaecology](#)

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**Title:** Tuboovarian abscess as primary presentation for imperforate hymen.

**Citation:** Case reports in obstetrics and gynecology, Jan 2014, vol. 2014, p. 142039., 2090-6684 (2014)

**Author(s):** Ho, Jeh Wen, Angstetra, D, Loong, R, Fleming, T

**Abstract:** Objective. Imperforate hymen represents the extreme in the spectrum of hymenal embryological variations. The archetypal presentation in the adolescent patient is that of cyclical abdominopelvic pain in the presence of amenorrhoea. We reported a rare event of imperforate hymen presenting as a cause of tuboovarian abscess (TOA). Case Study. A 14-year-old girl presented to the emergency department complaining of severe left iliac fossa pain. It was her first episode of heavy bleeding per vagina, and she had a history of cyclical pelvic pain. She was clinically unwell, and an external genital examination demonstrated a partially perforated hymen. A transabdominal ultrasound showed grossly dilated serpiginous fallopian tubes. The upper part of the vagina was filled with homogeneous echogenic substance. Magnetic resonance imaging (MRI) demonstrated complex right adnexa mass with bilateral pyo-haemato-salpinges, haematometra, and haematocolpos. In theatre, the imperforate hymen was opened via cruciate incision and blood was drained from the vagina. At laparoscopy, dense purulent material was evacuated prior to an incision and drainage of the persistent right TOA. Conclusion. Ideally identification of imperforate hymen should occur during neonatal examination to prevent symptomatic presentation. Our case highlights the risks of late recognition resulting in the development of sepsis and TOA.

**Source:** Medline

**Full Text:**

Available from *ProQuest* in [Case Reports in Obstetrics and Gynecology](#)

Available from *National Library of Medicine* in [Case Reports in Obstetrics and Gynecology](#)

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**Title:** Experience of tubo-ovarian abscess in western Turkey

**Citation:** International Journal of Gynecology and Obstetrics, January 2014, vol./is. 124/1(45-50), 0020-7292;1879-3479 (January 2014)

**Author(s):** Gungorduk K., Guzel E., Asicioglu O., Yildirim G., Ataser G., Ark C., Gulova S.S., Uzuncakmak C.

**Language:** English

**Abstract:** Objective To investigate the clinical and laboratory parameters, treatments, and complications of patient with tubo-ovarian abscess (TOA). Methods Data for 296 patients diagnosed with TOA (clinically and sonographically) between January 2005 and December 2012 were retrospectively reviewed at 3 tertiary referral hospitals in Turkey. Patients were compared on the basis of TOA size, demographic characteristics, clinical and sonographic presentation, and laboratory findings. Results Seventy-six patients (25.7%) underwent surgery because antibiotic treatment was unsuccessful. The mean abscess size was larger and the mean C-reactive protein (CRP) level and the erythrocyte sedimentation rate (ESR) were higher among patients who required surgery. The ESR had a diagnostic value of 83.6%, and a specificity and sensitivity of 73.7% and 82.7%, respectively, for the need for surgical intervention, based on a cut-off value of 63.0 mm/hour. The CRP level had a diagnostic value of 80.4%, a specificity of 82.3%, and a sensitivity of 65.8% based on a cut-off value of 21.0 mg/L. Conclusion The combined use of the sonographic TOA diameter and laboratory parameters (ESR and CRP level) can aid clinical treatment decisions and improve the prediction of the outcome of medical TOA treatment.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Tubo-ovarian abscess-to drain or not to drain?

**Citation:** Journal of Minimally Invasive Gynecology, November 2013, vol./is. 20/6 SUPPL. 1(S97), 1553-4650 (November-December 2013)

**Author(s):** Squires R., Ramanathan C., Uchil D.

**Language:** English

**Abstract:** Study Objective: Is primary laparoscopic management of Tubo ovarian abscess (TOA) associated with reduced morbidity and hospital stay? Design: Retrospective case review over a five-year period. Setting: Teaching hospital in inner London, UK. Patients: 39 women with tubo-ovarian abscess. Intervention: Primary laparoscopic management vs. secondary surgical management and non-surgical management. Measurements and Main Results: Patient ages ranged from 13-69 years with 21 (53%) > 40 years. Most women were parous (79%) and 17 (44%) had an IUCD/IUS in situ and in 65%, the coil was present for > 5 years. In only 2 cases (5%), was there evidence of a STI (gonorrhoea & chlamydia). Seven women (18%) underwent primary laparoscopic surgery with drainage of abscess and 21 (54%) had second line surgical management after attempted medical management with antibiotics. In these cases, the approach was either laparoscopy (n= 15) or laparotomy (n=6). Eleven women (28%) had non-surgical management; either antibiotic therapy alone (n=10) or antibiotics followed by ultrasound drainage. Primary laparoscopic management resulted in shorter hospital stay (mean 3.4 days) compared to delayed surgery (mean 6.5 days) and non-surgical management (mean 6.1 days). In addition, no women having initial laparoscopic management had critical care admissions or short-term postoperative complications. All four women requiring intensive care had second line surgery. Eight

women had postoperative complications; four undergoing second line laparoscopic surgery (2 pneumonia, 1 pulmonary embolism, 1 chest pain of undefined origin); two undergoing open surgery (paralytic ileus and small bowel obstruction) and 2 undergoing non-surgical management (pelvic pain requiring further surgery, recurrent pulmonary emboli).

Conclusion: Although limited by small numbers, this study suggests that surgical intervention is often required in tubo-ovarian abscesses and that primary laparoscopic management is associated with reduced postoperative stay and morbidity compared to delayed surgical management.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Ultrasound Diagnosis of Bilateral Tubo-ovarian Abscesses in the Emergency Department.

**Citation:** The western journal of emergency medicine, Nov 2013, vol. 14, no. 6, p. 641-642, 1936-900X (November 2013)

**Author(s):** Stanley, Kristi, Morato, Daniela, Chilstrom, Mikaela

**Source:** Medline

**Full Text:**

Available from *National Library of Medicine* in [Western Journal of Emergency Medicine](#)

Available from *National Library of Medicine* in [Western Journal of Emergency Medicine](#)

Available from *Free Access Content* in [Western Journal of Emergency Medicine](#)

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**Title:** Laparoscopic approach to tubo-ovarian abscesses

**Citation:** Gynecological Surgery, October 2013, vol./is. 10/(S16-S17), 1613-2076 (October 2013)

**Author(s):** Aleksandrov O., Olga S., Michael A.

**Language:** English

**Abstract:** In this study laparoscopic approach to tubo-ovarian abscesses was evaluated. Laparoscopic surgery has significant advantage in terms of preserving hormonal and reproductive function. This approach is usually safe, efficacious, cost-effective and minimally invasive. Introduction: Tubo-ovarian abscess and complex is a severe complication of PID which also can result in pyosalpinx and peritonitis. Findings indicate that TOA develops in up to 30% of women hospitalized for PID. The approach to TOA is still a highly debatable issue. The abscess cavity should be thoroughly irrigated and aspirated until all pus is completely removed. The most problematic cases are the antibiotics-resistant tuboovarian abscess. Material and Methods: There were 126 women with TOA observed. The mean age was

28+/-7,1 years. A unilateral TOA was present in 116 patients (92%). All patients were operated using laparoscopic access. All patients were treated during 72 hours before operation using broad-spectrum antibiotics, infusion therapy (2-3 liters per day), anti-inflammatory drugs, immunomodulatory drugs, etc. The mean time of an operation was 35+/-13,5 min. We were focused on saving ovarian tissue for infertile and nulliparous women. Results: There was performed lysis of pelvic adhesions, drainage and irrigation of the pelvic cavity with 5 liters of physiologic saline. Removing of a unilateral infectious complex and resection of ovary was done for 81 patients. There was not revealed any complications after using this strategy. Discussion: Laparoscopic surgery which diminishes postoperative complications should be the first choice in the managing of TOA. However, it is a main priority to provide adequate preoperative treatment and postoperative rehabilitation.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Tubo-ovarian Abscess in Virginal Adolescent Females: A Case Report and Review of the Literature

**Citation:** Journal of Pediatric and Adolescent Gynecology, August 2013, vol./is. 26/4(99-102), 1083-3188;1873-4332 (August 2013)

**Author(s):** Goodwin K., Fleming N., Dumont T.

**Language:** English

**Abstract:** Background: A tubo-ovarian abscess (TOA) is a serious complication of pelvic inflammatory disease (PID), predominantly polymicrobial and present in sexually active women. TOA in virginal adolescent females are extremely rare but have serious and lifelong consequences. Case: A 13 y.o. virginal female presented to the Emergency Room of a tertiary care pediatric hospital with abdominal pain and vomiting. Imaging suggested bowel compromise with potential perforation. An exploratory laparotomy revealed TOA which grew *Escherichia Coli*. This is the first reported case of *Escherichia Coli* TOA due to suspected bowel translocation. Conclusion: Review of the literature identified 8 cases of TOA in virginal adolescents. Given the severity of outcomes following TOA, this pathology should be considered in the differential diagnosis of virginal adolescents who present with fever and abdominal pain. If suspected, a prompt gynecology consult should be initiated, followed by a first line antibiotic therapy and when indicated, surgical drainage. &#xa9; 2013.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Evaluating the risk factors for developing resistance to parenteral therapy for tubo-ovarian abscess: a case-control study.

**Citation:** The journal of obstetrics and gynaecology research, May 2013, vol. 39, no. 5, p. 1019-1023, 1447-0756 (May 2013)

**Author(s):** Mizushima, Taichi, Yoshida, Hiroshi, Ohi, Yuka, Ishikawa, Masahiko, Hirahara, Fumiki

**Abstract:** The aim of this study was to identify factors that can predict the resistance to parenteral therapy in patients with tubo-ovarian abscesses (TOA). We conducted a case-control study involving 55 admitted patients with TOA. The subjects eligible for this study included 28 patients who failed antibiotic therapy and required surgery (surgical cases) and 27 patients who were conservatively cured (control cases). The clinical characteristics of the patients on admission were reviewed. Logistic regression analysis was performed after univariate analysis to identify potentially important variables and to calculate odds ratios with 95% confidence intervals. As per the univariate analysis, compared to the control cases, the surgical cases were older (40.4 vs 31.5 years), had higher white blood cell counts (14000 vs 11828 cells/mm<sup>3</sup>), higher C-reactive protein levels (16.1 vs 7.6 mg/dL), and a larger abscess diameter (6.6 vs 3.9 cm). There were no significant differences in gravidity, parity, body temperature, rate of endometrial cyst formation, and Chlamydia trachomatis infection rates between the groups. Multiple logistic regression analysis indicated that the only statistically significant risk factor predicting parenteral antibiotic therapy failure was the abscess diameter >5 cm (odds ratio = 69.6; 95% confidence interval = 9.3-527, P < 0.0001). An abscess diameter >5 cm is an important factor for predicting the failure of antibiotic therapy in patients with TOA. Moreover, it is useful for determining whether patients with TOA should be surgically treated. © 2013 The Authors. Journal of Obstetrics and Gynaecology Research © 2013 Japan Society of Obstetrics and Gynecology.

