
**Author(s):** Read, S; Mullins, J

**Source:** Case reports in obstetrics and gynecology; 2018; vol. 2018; p. 1026287

**Publication Date:** 2018

**Publication Type(s):** Journal Article

**PubMedID:** 30057837

Available at Case reports in obstetrics and gynecology - from Europe PubMed Central - Open Access

**Abstract:**

Introduction: Pyomyoma, or suppurative leiomyoma, is a rare complication of uterine fibroids. It occurs most commonly in the setting of pregnancy, the immediate postpartum period, or postmenopausal status. It may also arise after recent uterine instrumentation, after uterine artery embolization, or in immunocompromised patients. The most likely cause of pyomyoma is vascular compromise followed by bacterial seeding from direct, hematogenous, or lymphatic spread. Diagnosis is difficult, as the condition is rare, presents with vague symptoms, and is difficult to identify on imaging. Definitive diagnosis is only possible with surgery. Pathology shows a degenerating fibroid with hemorrhage, necrosis, cystic degeneration, and/or inflammatory change. Cultures of the pus contained within often show polymicrobial infection.

Case Presentation:

Our patient is a 24-year-old nulligravid female who presented with a surgical abdomen, fever, hypotension, and leukocytosis. She had no significant prior medical or surgical history, no history of uterine instrumentation, and no history of pelvic infection; she was not currently sexually active at the time of presentation. She was taken to the operating room, where she underwent diagnostic laparoscopy. This showed a ruptured pyomyoma originating in the left broad ligament. She then underwent laparoscopic myomectomy. She was transferred to the ICU intubated; she slowly recovered on IV antibiotics and was discharged home on postoperative day 10.

Discussion: Pyomyoma is a rare condition and is even rarer in premenopausal patients without recent history of pregnancy or uterine instrumentation. This demonstrates an unusual case of spontaneous pyomyoma in the absence of risk factors, other than a history of known fibroids. Pyomyoma should be considered as a diagnosis in patients with sepsis, history of fibroids, and no other identifiable source of infection.

**Database:** Medline
2. Pyomyoma After Uterine Artery Embolization: Laparotomy Avoided by In-Bag Morcellation.

**Author(s):** Delbos, Lea; Laberge, Philippe Yves; Lemyre, Madeleine; Maheux-Lacroix, Sarah

**Source:** Journal of minimally invasive gynecology; Aug 2018

**Publication Date:** Aug 2018

**Publication Type(s):** Journal Article

**PubMedID:** 30098413

**Abstract:** We report a case of a pyomyoma in which in-bag morcellation allowed for a total laparoscopic hysterectomy instead of laparotomy, which has been recognized as the standard of care to avoid the spread of infection from morcellation. A 45-year-old multiparous woman presented with sepsis, pelvic pain, and leukocytosis at 1 month after undergoing uterine artery embolization for symptomatic uterine leiomyoma. Pelvic computed tomography scan revealed a 9-cm suspected pyomyoma. A total hysterectomy was performed using a laparoscopic approach with in-bag morcellation. The intervention was successful, and the postoperative course was uneventful. The patient was discharged on postoperative day 1 and was well at 2 months after surgery.

**Database:** Medline

3. An unexpected complication following uterine artery embolisation

**Author(s):** Peters S.; Wise M.; Buckley B.

**Source:** BMJ Case Reports; 2017; vol. 2017

**Publication Date:** 2017

**Publication Type(s):** Article

**PubMedID:** 28951427

**Available at BMJ case reports - from HighWire**

**Abstract:** A 35-year-old nulliparous woman underwent uterine artery embolisation (UAE) for heavy menstrual bleeding and anaemia due to fibroids, refractive to medical and surgical treatment. Bilateral UAE was performed after cephalosporin prophylaxis and analgesia. Postoperatively, pain and abdominal bloating were prominent. Symptoms were initially treated as postembolisation syndrome, and analgesia was escalated. By the third day, pain was worsening and the woman developed marked tachypnoea and tachycardia, with raised inflammatory markers and lactate. An abdominal X-ray and CT showed dilated colon. A colonoscopy demonstrated severe mucosal ulceration down to the muscular layer. A subtotal colectomy and end ileostomy formation was performed with intraoperative findings of toxic megacolon with near perforation. The cause of the toxic megacolon, in the absence of previous bowel pathology, was attributed to pseudomembranous colitis as a consequence of single dose prophylactic antibiotic. Copyright © 2017 BMJ Publishing Group Ltd.