**Source:** Medline

**Full Text:**

Available from *John Wiley and Sons* in [Journal of Obstetrics and Gynaecology Research](#)

Available from *John Wiley and Sons* in [Journal of Obstetrics and Gynaecology Research](#)

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**Title:** The role of the serum inflammatory markers for predicting the tubo-ovarian abscess in acute pelvic inflammatory disease: A single-center 5-year experience

**Citation:** Archives of Gynecology and Obstetrics, March 2013, vol./is. 287/3(519-523), 0932-0067;1432-0711 (March 2013)

**Author(s):** Demirtas O., Akman L., Demirtas G.S., Hursitoglu B.S., Yilmaz H.

**Language:** English

**Abstract:** Objective: To compare patients with tubo ovarian abscess (TOA) and non-TOA acute pelvic inflammatory disease (PID) and to determinate admitted day laboratory cut-off values for the TOA. Materials and methods: Files of inpatients admitted to our clinic with the diagnoses of PID and/or TOA between the years of 2006 and 2011. Laboratory and culture results were obtained from the database of hospital. A total of 73 patients diagnosed with PID and/or TOA were evaluated. Patients who were diagnosed with TOA and PID by physical and sonographic examination were assigned to group 1 and group 2, respectively. Both groups were compared in terms of laboratory, clinical, and epidemiological parameters. Results: Of 73 patients admitted with the diagnosis of PID, 44 (60.3 %) were found to have TOA, and 29 (39.7 %) were not found. Mean age of patients was determined as 41.4 +/- 7.7 in group 1 and as 35.1 +/- 6.8 in group 2. Abscess was detected more frequently in patients with low socio-cultural level, and this was found to be statistically significant. The diameter of abscess was found to be >5 cm in 39 (88.6 %) patients and <5 cm in 5 (11.4 %) patients. The average length of hospital stay was statistically significantly increased in patients with an abscess of >5 cm in size compared to patients with an abscess of <5 cm. When C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), leukocyte counts were statistically evaluated by ROC curves, diagnostic ability of CRP, ESR and leukocyte count was found to be 73, 87, and 58 %. CRP has a specificity of 63 % and a sensitivity of 72 % if cut-off value is considered as 11.5 mg/L whereas ESR has a specificity of 83 % and a sensitivity of 79 % if cut-off value is considered as 19.5 mm/1/2 h. Conclusion: ESR >19.5 mm/1/2 h and CRP >11.5 mg/L were the best predictors of TOA. The high level of CRP and ESR was associated with longer duration of hospitalization and disease severity, and these levels were statistically significantly associated with TOA size of >5 cm. © 2012 Springer-Verlag Berlin Heidelberg.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *Springer Link Journals* in [Archives of Gynecology and Obstetrics](#)

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**Title:** Tuboovarian abscess. Factors associated with operative intervention after failed antibiotic therapy.

**Citation:** The Journal of reproductive medicine, Mar 2013, vol. 58, no. 3-4, p. 101-106, 0024-7758 (2013 Mar-Apr)

**Author(s):** Greenstein, Yanina, Shah, Ami J, Vragovic, Olivera, Cabral, Howard, Soto-Wright, Valena, Borgatta, Lynn, Kuohung, Wendy

**Abstract:** To evaluate whether size of tuboovarian abscess (TOA) and other clinical characteristics were associated with the need for surgical intervention. A retrospective chart review of patients hospitalized at an inner city hospital between January 1998 and December 2007 with the diagnosis of TOA. Demographics, medical history, clinical markers of infection, radiology, pathology, and operative reports were examined. Student's t test and Fisher's exact test were utilized to analyze differences between groups. Multiple logistic

regression analysis was performed to identify significant predictors of surgery. Receiver operating characteristic (ROC) analysis was used to assess how well TOA size and other significant variables were associated with the need for operative or procedural intervention. A total of 163 patients with TOA were identified; 41 patients were excluded based on specific criteria. Of the remaining 122 women, 65.6% responded to antibiotic therapy, and 34.4% had surgery or ultrasound-guided drainage. Mean TOA size in the medical group was 4.4 cm as compared to 7.3 cm in the surgical group ( $p < 0.0001$ ). Maximal leukocyte count, older age, and parity were associated with significantly higher risk of surgery. The significant univariate variables remained significant after multivariate analysis. ROC curve analysis revealed an excellent discrimination of the need for surgical treatment as predicted by TOA size, with increased likelihood of surgical or procedural intervention with increasing TOA size. Radiographic size, leukocyte count, age, and parity are associated with operative or procedural treatment of tuboovarian abscess.

**Source:** Medline

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**Title:** Surgical treatment outcomes of serious chronic tubo-ovarian abscess: A single-center series of 20 cases

**Citation:** Clinical and Experimental Obstetrics and Gynecology, 2013, vol./is. 40/3(377-380), 0390-6663 (2013)

**Author(s):** Nakayama K., Ishikawa M., Katagiri H., Katagiri A., Ishibashi T., Iida K., Nakayama N., Miyazaki K.

**Language:** English

**Abstract:** In recent years, Shimane University Hospital has begun to see patients with pelvic inflammatory disease (PID) which has become severe and chronic after insufficient conservative treatment in primary or secondary medical care facilities. Serious chronic tubo-ovarian abscess (TOA) is complicated by intraperitoneal inflammatory adhesions to surrounding organs, so that it is difficult to determine the original anatomical position of organs at surgery. Forcible synechotomy can result in damage to the adhering organs and insufficient drainage after surgery can cause recurrence of inflammation. In order to increase the chances for a successful surgical treatment, careful preparation, such as preoperative administration of antibiotics and ureteral stent insertion are necessary. In addition, the chances for recurrence of inflammation can be lessened by thorough intraperitoneal irrigation and insertion of a drainage tube.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Pathogenesis, diagnosis, and management of severe pelvic inflammatory disease and tuboovarian abscess.



**Citation:** Clinical obstetrics and gynecology, Dec 2012, vol. 55, no. 4, p. 893-903, 1532-5520 (December 2012)

**Author(s):** Chappell, Catherine A, Wiesenfeld, Harold C

**Abstract:** Severe pelvic inflammatory disease and tuboovarian abscesses (TOAs) are common pelvic infections requiring inpatient admission. There are few large randomized trials guiding appropriate clinical management of TOA, including antibiotic selection and timing of surgical management and drainage. The pathogenesis, diagnosis, and management of severe pelvic inflammatory disease and TOA are summarized and reviewed from the most current literature.

**Source:** Medline

**Full Text:**

Available from *Ovid* in [Clinical Obstetrics and Gynecology](#)

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**Title:** The zebra in the closet: A confounding case of the tubo-ovarian abscess that wasn't

**Citation:** International Journal of Gynecology and Obstetrics, October 2012, vol./is. 119/(S501), 0020-7292 (October 2012)

**Author(s):** Thor J., Singh S., Lopez J.

**Language:** English

**Abstract:** Objectives: To report on an interesting case of a 25 year-old woman who was admitted through the emergency room with the presumed diagnosis of tubo-ovarian abscess that during surgery was found to have a ruptured diverticulum. Materials: A chart review of a patient that presented to a county hospital was performed and a case report compiled. Methods: The patient, 25 year-old G1 P0, presented complaining of 6 weeks of sharp intermittent colicky pain in the left lower quadrant and left flank. She had been seen several times at other hospitals and her previous imaging studies revealed a pelvic mass. The patient was diagnosed and treated for a urinary tract infection. When presenting to the ER, a detailed history and physical was obtained. Labs were drawn, a pelvic ultrasound was done, and CT of the abdomen and pelvis were ordered. She was afebrile, but tachycardic with leukocytosis and bandemia. Ultrasound demonstrated a left adnexal mass. She was admitted with the working diagnosis of TOA versus incompletely treated UTI and started on antibiotics. On hospital day 2 the ultrasound reading showed a 7.7cm heterogeneous mass in the left adnexa with no clear etiology. The CT had been performed, but the official reading was pending. On hospital day 3 she developed shoulder pain and a reduction in the size of the pelvic mass was noted. She was taken to OR for presumed diagnosis of ruptured TOA with the CT reading still pending. Results: The case was started laparoscopically, but converted to laparotomy after dense adhesions were noted and purulent material was seen throughout the abdomen. No adnexal abnormalities were noted and intraoperative surgery consult called. The abscess was drained and a hole was noted in the sigmoid colon.

Postoperatively she was left intubated and went back to the OR for an abdominal wash out and closure. Post-operatively she developed fever and was treated. She was finally extubated POD #8, but subsequently developed a pulmonary embolus for which she was placed on coumadin. POD #13 she was discharged home and subsequently developed a wound infection that closed through secondary intention. Conclusions: The final CT reading was suspicious for diverticulitis with perforation and localized abscess. Although only 10% of all those diagnosed with diverticulitis are under 40 years old, the diagnosis could have been made with CT reading prior to surgery. For this reason it was reviewed as a morbidity and mortality.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Streptococcus viridans tubo-ovarian abscess in an adolescent virgin.

**Citation:** Pediatrics international : official journal of the Japan Pediatric Society, Oct 2012, vol. 54, no. 5, p. 706-709, 1442-200X (October 2012)

**Author(s):** Simpson-Camp, Lashondria, Richardson, Elizabeth Jane, Alaish, Samuel M

**Abstract:** A tubo-ovarian abscess (TOA) is a common complication of pelvic inflammatory disease in premenopausal women; however, in virginal females, TOAs are an exceedingly rare occurrence. Within this rare subset of patients, there is almost always an underlying condition, such as vaginal voiding, or a concomitant disease process. A virginal adolescent female with no prior medical history presented with a large pelvic mass which proved to be a TOA. An exploratory laparotomy was eventually required to establish the diagnosis. Open drainage and antibiotic therapy successfully treated the patient. With only the organism, Streptococcus viridians, isolated in her cultures, an etiology of direct ascension from the lower genitourinary tract is implicated. We believe this to be the youngest case of a TOA occurring in a virginal adolescent female without a predisposing condition. A TOA should be considered in the differential diagnosis of pelvic masses in previously healthy pediatric patients regardless of their sexual activity. © 2012 The Authors. Pediatrics International © 2012 Japan Pediatric Society.

**Source:** Medline

**Full Text:**

Available from *John Wiley and Sons* in [Pediatrics International](#)

Available from *John Wiley and Sons* in [Pediatrics International](#)

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**Title:** A review of patients diagnosed with tubo-ovarian abscess (TOA) on ultrasound scan

**Citation:** Gynecological Surgery, September 2012, vol./is. 9/1 SUPPL. 1(S60), 1613-2076 (September 2012)

**Author(s):** Araklitis G., Jan H., Naidu M., Bracewell-Milnes T., Narvekar N.

**Language:** English

**Abstract:** Retrospective observational study reviewing patients diagnosed with tubo-ovarian abscess (TOA) on ultrasound scan  
Introduction: Tubo-ovarian abscess (TOA) develops in 34 % of patients requiring admission for PID (Rizk, 1995)  
Material and Methods: A retrospective review of ultrasound diagnosis of TOA at a tertiary referral center.  
Results: 50 patients with TOA were identified from a review of medical records from 2000 to 2011. Mean age at presentation was 34.8 (SD08.7) years. 89 % presented with abdominal pain, 49 % with fever and 25 % with vaginal discharge. On ultrasound scan, 31 % had right TOA, 46 % had left TOA and 23 % had bilateral TOA. All patients had antimicrobial therapy with 79 % prescribed intravenous antibiotics. 10 out of 50 patients (20 %) had surgical intervention including 3 laparotomy, 2 laparoscopy and 5 ultrasound guided vaginal drainage. Median length of stay was 6 (range1-19) days. 7 patients were readmitted. 2 had previous surgical intervention. All readmissions were managed conservatively with anti-microbial therapy and discharged home after a median of 4 (range 1-14) days of hospital stay.  
Discussion: A diagnosis of TOA should be considered in all women of reproductive age presenting with abdominal pain and fever. Medical management with IV antibiotics is successful in majority of patients and organ-sparing surgical intervention should be considered for all patients with intractable symptoms.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Clinical analysis of laparoscopic surgery of tuboovarian abscess in acute pelvic inflammatory disease

**Citation:** *Gynecological Surgery*, September 2012, vol./is. 9/1 SUPPL. 1(S44-S45), 1613-2076 (September 2012)

**Author(s):** Lee H.

**Language:** English

**Abstract:** To evaluate the clinical characteristics between patients with tuboovarian abscess and those presenting with non- tuboovarian abscess in acute pelvic inflammatory disease according to the operation findings.  
Introduction: Our results suggest that some variables noted between the tuboovarian abscess group and acute pelvic inflammatory disease group.  
Material and Methods: The patients were divided into 2 groups based on the operation findings at laparoscopic surgery.  
Results: There were no significant differences between the two groups considering the percentage of age, parity, mean abortion rate and

rate of the history of previous pelvic inflammatory disease. But there were differences in mean white blood cell count, erythrocyte sedimentation rate and C-reactive protein level. A higher number of patients having intrauterine devices were observed in the tuboovarian abscess group than in the non-tuboovarian abscess group. Also, statistical significance was noted in hospital stay after operation but there was no difference in number of sick days prior to operation. Discussion: These results make easier to calculate diagnostic accuracy of patients prone to developing tuboovarian abscess and prevent subsequent complications from the delay of treatment if sensitivity, specificity, negative and positive predictive values were assessed.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** The use of laparoscopy in an approach to tubo-ovarian abscesses

**Citation:** *Gynecological Surgery*, September 2012, vol./is. 9/1 SUPPL. 1(S41), 1613-2076 (September 2012)

**Author(s):** Shevchenko O.

**Language:** English

**Abstract:** In this study laparoscopic approach to tubo-ovarian abscesses was evaluated. Laparoscopic surgery has significant advantage in terms of preserving hormonal and reproductive function. Introduction: TOA is a severe complication of PID which also can result in pyosalpinx and peritonitis. Findings indicate that TOA develops in up to 30 % of women hospitalized for PID. The approach to TOA is still highly debatable. Material and Methods: There were 96 women with TOA observed. The mean age was 30+/-7,2 years. All patients were operated using laparoscopic access. The mean time of an operation was 49+/-13,5 min. Results: All patients were treated during 48 to 72 hours before operation using broad-spectrum antibiotics, infusion therapy (>2,5 liters per day), anti-inflammatory drugs, vitamin supplement, etc. There was performed lysis of pelvic adhesions, drainage and irrigation of pyosalpinges and TOA with irrigation of the pelvic cavity with 3-4 liters of physiologic saline in all cases. Removing of a unilateral infectious complex and resection of ovary was done for 31 patients. We were focused on saving ovarian tissue as much as possible for infertile and nulliparous women. There was not revealed any complications after using this therapy. Discussion: Laparoscopic surgery which diminishes postoperative complications should be the first choice in the managing of TOA. However it is crucial to provide adequate preoperative treatment and postoperative rehabilitation.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Pregnancies following ultrasound-guided drainage of tubo-ovarian abscess.

**Citation:** *Fertility and sterility*, Jul 2012, vol. 98, no. 1, p. 136-140, 1556-5653 (July 2012)

**Author(s):** Gjelland, Knut, Granberg, Seth, Kiserud, Torvid, Wentzel-Larsen, Tore, Ekerhovd, Erling

**Abstract:** To study fertility among women treated by means of ultrasound-guided drainage and antibiotics for tubo-ovarian abscess (TOA). Retrospective cohort study. A tertiary referral center. One hundred women of reproductive age treated for TOA between June 1986 and July 2003. Transvaginal ultrasound-guided drainage of TOA was performed in all patients. The procedure was repeated if a substantial amount of pus was seen using ultrasonography 2-5 days after the initial aspiration, and repeated later if necessary. Frequency of naturally conceived pregnancies. Twenty of 38 (52.6%; 95% CI 36.5-68.9%) women who intended to have a child achieved pregnancy naturally and became mothers. In addition, 7 (50%) of 14 women who were not on birth control on a regular basis became pregnant. No ectopic pregnancies were registered. Ultrasound-guided drainage of TOA in combination with antibiotics seems to preserve fertility in approximately half of the patients. Copyright © 2012 American Society for Reproductive Medicine. Published by Elsevier Inc. All rights reserved.

**Source:** Medline

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**Title:** Clinical characteristics and treatment outcomes of patients with tubo-ovarian abscess at a tertiary care hospital in Northern Taiwan.

**Citation:** *Journal of microbiology, immunology, and infection = Wei mian yu gan ran za zhi*, Feb 2012, vol. 45, no. 1, p. 58-64, 1995-9133 (February 2012)

**Author(s):** Kuo, Chien-Feng, Tsai, Shin-Yi, Liu, Te-Chu, Lin, Cheng-Chih, Liu, Chang-Pan, Lee, Chun-Ming

**Abstract:** Controversy exists regarding the need for surgical intervention in patients with tubo-ovarian abscess (TOA). This study was aimed at investigating the clinical characteristics and treatment outcomes in patients with TOA at a tertiary care hospital in Taiwan. The medical records of 83 patients who presented at the hospital with TOA between January 1, 2006, and December 31, 2007, were retrospectively reviewed. Outcomes of patients who received medical treatment alone or underwent surgical intervention were analyzed using univariate and logistic regression analyses. Among the 83 patients with TOA, 13 patients (15.7%) underwent surgical intervention, and 70 patients (84.3%) received medical

treatment alone. Significant variables related to surgical treatment in the univariate analysis were length of stay (short vs. long;  $t = -2.267$ ,  $p = 0.026$ ), department of admission (emergency room vs. outpatient department;  $\chi^2 = 7.459$ ,  $p = 0.006$ ), number of live births (nulliparous vs. multiparous;  $\chi^2 = 18.202$ ,  $p = 0.001$ ), and C-reactive protein (CRP) level (high vs. low;  $t = -2.250$ ,  $p = 0.028$ ). Logistic regression analysis performed to determine influential factors for surgical treatment showed that the operation odds ratio of three to four live births versus no live births was 33.995 ( $p = 0.043$ ) and that of two live births versus no live births was 13.598 ( $p = 0.026$ ). Patients with TOA who underwent surgery had a longer duration of hospitalization. Among the patients who underwent surgical intervention, those admitted to the emergency room had higher CRP levels and were more likely to be multiparous. Copyright © 2011. Published by Elsevier B.V.

**Source:** Medline

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**Title:** Post-partum, post-sterilization tubo-ovarian abscess caused by *Fusobacterium necrophorum*: A case report

**Citation:** Journal of Medical Case Reports, 2012, vol./is. 6/(no pagination), 1752-1947 (2012)

**Author(s):** Chayachinda C., Leelaporn A., Ruangvutilert P., Thamkhantho M.

**Language:** English

**Abstract:** Introduction. Post-partum, post-sterilization tubo-ovarian abscess is a rare event. *Fusobacterium necrophorum* subspecies *funduliforme*, a normal flora found mainly in the oral cavity, appears to be the etiologic organism. Case presentation. In this case report, a 25-year-old Thai woman had a post-partum, post-sterilization tubo-ovarian abscess caused by the strictly anaerobic bacterium, *Fusobacterium necrophorum* subspecies *funduliforme*. Progressively severe symptoms started 3 weeks after her third vaginal delivery with a tubal sterilization on the following day. On admission, she presented with peritonitis and impending shock. An exploratory laparotomy showed a ruptured left tubo-ovarian abscess. A segment of her ileum had to be resected because of severe inflammation. Conclusions: *Fusobacterium necrophorum* subspecies *funduliforme* can be an etiologic organism of a ruptured tubo-ovarian abscess following tubal sterilization in a healthy host. © 2012 Chayachinda et al.; licensee BioMed Central Ltd.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *BioMed Central* in [Journal of Medical Case Reports](#)

Available from *National Library of Medicine* in [Journal of Medical Case Reports](#)

Available from *National Library of Medicine* in [Journal of Medical Case Reports](#)

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**Title:** Hydronephrosis and loin pain as a presentation of tubo-ovarian abscess developing after Mirena coil removal.

**Citation:** BMJ case reports, Jan 2012, vol. 2012, 1757-790X (2012)

**Author(s):** Christodoulidou, Michelle, Thomas, Mathew, Sharma, Sanjeev D

**Abstract:** We present an unusual and complicated case of a 39-year-old woman who was admitted three times in hospital over a period of 4&emsp14;weeks, with abdominal pain initially and then right loin pain, fever and feeling generally unwell. She was investigated on each admission with different diagnoses set each time, but only on her last admission due to persisting symptoms, an MRI scan revealed a tubo-ovarian abscess associated with pelvic inflammatory disease (PID). We believe that the PID had developed secondary to the intrauterine device and a few weeks after the removal of the Mirena coil she was diagnosed with a tubo-ovarian abscess. As the case unfolds, we will introduce the possible diagnoses and causes that were likely to have led to the development of the abscess.

**Source:** Medline

**Full Text:**

Available from *Highwire Press* in [BMJ Case Reports](#)

Available from *National Library of Medicine* in [BMJ Case Reports](#)

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**Title:** Tuboovarian Abscess due to Colonic Diverticulitis in a Virgin Patient with Morbid Obesity: A Case Report.

**Citation:** Case reports in medicine, Jan 2012, vol. 2012, p. 413185., 1687-9635 (2012)

**Author(s):** Tuncer, Zafer Selçuk, Boyraz, Gokhan, Yücel, Senem Özge, Selçuk, Ilker, Yazicioğlu, Aslıhan

**Abstract:** Since tuboovarian abscess is almost always a complication of pelvic inflammatory disease, it is rarely observed in virgins. A 30-year-old virgin patient presented with pelvic pain, fever, and vaginal spotting for the previous three weeks. Her abdominopelvic computed tomography scan revealed bilateral multiseptated cystic masses with prominent air-fluid levels suggesting tuboovarian abscesses. The sigmoid colon was lying between two tuboovarian masses, and its borders could not be distinguished from the ovaries. The patient was presumed to have bilateral tuboovarian abscesses which developed as a complication of the sigmoid diverticulitis. She was administered intravenous antibiotic therapy followed by percutaneous drainage under ultrasonographic guidance. She was discharged on the twenty second day with prominent clinical and radiological improvement. Diverticulitis may be a reason for development of tuboovarian abscess in a virgin patient. Early recognition of the condition with percutaneous drainage in addition to antibiotic therapy helps to have an uncomplicated recovery.