**Database:** EMBASE
4. An unusual cause of postabortal fever requiring prompt surgical intervention: A pyomyoma and its imaging features

Author(s): Bagga R.; Rai R.; Kalra J.; Saha P.K.; Singh T.
Source: Oman Medical Journal; Jan 2017; vol. 32 (no. 1); p. 73-76
Publication Date: Jan 2017
Publication Type(s): Article

Abstract: Pyomyoma is an unusual complication of leiomyoma, occurring most commonly in the postpartum, postabortal, and post-menopausal periods. It develops due to infection in necrotic foci within leiomyoma, which is more common during pregnancy due to rapid growth, and in postmenopausal women due to vascular insufficiency. Other contributing factors are curettage, gynecological surgery, cervical stenosis, immunodeficiency, and recently, uterine artery embolization. It presents with a typical triad of sepsis, leiomyoma, and absence of any apparent source of infection. We report a case of persistent postabortal fever in a 26-year-old female due to a pyomyoma, which resolved after a myomectomy. Pyomyoma may become life threatening in the event of intraperitoneal rupture resulting in pyoperitoneum and septic shock. Hence, gynecologists should consider this diagnosis in women with a leiomyoma and sepsis in the absence of any apparent source of infection. Copyright © 2017, Oman Medical Specialty Board. All rights reserved.

Database: EMBASE


Author(s): Martins, Juliana G; Gaudenti, Dawn; Crespo, Frank; Ganesh, Dervi; Verma, Usha
Source: Case reports in obstetrics and gynecology; 2016; vol. 2016; p. 8695318
Publication Date: 2016
Publication Type(s): Journal Article
PubMedID: 27073705

Abstract: Uterine leiomyomas are the most common benign tumors in young females and leading cause of hysterectomy. Uterine artery embolization is a safe option for women who wish to retain their uterus. Several complications have been reported including expulsion and sepsis. MRI is a useful pretreatment tool to predict results and outcomes. We report a case of a 44-year-old female with a history of uterine fibroids with the largest one being intracavitary. Patient underwent uterine artery embolization that was complicated by endomyometritis that failed antibiotics, leading to sepsis and hysterectomy.

Database: Medline
6. Large uterine pyomyoma in a perimenopausal female: A case report and review of 50 reported cases in the literature

Author(s): Iwahashi N.; Mabuchi Y.; Shiro M.; Yagi S.; Minami S.; Ino K.

Source: Molecular and Clinical Oncology; Nov 2016; vol. 5 (no. 5); p. 527-531

Publication Date: Nov 2016

Publication Type(s): Article

Available at Molecular and Clinical Oncology - from Unpaywall

Abstract: Pyomyoma is a rare complication, which without antibiotics or surgical intervention, may cause sepsis and mortality. The present study reported a case of large uterine pyomyoma in a perimenopausal female. A 53-year-old multi-gravida woman was referred to the Department of Obstetrics and Gynecology (Wakayama Medical University, Wakayama, Japan) due to progressive abdominal distension. The patient presented with anemia gravis, severe inflammatory reaction and cachexia. Computed tomography revealed a large unilocular mass, 50 cm in size, with an irregular surface and thickened wall, occupying the entire abdomen. Following antibiotic medication, the patient underwent a total abdominal hysterectomy and bilateral salpingo-oophorectomy. Intraoperative findings demonstrated a solid tumor arising from the back of the uterine body. A total of 12 liters of purulent, malodorous fluid was drained from the tumor. The resected mass was 50 cm in size and 13.5 kg in weight. Cultures of the pus revealed the presence of Streptococcus agalactiae. Pathological findings revealed suppurative leiomyoma with no malignancy. Large pyomyoma is difficult to distinguish from a gynecological malignant tumor types, particularly in perimenopausal women with non-specific clinical presentation. Although pyomyoma is a benign tumor, care must be taken to discriminate these from large abdominal tumors. Copyright © 2016, Spandidos Publications. All rights reserved.

Database: EMBASE
7. Postpartum Pyomyoma, a Rare Complication of Sepsis Associated with Chorioamnionitis and Massive Postpartum Haemorrhage Treated with an Intrauterine Balloon.