**Source:** Medline

**Full Text:**

Available from *National Library of Medicine* in [Case Reports in Medicine](#)  
Available from *National Library of Medicine* in [Case Reports in Medicine](#)

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**Title:** Tubo-ovarian abscess presenting as an ovarian tumor in a virginal adolescent: a case report.

**Citation:** Clinical and experimental obstetrics & gynecology, Jan 2012, vol. 39, no. 3, p. 388-389, 0390-6663 (2012)

**Author(s):** Sakar, M N, Gul, T, Atay, A E

**Abstract:** Tubo-ovarian abscess (TOA), a serious complication of pelvic inflammatory disease, unites the fallopian tube and ovary and, is rarely observed in sexually inactive adolescent girls. A pelvic mass, supposedly originating from the ovary, was detected in a 13-year-old sexually inactive girl suffering from abdominal pain and menstrual disorder. Pelvic ultrasonography pointed out a semisolid, hyperechogenic mass of 57x73 mm in the left adnexal area. Laparotomy revealed an unilateral TOA adhering to the bowel and omentum. Abscess drainage and adhesiolysis were performed and postoperative antibiotherapy was administered. TOA should be considered in the differential diagnosis of females with abdominal pain and adnexal mass whether sexual activity is present or not.

**Source:** Medline

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**Title:** Persistent ischiorectal fistula with supralelevator origin secondary to a chronic tubo-ovarian abscess: report of a case and review of the literature

**Citation:** Female pelvic medicine & reconstructive surgery, January 2012, vol./is. 18/1(66-67), 2151-8378 (2012 Jan-Feb)

**Author(s):** Belli E.V., Landmann R.G., Koonce S.L., Chen A.H., Metzger P.P.

**Language:** English

**Abstract:** Chronic tubo-ovarian abscess is an uncommon finding in postmenopausal women. This abscess may rupture or fistulize to adjacent organs into the ischiorectal space. A gravida three, para three, postmenopausal woman with extensive sigmoid diverticulosis presented with perianal fistula of 2 years' duration. Magnetic resonance imaging showed the tract to have a supralelevator origin adjacent to the sigmoid colon. She had no recent instrumentation other than preoperative colonoscopy. Intraoperatively, the fistula tract origin was noted to be from a right tubo-ovarian abscess. She was treated with right salpingo-oophorectomy and tract excision/sealing. At 4-month follow-up, the fistula tract was healed with no further drainage. Tubo-ovarian abscess should be considered in the differential diagnosis of supralelevator fistula in postmenopausal women when no other source can be localized.

**Publication Type:** Journal: Review



**Source:** EMBASE

**Full Text:**

Available from *Ovid* in [Female Pelvic Medicine and Reconstructive Surgery](#)

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**Title:** Tubo-ovarian abscess: Risk factors for failed response to conservative treatment [English;Turkish] Tubo-ovaryan abse: Konservatif tedavi basarizligndaki risk faktorleri

**Citation:** Turk Jinekoloji ve Obstetrik Dernegi Dergisi, 2012, vol./is. 9/2(106-109), 1305-4252 (2012)

**Author(s):** Kuru O., Sen S., Saygili H., Berkman S.

**Language:** English, Turkish

**Abstract:** Objectives: To define the epidemiologic, clinical and laboratory risk factors associated with failed response to conservative antibiotic therapy in tubo-ovarian abscess (TOA). Material and methods: The charts of 108 patients, admitted with clinically and sonographically diagnosed TOA between 1988 and 2010 were reviewed. On admission, all patients were treated with broad-spectrum antibiotics, and were divided into two groups according to the response to medical treatment. 47 patients, responding to antibiotic therapy, constituted group A, whereas 61 patients who did not respond and were further treated by surgery, were included in group B. The groups were compared with respect to patient characteristics, clinical and sonographic presentation, laboratory findings. Results: There was no statistical difference between the mean age of patients (38+/-2,8) responding to medical therapy (group A) and the age of patients who did not respond (group B) (38+/-3,4)(p>0,05). The gravidity, parity, use of intrauterin device (IUD) and history of tubal ligation were similar between the groups (p>0,05). The size and bilaterality of TOA, evaluated sonographically were significantly increased in group B compared with group A (p=0,008 and p=0,002, respectively). On admission, fever >38,0degreeC was determined in %32 of group B and %8 of group A (p=0,003.) The only laboratory finding differentiating between two groups was C-reactive protein (CRP), being significantly higher in group B (p=0,03). The duration of hospitalization was significantly shorter in group A (8,21 +/-1,9)(p<0,05). %85 of patients in group A were treated with Clindamycin+ Gentamycin +/- (Amoxicillin+Clavulonic acid) regimen (p=0,0043). Conclusion: In the presence of certain risk factors, if conservative treatment fails in TOA; additional interventions (surgery, drainage) may be necessary.

**Publication Type:** Journal: Review

**Source:** EMBASE

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**Title:** Tubo-ovarian abscess: The treatment by interventional radiology and laparoscopy related to abscess size

**Citation:** Turkiye Klinikleri Jinekoloji Obstetrik, 2012, vol./is. 22/3(166-170), 1300-0306 (2012)

**Author(s):** Ekin M., Yasar L., Islim F., Ozdemir I.A.

**Language:** English

**Abstract:** Objective: To determine the feasibility of the treatment of tubo-ovarian abscess by interventional radiology and laparoscopy related to abscess size. Material and Methods: We collected data from 43 patients admitted with the diagnosis of tubo-ovarian abscess from January 1, 2008 to January 1, 2011. Three abscess groups were created according to size as Group I: <4 cm (n=12), Group II 5-8 cm (n=23) and Group III: >8 cm (n=8). Symptoms and signs on admission, findings of laboratory testing and diagnosing imaging, treatment modalities and the duration of the hospitalization were recorded. The feasibility of the interventional radiology and the laparoscopy and conversion to laparotomy in the treatment groups were analysed. Results: Four of the patients were treated only by antibiotics and anti-inflammatory agents. Two of the patients in group I, five of the patients in group II and four of the patients in group III were managed by transvaginal or transabdominal catheter drainage under the guidance of ultrasonography or tomography respectively. Four of the patients in group I and seven of the patients in group II were treated with laparoscopy. Laparoscopy was failed in 6 out of 17 patients whom were converted to laparotomy. The only reported complication was a bowel injury in one of the cases at laparotomy. Conclusion: Treatment of tubo-ovarian abscess by drainage under the guidance of interventional radiology should be encouraged. Laparoscopy may be a surgical management option in experienced clinics in patients with abscess size <8 cm. Copyright &#xa9; 2012 by Turkiye Klinikleri.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Differentiation between right tubo-ovarian abscess and appendicitis using CT--a diagnostic challenge.

**Citation:** Clinical radiology, Nov 2011, vol. 66, no. 11, p. 1030-1035, 1365-229X (November 2011)

**Author(s):** Eshed, I, Halshtok, O, Erlich, Z, Mashiach, R, Hertz, M, Amitai, M M, Portnoy, O, Guranda, L, Hiller, N, Apter, S

**Abstract:** To determine CT features that can potentially differentiate right tubo-ovarian abscess (TOA) from acute appendicitis (AA; including abscess formation). The abdominal computed tomography (CT) images of 48 patients with right-sided TOA (average age  $39.3 \pm 9.8$  years) and 80 patients (average age  $53.5 \pm 19.9$  years) with AA (24 with peri-appendicular abscess) were retrospectively evaluated. Two experienced radiologists evaluated 12 CT signs (including enlarged, thickened wall ovary, appendix diameter and wall

thickness, peri-appendicular fluid collection, adjacent bowel wall thickening, fat stranding, free fluid, and extraluminal gas) in consensus to categorize the studies as either TOA or AA. The diagnosis and the frequency of each of the signs were correlated with the surgical and clinical outcome. Reviewers classified 92% cases correctly (TOA=85%, AA=96.3%), 3% incorrectly (TOA=6.3%, AA=1.3%); 5% were equivocal (TOA=8.3%, AA=2.5%). In the peri-appendicular abscess group reviewers were correct in 100%. Frequent findings in the TOA group were an abnormal ovary (87.5%), peri-ovarian fat stranding (58.3%), and recto-sigmoid wall thickening (37.5%). An abnormal appendix was observed in 2% of TOA patients. Frequent findings in the AA group were a thickened wall (32.5%) and distended (80%) appendix. Recto-sigmoid wall thickening was less frequent in AA (12.5%). The appendix was not identified in 45.8% of the TOA patients compared to 15% AA. In the presence of a right lower quadrant inflammatory mass, peri-ovarian fat stranding, thickened recto-sigmoid wall, and a normal appearing caecum, in young patients favour the diagnosis of TOA. An unidentified appendix does not contribute to the differentiation between TOA and peri-appendicular abscess. Copyright © 2011 The Royal College of Radiologists. Published by Elsevier Ltd. All rights reserved.

**Source:** Medline

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**Title:** Noninfectious cause of recurrent tubo-ovarian abscesses in a young female

**Citation:** Chest, October 2011, vol./is. 140/4 MEETING ABSTRACT(no pagination), 0012-3692 (October 2011)

**Author(s):** Kakazu M.T., Sahni A., Patel A., Stroger J.H.

**Language:** English

**Abstract:** INTRODUCTION: Sarcoidosis is characterized by multiorgan involvement of granulomatous inflammation. It rarely affects female genital tract and even rarer to cause fistulizing disease. Majority of cases of female genital tract sarcoidosis have been seen in uterus with sporadic cases involving ovaries, fallopian tubes, cervix and vagina. CASE PRESENTATION: A 30 year old African American woman with no past medical history presented to our hospital with lower abdominal pain of few months duration. She was diagnosed with fibroids and underwent myomectomy. The pathology revealed areas of hyalinization with foci of necrosis. Her abdominal symptoms persisted and she got readmitted to the hospital. She was started on antibiotics with presumed diagnosis of pelvic inflammatory disease (PID). CT abdomen and chest done at that time showed hilar, bilateral axillary and retroperitoneal lymphadenopathy. Cervical lymph node biopsy was done which revealed well formed granulomas with negative GMS and AFB stains. She was diagnosed with pulmonary sarcoidosis and was started on low dose of steroids. Her abdominal symptoms resolved simultaneously. On tapering her steroids she started to experience recurrent episodes of pelvic pain. On examination she had cervical motion tenderness. CT scan pelvis revealed free fluid in cul-de-sac with multiseptated left ovarian mass. She was treated for PID with antibiotics without much relief. Blood, urine, and cervical cultures also came back negative. She continued with symptoms and soon underwent exploratory

laparotomy with left salpingoophorectomy. The pathology reported granulomatous salpingitis with granulomatous oophoritis. A biopsy taken from pelvic wall bowel nodule revealed nodular fibrous and fibrovascular tissue with granulomatous inflammation along with vegetable material in the sample which raised concerns of gastrointestinal perforation. She underwent colonoscopy, small bowel series and lower GI studies which failed to reveal any abnormalities. Soon after her discharge from the hospital she again developed abdominal pain and was found to have right sided tubo-ovarian abscess. She underwent repeat exploratory laparotomy with total hysterectomy and right salpingoophorectomy. The biopsy was consistent with generalized granulomatous disease in the ovary, fallopian tube and the uterus with negative microbiology. Her post operative course got complicated by enterocutaneous fistula followed by enterovaginal fistula. Repeat colonoscopy ruled out any pathological evidence of Inflammatory Bowel Disease. Patient was started on high dose steroids. Patient's stool output from the fistula decreased markedly over a span of one week on treatment suggesting sarcoidosis as the culprit of the fistulas. **DISCUSSION:** Sarcoidosis also called Boeck's disease was first identified over 100 years ago in Norway. It is very crucial that before the patient is diagnosed with genital tract sarcoidosis more obscure causes of the granulomatous inflammation are ruled out including coccidiomycosis, lymphogranuloma inguinale, foreign body reaction, tuberculosis and leprosy. Thus microbiological proof is vital to differentiate sarcoidosis from other forms of granulomatous inflammation. Here we present a unique case of sarcoidosis which fulfills the criteria of diagnosis of on the basis of histopathology and clinical response of the patient to the anti-sarcoid chemotherapy. The fistulizing form of sarcoidosis in the female genital tract has not been reported yet. There has been one case report of anal fistula due to sarcoidosis. The fistulizing form also responds adequately to steroids as noted in our case, therefore adequate time should be taken before decision to reoperate the patient is made. **CONCLUSIONS:** Non- infectious cases for recurrent tubo-ovarian abscesses should be kept in mind. Sarcoid although rare in the female genital tract can present with features of pelvic inflammatory disease. Fistulizing disease has not been clearly reported in association to sarcoidosis. We report a unique case of female genital tract sarcoidosis with extensive involvement of ovaries, fallopian tubes and uterus, later complicating with fistulas which showed excellent response to steroids.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *Free Access Content* in [Chest](#)

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**Title:** Laparoscopic management of tubo-ovarian abscesses

**Citation:** Gynecological Surgery, September 2011, vol./is. 8/(S107), 1613-2076 (September 2011)

**Author(s):** Shevchenko O.

**Language:** English

**Abstract:** In this study laparoscopic management of tubo-ovarian abscesses was evaluated. Laparoscopic surgery has significant advantage in terms of preserving hormonal and reproductive function. Tubo-ovarian abscess and complex is acute complication of PID which also can result in pyosalpinx and peritonitis. Findings indicate that TOA develops in up to 32% of women hospitalized for PID. The approach to TOA is still a highly disputable issue. There were 56 women with TOA observed. The mean age was 32+/- 7,2 years. All patients were operated using laparoscopic access. The mean time of an operation was 58+/-12,5 min. All patients were treated during 48 to 72 hours before operation using broad-spectrum antibiotics, infusion therapy (>2 liters per day), anti-inflammatory drugs. There was performed lysis of pelvic adhesions, drainage and irrigation of pyosalpinges and TOA with irrigation of the pelvic cavity with 2 liters of physiologic saline in all cases. Extirpation of a unilateral infectious complex and resection of ovary was done for 19 patients. We aimed to save ovarian tissue as much as possible for infertile and nulliparous women. There was not revealed any complications after using this strategy. Laparoscopic surgery which diminishes postoperative complications should be the first choice in the managing of TOA. However, it is crucial to provide adequate preoperative treatment.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Image-guided drainage of tuboovarian abscesses of gastrointestinal or genitourinary origin: A retrospective analysis

**Citation:** Journal of Vascular and Interventional Radiology, May 2011, vol./is. 22/5(678-686), 1051-0443 (May 2011)

**Author(s):** Levenson R.B., Pearson K.M., Saokar A., Lee S.I., Mueller P.R., Hahn P.F.

**Language:** English

**Abstract:** Purpose: To analyze the authors' success with image-guided drainage of tuboovarian abscesses (TOAs). Materials and Methods: Retrospective analysis of patients with image-guided TOA drainage from 1999 to 2008 was performed. Patient recovery without salpingo-oophorectomy was considered clinical success. A total of 57 TOAs were drained in 49 female patients (mean age, 43; range, 12 to > 89). Results: Thirty-three (58%) TOAs were drained percutaneously using computed tomography guidance and 24 were ultrasound guided (21 transvaginally, three transabdominally). Fifty-three TOAs were drained with catheter placement, and four were drained with aspiration alone. Abscess etiologies include pelvic inflammatory disease (n = 21, 37%), gastrointestinal conditions related (n = 21, 37%), gynecologic surgery (n = 8, 14%), and other (12%). Image-guided drainage resolved TOAs without salpingo-oophorectomy in 74% of cases overall (42 of 57) and 88% (29 of 33) of gynecologic-related cases, including 95% (20 of 21) of pelvic

inflammatory disease cases. Salpingo-oophorectomy was performed more often in gastrointestinal-related cases (10 of 21, 48%) than for all other causes (five of 36, 14%;  $P < .001$ ), with concurrent bowel surgery performed in the majority of the gastrointestinal-related cases. Mean follow-up after image-guided drainage was 48 months (range, 1113) in patients who did not have related surgery. In patients who underwent salpingo-oophorectomy, it was performed on average 2.2 months (range, 0.55) after initial drainage. Two minor complications occurred; both involved catheter transgression of the urinary bladder in patients with transvaginal ultrasound-guided drainages. The patients were successfully treated conservatively with Foley catheter bladder decompression, without prolonged hospitalization. Conclusions: TOAs, especially of gynecologic origin, can often be managed successfully with image-guided drainage. After image-guided drainage, patients with gynecologic-related TOA were less likely to undergo salpingo-oophorectomy than patients with gastrointestinal-related TOAs. &#xa9; 2011 SIR.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Group A streptococcal peritonitis and ruptured tubo-ovarian abscess three years after Essure® insertion: a case report.

**Citation:** Journal of women's health (2002), May 2011, vol. 20, no. 5, p. 781-783, 1931-843X (May 2011)

**Author(s):** Solt, Ido, Ioffe, Yevgeniya, Elmore, Raymond Geoffrey, Solnik, M Jonathon

**Abstract:** We describe a complicated ruptured *Streptococcus pyogenes* tubo-ovarian abscess (TOA) and peritonitis in a 24-year-old woman, necessitating eventual hysterectomy and a prolonged intensive care unit (ICU) admission 3 years after successful tubal occlusion with Essure® (Conceptus, Inc., Mountain View, CA) microinsert devices. The patient is a 24-year-old gravida 3, para 2, aborta 1 (G3P2Ab1) who had a 1-day history of worsening right lower quadrant pain without associated fever or cervical motion tenderness. Patient's medical history was complicated by mitochondrial neurogastrointestinal encephalopathy (MNGIE). Upon her admission to the hospital, an exploratory laparoscopy was performed. Intraoperative findings revealed a ruptured right-sided TOA. *S. pyogenes* was isolated from the peritoneal fluid and cervicovaginal cultures. After the laparoscopy, the patient experienced initial improvement but abruptly worsened and on postoperative day 7 was returned to the operating room for a planned repeat exploration and total abdominal hysterectomy. Gross pathological examination of the uterus showed appropriate Essure insert placement. Based on this case, tubal occlusion by induced fibrosis may not be a sufficient obstacle in preventing ascending pelvic infections.

**Source:** Medline

**Full Text:**

Available from *EBSCOhost* in [Journal of Women's Health \(15409996\)](#)

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**Title:** Sensitivity of ultrasound for the diagnosis of tubo-ovarian abscess: a case report and literature review.

**Citation:** The Journal of emergency medicine, Feb 2011, vol. 40, no. 2, p. 170-175, 0736-4679 (February 2011)

**Author(s):** Lee, David C, Swaminathan, Anand K

**Abstract:** Tubo-ovarian abscess is a serious complication of pelvic inflammatory disease, with a high associated morbidity. Although tubo-ovarian abscess is not a rare entity, its diagnosis presents multiple challenges. Prior literature has suggested that pelvic ultrasound is now the "gold standard" in the diagnosis of tubo-ovarian abscess. Given the increasing use of ultrasound in the emergency department, it is important to understand the diagnostic value of transvaginal ultrasound in ruling in and ruling out important gynecologic emergencies. Our objective is to review the literature to evaluate the sensitivity and specificity of ultrasound in the diagnosis of tubo-ovarian abscess. We review a case of a 31-year-old woman with frank peritonitis caused by a tubo-ovarian abscess diagnosed by contrast-enhanced computed tomography after an initial negative transvaginal ultrasound. We found evidence for lower sensitivity and specificity of ultrasound for the diagnosis of tubo-ovarian abscess than generally reported in the emergency medicine literature. Copyright © 2011 Elsevier Inc. All rights reserved.

**Source:** Medline

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**Title:** Treatment approaches in tubo-ovarian abscesses according to scoring system

**Citation:** Bratislava Medical Journal, 2011, vol./is. 112/4(200-203), 0006-9248;1336-0345 (2011)

**Author(s):** Doganay M., Iskender C., Kilic S., Karayalcin R., Moralioglu O., Kaymak O., Mollamahmutoglu L.

**Language:** English

**Abstract:** Background: The aim of this study was to define treatment modalities in tubo-ovarian abscesses (TOA) using a scoring system. As there is no scoring system for TAO there is still a controversy on the management. In our opinion, as there is no evidence based TAO management strategy, a scoring system is needed in the management of these patients. For this purpose we prospectively tried to define that may be useful for favoring a treatment modality and the effects of the parameters on the outcome. Methods: The study group comprised of hundred and eighty-four patients hospitalized between May 2001 and June 2008. Patients were divided in three groups according to the treatment modality- laparotomy (group 1, n: 122), medical treatment, (group 2, n: 34), and laparoscopic surgery (group 3, n: 28). Antibiotic regimens or other means of treatment strategies were directed according to our scoring system. Results: Of the patients, 122 underwent laparotomy, 34

received medical treatment and 28 had operative laparoscopy. Intraoperative complications in the group of 122 patients who underwent laparotomy were bowel injury in 8 patients (6.5 %) and ureteral injury in six (4.9 %). Fourteen patients (11.4 %) in the laparotomy group suffered from morbidity related to abdominal incision. In the laparoscopy group two patients (7.1 %) had bowel injury. Conclusion: With this study, we propose a scoring system in TOA cases and define treatment strategies accordingly. According to the results of our study, laparoscopy serves the best treatment option. Medical treatment, despite longer follow up, may be suitable in well-selected cases.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Tubo-ovarian abscess in a virgin girl.

**Citation:** Iranian journal of reproductive medicine, Jan 2011, vol. 9, no. 3, p. 247-250, 1680-6433 (2011)

**Author(s):** Ashrafganjooei, Tahere, Harirchi, Iraj, Iravanlo, Giti

**Abstract:** Tubo-ovarian abscess as a serious complication of pelvic inflammatory disease is very uncommon in sexually inactive girls. We report a case of tubo-ovarian abscess in a 24-year-old sexually inactive girl with transverse vaginal septum who was presented with abdominal pain and a pelvic mass and without prior surgical history and no evidences of appendicitis, inflammatory bowel disease, or cancer. A huge unilateral tubo-ovarian abscess was recognized at laparotomy. Unilateral salpingoophorectomy, hysterectomy and postoperative antibiotic therapy cured the patient. Early diagnosis and treatment are essential to prevent further sequel including infertility, ectopic pregnancy, and chronic pelvic pain which cause morbidity.