**Author(s):** Kaler, Mandeep; Gailer, Ruth; Iskaros, Joseph; David, Anna L

**Source:** Case reports in obstetrics and gynecology; 2015; vol. 2015; p. 609205

**Publication Date:** 2015

**Publication Type(s):** Journal Article

**PubMedID:** 26199774

**Abstract:** We report the successful treatment of a postpartum pyomyoma, a rare but serious complication of uterine leiomyomata in a 28-year-old primigravida. The patient was treated for an Escherichia Coli (E. Coli) urinary tract infection (UTI) at 16 weeks of gestation. She had asymptomatic short cervical length on ultrasound scan at 20 weeks that was managed conservatively due to the presence of further UTI and received antibiotics. She was known to have a left sided intramural leiomyoma. She presented with abdominal pain and vaginal bleeding at 23(+1) weeks of gestation and the next day she had spontaneous vaginal delivery and collapsed with E. Coli septic shock, massive postpartum haemorrhage, and disseminated intravascular coagulation and was successfully treated with oxytocic drugs, a Rusch intrauterine balloon, and intravenous antibiotics. Eleven days postnatally she re-presented with systemic sepsis and was treated for retained products of conception. Sepsis persisted and investigations showed a postpartum pyomyoma that was initially managed with intravenous antibiotics to avoid surgery. Ultimately she required laparotomy, drainage of pyomyoma, and myomectomy. Postoperative recovery was good and the patient had a successful pregnancy two years later.

**Database:** Medline

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8. Pyomyoma as a Rare Source of Postpartum Sepsis.

**Author(s):** DeMaio, A; Doyle, M

**Source:** Case reports in obstetrics and gynecology; 2015; vol. 2015; p. 263518

**Publication Date:** 2015

**Publication Type(s):** Journal Article

**PubMedID:** 26345393

**Abstract:** Pyomyoma, also known as suppurative leiomyoma, is a rare clinical complication that occurs when a leiomyoma undergoes infarction and subsequent infection. A high index of suspicion is required to make the diagnosis and can be guided by a classic triad of symptoms that includes abdominal pain, sepsis without an obvious source, and a history of leiomyoma. In the vast majority of these cases, total abdominal hysterectomy is required to avoid severe morbidity and potential mortality. We present an unusual case of a postpartum pyomyoma that was successfully treated without the need for hysterectomy. With strong clinical suspicion, early diagnosis, and appropriate management, some affected patients may preserve fertility.

**Database:** Medline
9. Peritonitis due to uterine perforation by a degenerated fibroid - An atypical presentation

Author(s): Mathew C.T.; Chitra T.V.; Kanchanamalai K.

Source: Indian Journal of Public Health Research and Development; Jul 2015; vol. 6 (no. 3); p. 281-283

Publication Date: Jul 2015

Publication Type(s): Article

Abstract: Uterine leiomyomas are the most common tumors of the uterus arising in the smooth muscle of the myometrium. Uterine perforation by a fibroid is a very rare complication. Here we are reporting a case of a perimenopausal 44 year old who presented in the emergency department of our hospital with acute abdomen and evidence of peritonitis. The patient was sent for an USG which showed a fundal fibroid and free fluid within the peritoneum which was confirmed by a CT scan. Laparotomy revealed a perforation on the uterus due to a degenerated fibroid leading to ascending infection, peritonitis and sepsis. Copyright © 2015, Indian Journal of Public Health Research & Development. All rights reserved.

Database: EMBASE

10. Uterine artery embolisation - Clinical outcomes and complications post UAE

Author(s): Ali R.; Mitra D.; Iskaros J.

Source: BJOG: An International Journal of Obstetrics and Gynaecology; Jun 2015; vol. 122; p. 3-4

Publication Date: Jun 2015

Publication Type(s): Conference Abstract

Available at BJOG: An International Journal of Obstetrics & Gynaecology - from Wiley Online Library Science, Technology and Medicine Collection 2017

Abstract: Introduction: The aim of uterine artery embolisation (UAE) for fibroids is to offer a less invasive alternative to hysterectomy or myomectomy with preservation of the uterus, and a faster recovery time, with short and medium term relief of symptoms. Early and medium term results show UAE is as effective as surgery for symptom control with one third of patients requiring second intervention within 5 years. Methods: A documentary review and telephone survey of patients at University College London Hospital undergoing UAE between 2009 and 2013 was made, recording technical success, complications, symptomatic relief and overall patient satisfaction. Results: In total, 51 women (average age 45) underwent UAE at University College London Hospital; 40/51 (78%) with multiple and 11/51 (21%) with single fibroid with average uterus size of 14 weeks of gestation. The average duration of stay was 2 days. Immediate side effects were seen in 10/51 (19%) and included inadequate pain relief (4), groin hematoma (2), sepsis (2), high blood pressure (1) and vaginal discharge (1). 45/51 (88%) had postprocedure MRI at 6 weeks with 35 of these (77%) showing shrinkage in fibroid size. Twenty five women (49%) were satisfied with the outcome of UAE. However, one reported reduced orgasm postprocedure, another reported premature menopause three were lost to follow-up and 21 (43%) had recurrence of symptoms. Of the 21 women who had recurrence of symptoms, 8 had repeat UAE, 11 had further surgical intervention (TCRF = 5, TAH = 4, myomectomy = 2) and 2 had mirena insertion. Five of the eight women who underwent repeat UAE showed improvement in symptoms post-UAE while two are waiting for a repeat procedure and one is awaiting follow-up. Overall symptomatic improvement with patient satisfaction was seen in 30/51 women (58%) post-UAE. Conclusion: UAE is a good alternative to surgery for symptomatic relief in patients with uterine fibroids. It is associated with a shorter hospital stay and shows good outcome. Careful patient selection and assessment by a multidisciplinary team is important. Pain is an expected side effect and therefore should be proactively managed. Non-target embolisation is a rare
side effect but can cause premature ovarian failure and impaired sexual function. However, shorter recovery time with uterine preservation needs to be weighed against the need for reintervention.