**Source:** Medline

**Full Text:**

Available from *Free Access Content* in [Iranian Journal of Reproductive Medicine](#)

Available from *National Library of Medicine* in [Iranian Journal of Reproductive Medicine](#)

Available from *ProQuest* in [Iranian Journal of Reproductive Medicine](#)

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**Title:** Tubo-ovarian abscess during therapy of chronic hepatitis C with pegylated interferon and ribavirin.

**Citation:** Neuro endocrinology letters, Jan 2011, vol. 32, no. 1, p. 1-3, 0172-780X (2011)

**Author(s):** Inglot, Malgorzata, Szymczak, Aleksandra, Fleischer-Stepniewska, Katarzyna, Fleischer, Malgorzata, Staszek-Zurowska, Bogumila, Gladysz, Andrzej



**Abstract:** Serious infections are rare complications of standard treatment in chronic hepatitis C with pegylated interferon alpha (Peg IFN) and ribavirin. We report two cases of life-threatening tubo-ovarian abscess (TOA) in women older than 40 year of age. No casual risk factors of TOA could be identified in them. In one case septic shock and acute renal failure occurred. TOA was caused by endogenic bacteria (*Porphyromonas asaccharolytica* in the first case and *Streptococcus intermedius* in the latter). Surgical treatment and interruption of IFN therapy was necessary in both cases. Serious gynecological infections may have the significant negative influence on chronic hepatitis C therapy outcome. Because of the risk of TOA developing during IFN therapy gynecological care is needed in chronic hepatitis C management.

**Source:** Medline

**Full Text:**

Available from *Free Access Content* in [Neuroendocrinology Letters](#)

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**Title:** Conservative surgical management of tubal and tuboovarian abscesses

**Citation:** Gynecological Surgery, October 2010, vol./is. 7/(S170), 1613-2076 (October 2010)

**Author(s):** Manalich L., Bradbury M., Suarez E., Guerra T., Puig O., Xercavins J.

**Language:** English

**Abstract:** Introduction: Tuboovarian abscesses are most often a consequence of pelvic inflammatory disease and they are considered an important problem in reproductive medicine. For this reason, the objective of our study is to evaluate clinical and surgical outcomes depending on the surgical technique. Material & methods: A retrospective descriptive study (January 2000-December 2009) was performed by a review of 195 cases of severe pelvic inflammatory disease (stages III and IV), 106 of them treated surgically (71 by laparoscopic approach, 34 by open surgery and 1 by vaginal approach). The rate of intra and postoperative complications, the need of reoperation and the median postoperative hospital stay were evaluated considering the surgical technique (conservative, by means of drainage and debridement of the abscess versus radical, including the excision of the fallopian tube, ovary, adnex and/or the uterus). Results: 32.2% of cases were performed by conservative surgery versus 68.7% of cases which were performed by excisional surgery. Considering the approach way, significant differences were found on the surgical technique (laparoscopy-39.7% conservative versus laparotomy- 18.8% conservative; p=0,042). There were not statistically significant differences in the rate of operative complications, the need of reoperation and the median postoperative hospital stay depending on the surgical management. Discussion: Considering our results and the fact that pelvic inflammatory disease affects reproductive-aged women, the conservative management for surgical treatment of the tuboovarian abscess is better than excisional surgery to try to preserve the fertility and the hormonal function.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Tubo-ovarian abscess following Essure sterilization

**Citation:** *Gynecological Surgery*, October 2010, vol./is. 7/(S143), 1613-2076 (October 2010)

**Author(s):** Barros L., Gouveia R., Sousa F.

**Language:** English

**Abstract:** Female surgical sterilization is one of the most frequent method of contraception among women. Since the introduction of Essure Permanent Birth Control System, the transcervical route has become increasingly popular due to the ease of performance of a less invasive procedure, with minimal anesthesia and decreased complication rate. We report a case of a patient with tubo-ovarian abscess (TOA) 3 months after the insertion of the Essure device. It was a 34 year old patient, G2P2, with no relevant past history, admitted in our department for permanent contraception. Placement of the microinserts was satisfactory, in an ambulatory setting, under no anesthesia and the patient remained on alternative contraception until an abdominal X-ray was performed 3 months after the procedure that confirmed the proper location of the devices. One week after the confirmation test she was observed in the emergency department with severe lower abdominal tenderness and a large palpable mass. Additional tests revealed: leucocytosis, elevated C-reactive protein (40 mg/ dl) and a complex mass, with 10 cm, involving both adnexae in the transvaginal sonography. She was hospitalized, initiated intravenous antibiotics and on the 5th day of treatment she was submitted to a laparoscopy and drainage of the abscess. She improved gradually and discharged home 5 days after surgery on oral metronidazol. Despite the gap time between the microinserts placement and the diagnosis of the TOA, this complication may be assigned to the Essure system since this patient presented no other risk factors for pelvic inflammatory disease and there is a wide variation in the clinical presentation of this entity.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

**Full Text:**

Available from *ProQuest* in [Gynecological Surgery](#)

Available from *Springer Link Journals* in [Gynecological Surgery](#)

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**Title:** Tuboovarian abscesses: is size associated with duration of hospitalization & complications?

**Citation:** Obstetrics and gynecology international, Jan 2010, vol. 2010, p. 847041., 1687-9597 (2010)

**Author(s):** Dewitt, Jason, Reining, Angela, Allsworth, Jenifer E, Peipert, Jeffrey F

**Abstract:** Objective. To evaluate the association between abscess size and duration of hospitalization and need for surgical intervention. Methods. We collected data from patients admitted with ICD-9 codes 614.9 (PID) and 614.2 (TOA) from January 1, 1999-December 31, 2005. We abstracted data regarding demographics, diagnostic testing/laboratory testing, imaging, treatment, and clinical course. Two abscess groups were created:  $\leq 8$  cm or  $>8$  cm. Descriptive statistics were calculated, and duration of hospitalization and surgical intervention for women with large abscesses were compared to women with smaller collections. Results. Of the 373 charts reviewed, 135 had a TOA and 31% required management with drainage and/or surgery. The average abscess size for those treated successfully with conservative management was 6.3 cm versus those requiring drainage and/or surgery (7.7 cm,  $P = .02$ ). Every 1 cm increase in abscess size as associated with an increase in hospitalization by 0.4 days ( $P = .001$ ). Abscesses greater than 8 cm were associated with an increased risk of complications ( $P < .01$ ). Conclusions. Larger tubo-ovarian abscesses are associated with an increased duration of hospitalization and more complications including an increased need for drainage or surgery. Additional research to determine the most efficacious antibiotic regimen management strategy is needed.

**Source:** Medline

**Full Text:**

Available from *National Library of Medicine* in [Obstetrics and Gynecology International](#)  
Available from *National Library of Medicine* in [Obstetrics and Gynecology International](#)

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**Title:** Tubo-ovarian abscess management options for women who desire fertility.

**Citation:** Obstetrical & gynecological survey, Oct 2009, vol. 64, no. 10, p. 681-689, 1533-9866 (October 2009)

**Author(s):** Rosen, Mitchell, Breitkopf, Dan, Waud, Kay

**Abstract:** Tubo-ovarian abscess (TOA), a serious sequela of pelvic inflammatory disease, occurs usually in women of ages 20 to 40. Up to 59% of these women are nulliparous. Traditionally, pregnancy rates after TOA are estimated to be 15% or less. Current proposed management algorithms for TOA do not include a separate pathway for women of reproductive age who may desire future pregnancies. A MEDLINE search and extensive review of published literature was undertaken to study management options for patients with TOA, and to compare rates of responders, pregnancies and complications associated with each management option. If intra-abdominal rupture is suspected, and patients are treated with fertility-preserving, conservative surgery, reported pregnancy rate is 25%. If no rupture is suspected and patients are treated with medical management alone, reported pregnancy rates vary between 4% and 15%. If no rupture is suspected, and the treatment is medical management with immediate laparoscopic drainage within 24 hours, reported

pregnancy rates vary between 32% and 63%. Laparoscopy should be considered to all patients with TOA who desire future conception. Overall, the advantages of immediate laparoscopy allow for an accurate diagnosis, effective treatment under magnification with minimal complications, possibly faster response rates with shorter hospitalization times and decreased infertility.

**Source:** Medline

**Full Text:**

Available from *Ovid* in [Obstetrical & gynecological survey.](#)

Available from *Ovid* in [Obstetrical and Gynecological Survey](#)

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**Title:** Surgical treatment outcomes of tubal and tuboovarian abscesses

**Citation:** International Journal of Gynecology and Obstetrics, October 2009, vol./is. 107/(S552), 0020-7292 (October 2009)

**Author(s):** Manalich L., Guerra T., Suarez E., Gracia M., Vila E., Centeno C., Xercavins J.

**Language:** English

**Abstract:** Objectives: To evaluate the impact of the laparoscopic approach in the surgical treatment of tubal and tuboovarian abscesses in our University Hospital, as well as the postoperative results depending on the indication of surgery from the diagnosis of disease. Materials and Methods: A retrospective descriptive study (January 2000 - December 2008) was performed by a review of 176 cases of severe pelvic inflammatory disease (stages III and IV), 97 of them treated surgically. The surgical approach was evaluated in this period of time; as well as, the median postoperative hospital stay, the rate of intra and postoperative complications and the need of reoperation considering the surgical approach (laparoscopy or laparotomy). On the other hand, these same three items were analysed depending when surgery was performed; in the first 48 hours from the diagnosis or after this period. Results: Of the 97 cases operated, 25 were performed by laparotomic approach (25.8%), 1 by vaginal approach (1%) and 71 by laparoscopic approach (73.2%); from these 71 cases 9 were converted to laparotomy (12.7%). An increasing use of the laparoscopic approach was observed in the reviewed period; however, comparing year by year, differences were not statistically significant. Considering the approach way, significant differences were found on the median postoperative hospital stay (laparoscopy = 7.87 days, laparotomy = 13.94 days; 95% CI 2.049-10.080) as in the postoperative complications (laparoscopy - 4.8% versus laparotomy - 54.8%; p = 0.0001). There were not statistically significant differences in postoperative outcomes depending on the indication of surgery from the diagnosis. Conclusions: The experience in our centre shows that the laparoscopic approach for the surgical treatment of this disease offers advantages, regarding postoperative complications and median postoperative hospital stay, in comparison with the laparotomy.

**Publication Type:** Journal: Conference Abstract

**Source:** EMBASE

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**Title:** Prolonged use of intrauterine contraceptive device as a risk factor for tubo-ovarian abscess

**Citation:** Acta Obstetricia et Gynecologica Scandinavica, 2009, vol./is. 88/6(680-684), 0001-6349;1600-0412 (2009)

**Author(s):** Charonis G., Larsson P.-G.

**Language:** English

**Abstract:** Objective. The intrauterine contraceptive device (IUCD) is the most preferred method of reversible contraception in the world today. The Swedish Medical Products Agency currently recommends that women who had a copper IUCD inserted around age 40 do not need to have it extracted until one year after the menopause. Design. Retrospective study. Setting. Skovde Central Hospital, Sweden. Population. All 114 women receiving in-patient treatment for pelvic inflammatory disease (PID) over five years between January 2001 and December 2005. Methods. Comparison between cases of tubo-ovarian abscesses and salpingitis with focus on the effects of IUCDs used continually for 5 years after insertion. Main outcome measures. Age-adjusted risk of PID within or after five years of use, microbiological findings in blood, intraabdominal pus, cervical secretions or on extracted IUCDs. Results. There were 31 cases of tubo-ovarian abscesses, 63 of salpingitis, four of endometritis, and 16 of mild genital infection. When comparing women with the same IUCD 5 years to women having the same IUCD 5 years, the risk of tubo-ovarian abscess was higher than the risk of salpingitis (OR 19.7; 95% CI 4.5-87.2). The risk remained significant after adjustment for age, both on multiple regression analysis (OR 13.5; 95% CI 2.5-72.9) and in stratified analysis for the age group 35-50 years (OR 12.0; 95% CI 1.8-81.7). Blood or abdominal cultures from patients operated upon were positive in 47.7% of the sampled cases. Intestinal tract microbes and upper respiratory tract microbes were more common than sexually transmitted infection microbes. Conclusions. The current Medical Products Agency recommendation that a woman nearing the end of her reproductive phase can safely use the same IUCD for a period exceeding five years is challenged.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [Acta Obstetricia et Gynecologica Scandinavica](#)

Available from *John Wiley and Sons* in [Acta Obstetricia Et Gynecologica Scandinavica](#)

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**Title:** Retrospective analysis of laparoscopically treated cases of tubo-ovarian abscess

**Citation:** Turkiye Klinikleri Journal of Medical Sciences, 2009, vol./is. 29/4(872-876), 1300-0292 (2009)

**Author(s):** Onan M.A., Taskiran C., Karabacak O., Acar A., Korucuoglu U., Tiras M.B.

**Language:** English

**Abstract:** Objective: To analyze retrospectively laparoscopically treated cases of tubo-ovarian abscess (TOA). Material and Methods: This study is a retrospective analysis of cases treated for TOA via laparoscopy in a tertiary university care center between 1991 and 2004. By using preoperative findings (presence of acute abdomen, mass at the pelvic examination and ultrasonographic findings), patients were diagnosed. Laparoscopic findings were used as gold standard for the final diagnosis of TOA and to verify preoperative findings. Results: Overall, 12 of 18 (67%) TOA cases were treated solely via laparoscopy without complication or recurrence. The remaining 6 TOA cases (33%) were converted to laparotomy and treated successfully. Over the same study period, we had 230 cases undergoing laparoscopy with preoperative diagnosis of adnexial mass without signs and symptoms of infection but 2 of them had end diagnosis and treatment of TOA. Conclusions: Laparoscopy is an effective treatment modality along with antibiotics in TOA in different stages of the disease. The studied cases proved us TOA is an inflammatory process that can be noticed during laparoscopy within a wide range from acute purulent disease to silent cystic healed formation. Copyright © 2009 by Turkiye Klinikleri.

**Publication Type:** Journal: Article

**Source:** EMBASE

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**Title:** Genital tuberculosis as the cause of tuboovarian abscess in an immunosuppressed patient.

**Citation:** Infectious diseases in obstetrics and gynecology, Jan 2009, vol. 2009, p. 745060., 1098-0997 (2009)

**Author(s):** Ilmer, M, Bergauer, F, Friese, K, Mylonas, I

**Abstract:** Although tuberculosis (TB) is a major health problem worldwide, primary extrapulmonary tuberculosis (EPTB), and in particular female genital tract infection, remains a rare event. A 35-year-old human immunodeficiency virus (HIV) seropositive woman of African descent with lower abdominal pain and fever of two days duration underwent surgery due to left adnexal mass suggesting pelvic inflammatory disease. The surgical situs showed a four quadrant peritonitis, consistent with the clinical symptoms of the patient, provoked by a tuboovarian abscess (TOA) on the left side. All routine diagnostic procedures failed to determine the causative organism/pathogen of the infection. Histopathological evaluation identified a necrotic granulomatous salpingitis and specific PCR analysis corroborated Mycobacterium tuberculosis (M. Tb). Consequently, antituberculous therapy was provided. In the differential diagnosis of pelvic inflammatory disease, internal genital tuberculosis should be considered. Moreover, physicians should consider tuberculous infections early in the work-up of patients when immunosuppressive conditions are present.

**Source:** Medline

**Full Text:**

Available from *National Library of Medicine* in [Infectious Diseases in Obstetrics and Gynecology](#)

Available from *ProQuest* in [Infectious Diseases in Obstetrics and Gynecology](#)

Available from *National Library of Medicine* in [Infectious Diseases in Obstetrics and Gynecology](#)

Available from *Hindawi Publishing Corporation* in [Infectious Diseases in Obstetrics and Gynecology](#)

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**Title:** Pelvic inflammatory disease and tubo-ovarian abscess.

**Citation:** Infectious disease clinics of North America, Dec 2008, vol. 22, no. 4, p. 693-709, 0891-5520 (December 2008)

**Author(s):** Lareau, Susan M, Beigi, Richard H

**Abstract:** Pelvic inflammatory disease (PID) is common infection among reproductive-aged women. The presentation ranges from acute severe illness to a more indolent and mild clinical picture. Attention has turned to subclinical PID as an important entity. The majority of the public health impact from PID comes from its attributable long-term sequelae, including tubal-factor infertility, ectopic pregnancy, and chronic pelvic pain. Tubo-ovarian abscess (TOA) represents a severe form of PID. Vigilance is required when caring for women who have PID to detect the presence of a TOA given the serious nature of the infection and the potential need for procedural intervention.

**Source:** Medline

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**Title:** Bilateral tuboovarian abscess due to salmonella paratyphi : AAA case report and review of literature

**Citation:** Infectious Diseases in Clinical Practice, November 2008, vol./is. 16/6(408-410), 1056-9103 (November 2008)

**Author(s):** Kaur J., Kaistha N., Gupta V., Goyal P., Chander J.

**Language:** English

**Abstract:** Local abscess formation may occur as a complication of any Salmonella infection by either hematogenous or lymphatic spread but a tuboovarian site of Salmonella infection is rare. Mostly, predisposing factors such as ovarian abnormalities like dermoid cyst, endometrioma, cystadenoma, or simple cyst are present where hematogenously disseminated Salmonella tend to localize. A case of bilateral tuboovarian abscess due to Salmonella paratyphi A is being reported in a 36-year-old woman having multicystic ovaries to highlight the unusual presentation of this organism. In countries like India, where

Salmonella infections are endemic, differential diagnosis of Salmonella should always be kept in mind by the clinicians while dealing with the tuboovarian abscesses because there is a possibility of Salmonella infection at aberrant sites, especially in patients with history of persistent fever or gastroenteritis or any preexisting abnormality that makes the tissue or organ vulnerable. Copyright &#xa9; 2008 by Lippincott Williams & Wilkins.

**Publication Type:** Journal: Article

**Source:** EMBASE

**Full Text:**

Available from *Ovid* in [Infectious Diseases in Clinical Practice](#)

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**Title:** The ectopic appendicolith from perforated appendicitis as a cause of tubo-ovarian abscess.

**Citation:** Pediatric radiology, Sep 2008, vol. 38, no. 9, p. 1006-1008, 0301-0449 (September 2008)

**Author(s):** Vyas, Rajashree C, Sides, Corey, Klein, Deborah J, Reddy, Sireesha Y, Santos, Mary C

**Abstract:** Acute appendicitis is a common surgical cause of abdominal pain in the pediatric population. History and physical examination are atypical in up to a third of patients. Known potential complications of untreated or delayed management of acute appendicitis include appendiceal perforation, periappendiceal abscess formation, peritonitis, bowel obstruction and rarely septic thrombosis of mesenteric vessels. We report an unusual complication of perforated appendicitis. A tubo-ovarian abscess developed secondary to appendicolith migration into the right fallopian tube in a patient who had undergone interval laparoscopic appendectomy for perforated appendicitis. The retained appendicolith was visualized within the obstructed and dilated fallopian tube on contrast-enhanced CT. We discuss the CT imaging features of this unusual complication of perforated appendicitis.

**Source:** Medline

**Full Text:**

Available from *Springer Link Journals* in [Pediatric Radiology](#)

Available from *ProQuest* in [Pediatric Radiology](#)

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**Title:** Role of bedside transvaginal ultrasonography in the diagnosis of tubo-ovarian abscess in the emergency department.

**Citation:** The Journal of emergency medicine, May 2008, vol. 34, no. 4, p. 429-433, 0736-4679 (May 2008)

**Author(s):** Adhikari, Srikar, Blaivas, Michael, Lyon, Matthew



**Abstract:** Tubo-ovarian Abscess (TOA) is a complication of pelvic inflammatory disease (PID) requiring admission, i.v. antibiotics and, possibly, aspiration or surgery. The purpose of this study was to describe the role of emergency department (ED) bedside transvaginal ultrasonography (US) in the diagnosis of TOA. This was a retrospective review of non-pregnant ED patients presenting with pelvic pain who were diagnosed with TOA using bedside transvaginal US. ED US examinations were performed by emergency medicine residents and ultrasound-credentialed attending physicians within 1 h after clinical assessment. ED US logs were reviewed for the diagnosis of TOA. Medical records were reviewed for risk factors, medical and sexual history, physical examination findings, laboratory results, additional diagnostic testing, hospital course, and a discharge diagnosis of TOA by the admitting gynecology service. A total of 20 patients with TOA were identified over a 3-year period. Ages ranged from 14 to 45 years (mean 27 years). Seven (35%) patients reported a prior history of PID or sexually transmitted disease, and 1 (5%) was febrile. All had lower abdominal tenderness and 9 (45%) had cervical motion or adnexal tenderness. The sonographic abnormalities included 14 (70%) with a complex adnexal mass, 5 (25%) with echogenic fluid in the cul-de-sac, and 3 (15%) patients with pyosalpinx. The discharge diagnosis was TOA by the admitting gynecology service for all patients. Our study illustrates the limitations of clinical criteria in diagnosing TOA and supports the use of bedside US when evaluating patients with pelvic pain and symptoms that do not meet classic Centers for Disease Control and Prevention criteria for PID.

**Source:** Medline

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**Title:** Predictors of tuboovarian abscess in acute pelvic inflammatory disease.

**Citation:** The Journal of reproductive medicine, Jan 2008, vol. 53, no. 1, p. 40-44, 0024-7758 (January 2008)

**Author(s):** Halperin, Reuvid, Svirsky, Ran, Vaknin, Zvi, Ben-Ami, Ido, Schneider, David, Pansky, Moty

**Abstract:** To define the predictors discriminating between patients developing tuboovarian abscess (TOA) and those with non-TOA acute pelvic inflammatory disease (PID) on the day of admission to the hospital. One hundred sixty-three patients were evaluated and divided into 2 groups: 42 patients diagnosed with clinical and sonographic evidence of TOA and 121 diagnosed with PID. Relying upon the significant differences between the 2 groups, cutoff levels yielding the best degree of discrimination were determined. A palpable adnexal mass in a woman older than 42 years and erythrocyte sedimentation rate > 50 mm/h were the best predictors of TOA. There was no difference in the mean temperature or number of sick days prior to hospitalization. Our results suggest that there are parameters that can be used as predictors of TOA and prolonged hospital stay. These parameters can advance the beginning of more aggressive antibiotic treatment.

**Source:** Medline

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**Title:** Comparison of CT- or ultrasound-guided drainage with concomitant intravenous antibiotics vs. intravenous antibiotics alone in the management of tubo-ovarian abscesses

**Citation:** *Ultrasound in Obstetrics and Gynecology*, January 2007, vol./is. 29/1(65-69), 0960-7692;1469-0705 (January 2007)

**Author(s):** Goharkhay N., Verma U., Maggiorotto F.

**Language:** English

**Abstract:** Objective: The purpose of this study was to compare the outcome of treatment of tubo-ovarian abscesses by imaging-guided drainage and antibiotics vs. intravenous antibiotics alone. Methods: A retrospective chart review of all patients hospitalized with a diagnosis of tubo-ovarian abscess was performed. Patients were categorized into two groups. The first group consisted of subjects treated with intravenous antibiotics alone. Patients in the second group had primary image-guided drainage with concomitant intravenous antibiotics. Treatment failures in the primary antibiotics group underwent salvage drainage when feasible. The primary outcome of interest was complete response. Secondary outcomes included need for additional treatment, duration of resolution of fever, total length of hospital stay, and complication rates. We also evaluated the effectiveness of secondary drainage in patients who failed primary antibiotic therapy alone. Results: A total of 58 patients were included in the study. Fifty patients were treated primarily with intravenous antibiotics; eight patients had primary drainage, which was guided by ultrasound in all cases. Complete response was noted in 29 (58%) patients treated with antibiotics alone. All eight (100%) patients in the primary drainage group responded to treatment. Of the 21 treatment failures with primary antibiotics, two underwent surgery and 19 (90.5%) had salvage drainage with either ultrasound or computed tomographic guidance; 18 of 19 salvage drainages led to complete recovery. Subjects in the primary drainage group required shorter hospital stays and showed more rapid resolution of fever. No significant morbidity was noted as a consequence of drainage procedures. A higher failure rate for secondary drainage was noted in older patients, those with larger tubo-ovarian abscesses, and those with a history of pelvic inflammatory disease. Conclusion: Drainage of tubo-ovarian abscesses with concomitant intravenous antibiotics is an effective and safe treatment for the primary or secondary treatment of tubo-ovarian abscesses. Copyright © 2006 ISUOG. Published by John Wiley & Sons, Ltd.

**Publication Type:** Journal: Review

**Source:** EMBASE

**Full Text:**

Available from *John Wiley and Sons* in [Ultrasound in Obstetrics and Gynecology](#)

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Available from *Wiley-Blackwell Free Backfiles NHS* in [Ultrasound in Obstetrics and Gynecology](#)

Available from *John Wiley and Sons* in [Ultrasound in Obstetrics and Gynecology](#)

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**Title:** Prevalence of tubo-ovarian abscess in adolescents diagnosed with pelvic inflammatory disease in a pediatric emergency department.

**Citation:** Pediatric emergency care, Sep 2006, vol. 22, no. 9, p. 621-625, 1535-1815 (September 2006)

**Author(s):** Mollen, Cynthia J, Pletcher, Jonathan R, Bellah, Richard D, Lavelle, Jane M

**Abstract:** The rate of tubo-ovarian abscess (TOA) in adolescents with pelvic inflammatory disease (PID) is reported to range from 17% to 20%. However, no reports have focused specifically on the adolescent patient presenting to the emergency department (ED), regardless of whether they are treated in the inpatient or outpatient setting. Recent changes in the 2002 Centers for Disease Control and Prevention (CDC) Guidelines for the Treatment of Sexually Transmitted Diseases and sexually transmitted infection screening programs are likely to have impacted both the prevalence of PID and the rates of its complications, particularly TOA. Given that most patients with PID are treated as outpatients, it is imperative to accurately assess the prevalence of TOA in this population. Therefore, we sought to determine the rate of TOA in female adolescents diagnosed with PID in a large urban pediatric ED. We performed a retrospective medical record review to assess the prevalence of TOA in adolescents diagnosed with PID in the ED by an attending physician in pediatric emergency medicine. All cases were identified on the basis of the clinical criteria from the 2002 CDC Guidelines for the Treatment of Sexually Transmitted Diseases. Data collected included historical and physical examination findings, and laboratory and radiological imaging results. Three (2.4%; 95% confidence interval, 0.5-6.7) of 127 patients diagnosed with PID in the ED who had imaging or clinical follow-up were also found to have a TOA. The mean age of the patients was 16 years. Most patients (89%) had imaging studies performed within 24 hours; most of these studies (97%) were pelvic ultrasounds. Eleven patients did not have imaging but had clinical follow-up within 72 hours. Four patients were diagnosed with PID during the study period and were lost to follow-up. The rate of TOA in adolescents diagnosed with PID in an urban pediatric ED is much lower than the rates previously reported in adolescents. This lower prevalence may be attributed to the broader 2002 CDC guidelines for diagnosing PID. In addition, community-based screening programs for *Chlamydia trachomatis* and *Neisseria gonorrhoeae* may help to identify young women at risk for developing PID earlier in the course of infection.

**Source:** Medline

**Full Text:**

Available from *Ovid* in [Pediatric Emergency Care](#)

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**Title:** Tuboovarian abscesses in postmenopausal women.

**Citation:** Taiwanese journal of obstetrics & gynecology, Sep 2006, vol. 45, no. 3, p. 234-238, 1875-6263 (September 2006)

**Author(s):** Hsiao, Sheng-Mou, Hsieh, Fon-Jou, Lien, Yih-Ron

**Abstract:** To compare the clinical features of tuboovarian abscess (TOA) in pre- and postmenopausal women. Between January 1992 and December 2000, all patients with surgically documented TOA at National Taiwan University Hospital were enrolled into this retrospective study. Salient information with respect to the history, current illnesses, risk factors, physical findings, laboratory data, surgeries and postoperative complications was obtained from medical records. Of 74 patients with TOA, nine were postmenopausal women. Compared with the premenopausal group, postmenopausal patients were significantly more likely to have contributing medical disorders ( $p < 0.001$ ) and concomitant pelvic malignant tumors ( $p = 0.037$ ). Thorough investigation for concomitant pelvic malignant tumors and meticulous medical care should be provided for postmenopausal women with TOA.

**Source:** Medline

**Full Text:**

Available from *Free Access Content* in [Taiwanese Journal of Obstetrics and Gynecology](#)

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**Title:** Nocardial tubo-ovarian abscess in a pregnant woman: a rare case report.

**Citation:** The Australian & New Zealand journal of obstetrics & gynaecology, Aug 2006, vol. 46, no. 4, p. 363-365, 0004-8666 (August 2006)

**Author(s):** Kepkep, Kumral, Tunçay, Yildiz Ayhan, Yigitbasi, Rafet

**Abstract:** Nocardiosis is a rare disease associated with significant morbidity and mortality in immunocompromised patients. We report on a 32-year-old pregnant woman with nocardiosis, which may be the third reported case in which no risk factor for the infection (other than the pregnancy itself) could be found. Pregnancy was complicated by the formation of a tubo-ovarian nocardia abscess, resulting in abortion. Laparotomy with trimethoprim-sulfamethoxazole led to complete cure of the patient at the end of the fifth month. This case emphasizes the difficulty in the diagnosis and treatment of a nocardial infection during pregnancy.

**Source:** Medline

**Full Text:**

Available from *John Wiley and Sons* in [Australian and New Zealand Journal of Obstetrics and Gynaecology](#)

Available from *John Wiley and Sons* in [Australian and New Zealand Journal of Obstetrics and Gynaecology](#)

Available from *Australian and New Zealand Journal of Obstetrics and Gynaecology* in [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#)

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**Title:** Hospitalizations for pelvic inflammatory disease and tuboovarian abscess.

**Citation:** Obstetrics and gynecology, Mar 2006, vol. 107, no. 3, p. 611-616, 1873-233X (March 2006)

**Author(s):** Paik, Clara K, Waetjen, L Elaine, Xing, Guibo, Dai, Jenny, Sweet, Richard L

**Abstract:** To describe the demographic characteristics of and procedures for patients hospitalized for pelvic inflammatory disease (PID) and tuboovarian abscess in California from 1991 to 2001. We used the International Classification of Diseases, 9th Revision, Clinical Modification, diagnostic and procedural codes in the California Patient Discharge Database and census data to calculate hospitalization rates for PID and tuboovarian abscess by age and race/ethnicity. We estimated the proportion of PID and tuboovarian abscess hospitalizations associated with procedures and estimated average length of hospital stay, readmission rates, and mortality. From 1991 to 2001, the California hospitalization rate for PID decreased by 61.5% (from 2.6 to 1.0 per 10,000 women). Tuboovarian abscess hospitalization rates declined by 33.3% during the same time period (from 0.6 to 0.4). Pelvic inflammatory disease hospitalization rates were highest among 20-39 year olds compared with other age categories. Black women aged 20-39 had the highest PID hospitalization rates compared with other racial/ethnic groups. The proportion of hospitalizations associated with hysterectomy was lowest for blacks. In California, the hospitalization rate for PID has declined between 1991 and 2001. Black women, 20-39 years of age, had the highest PID hospitalization rates. III.

**Source:** Medline

**Full Text:**

Available from *Obstetrics and Gynecology* in [Patricia Bowen Library and Knowledge Service West Middlesex university Hospital](#)

Available from *Ovid* in [Obstetrics and Gynecology](#)

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**Title:** Ruptured tubo-ovarian abscess in a postmenopausal woman presenting with septic shock: a case report and literature review.

**Citation:** Taiwanese journal of obstetrics & gynecology, Mar 2006, vol. 45, no. 1, p. 89-91, 1875-6263 (March 2006)

**Author(s):** Chia, Chun-Chieh, Huang, Soon-Cen

**Abstract:** To report a case of a ruptured tubo-ovarian abscess which induced septic shock in a postmenopausal woman. A 53-year-old postmenopausal woman was transferred to our emergency department for drowsiness, hypotension, and lower abdominal discomfort. Transabdominal sonography and computed tomography showed a large pelvic tumor over the left adnexa with some ascites. The uterus and other adnexa were unremarkable. Laboratory data, including blood count and electrolytes, showed leukocytosis and azotemia. Under suspicion of a ruptured adnexal tumor, laparotomy was performed and showed a large ruptured tubo-ovarian tumor arising from the left adnexa with intra-abdominal pus formation. Subtotal hysterectomy and bilateral salpingo-oophorectomy led to massive bleeding during manipulation of the left adnexa because of the necrotic change in the left infundibulopelvic vessels. Deep vein thrombosis and wound disruption occurred after the operation, but, fortunately, she recovered 1 month later. Tubo-ovarian abscesses in

postmenopausal women are uncommon but should be kept in mind with a pelvic tumor accompanied by septic shock, as this may cause a terrible outcome and other sequelae.

**Source:** Medline

**Full Text:**

Available from *Free Access Content* in [Taiwanese Journal of Obstetrics and Gynecology](#)

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