**Database:** EMBASE

11. **Sepsis puerperal grave por piomiomas uterinos multiples** Severe puerperal sepsis due to multiple uterine pyomyomas

**Author(s):** Iglesias Roman N.; Luis Siles A.; Alguacil Prieto M.E.; Narvion Casorran C.; Fernandez Esteban J.A.

**Source:** Progresos de Obstetricia y Ginecologia; May 2014; vol. 57 (no. 5); p. 220-224

**Publication Date:** May 2014

**Publication Type(s):** Article

**Abstract:** Infection of uterine leiomyomas or pyomyomas is a rare complication that sometimes affects pregnant or postpartum women. Its diagnosis is therefore difficult and its treatment is complicated. Since 1945, there have been 19 published cases of pyomyomas associated with pregnancy. We report the case of a postpartum patient with severe sepsis following infection of several fibroids. She was treated with urgent hysterectomy and antibiotic therapy. © 2013 SEGO.

**Database:** EMBASE

12. **Case study: An unusual cause of puerperal sepsis in a primigravida**

**Author(s):** Tan A.; Warwick A.; Fitz-Gibbon M.

**Source:** BJOG: An International Journal of Obstetrics and Gynaecology; Apr 2014; vol. 121 ; p. 144-145

**Publication Date:** Apr 2014

**Publication Type(s):** Conference Abstract

**Abstract:** Background Puerperal sepsis accounts for approximately 10 deaths per year in the UK and the mortality rate increases to 60% in severe septicemic shock. We report a case of severe puerperal sepsis that was managed surgically and histopathology confirmed a rare cause of this presentation. Case A 38-year-old primigravida Asian woman with a BMI of 38 kg/m2 had a planned induction of labour at 39 + 3 weeks' gestation due to oligohydramnios on her 38 + 6 weeks scan with no clinical sign of spontaneous rupture of membrane. Antenatally, she was commenced on daily aspirin from 12 weeks and had completed two doses of dexamethasone at 26 weeks. Her antenatal blood pressure and urine dipstick were unremarkable. Her obstetric scan at 14 + 5 weeks showed two masses suggestive of subserosal fundal fibroids measuring 186 mm and 60.8 mm. Her serial scans from 19 + 6 weeks till 38 + 6 weeks showed consistent growth velocity above 50th centile, normal placenta location, changes in fibroid size to 131 mm and 120.6 mm and one episode of oligohydramnios at 38 + 6 weeks. She progressed into labour via Syntocinon augmentation and delivered a healthy baby boy with normal Apgar scores. She was discharged a day later but returned 4 days later with pyrexia of 40.6degreeC and rigors. Clinical examination showed a grossly distended abdomen with a palpable right-sided tender mass. Her biochemical tests were deranged, including WCC 18.1x109/L and CRP 616 mg/L. Her septic screen including chest radiograph, throat, genital, blood and urine cultures were all unremarkable. Her pelvic ultrasound showed a suboptimal view of a large fundal fibroid with no retained tissues of conception. However, a subsequent CT abdomen and pelvic scan revealed a fundal fibroid of 175 mm with fat stranding, a sign highly suggestive of
acute torsion of fibroid. Having completed 48-h course of intravenous vancomycin and meropenem, she underwent a midline laparotomy that revealed a large, 200x130 mm, necrotic, degenerated fundal fibroid containing copious purulent discharge and a congested omentum adherent to it. A myomectomy and partial omentectomy was successfully performed. Postoperatively, she received 3-day supportive care from intensive care before transferring to the ward. She made progressive recovery and was then discharged 9 days later. Histopathology confirmed a leiomyoma with extensive coagulative necrosis and a necrotic omentum with widespread inflammation. Conclusion Prompt imaging studies including pelvic ultrasound and CT scan should be performed to exclude fibroid degeneration and pyomyoma as possible causes of puerperal sepsis.

**Database:** EMBASE

13. **Clostridium hathewayi bacteraemia and surgical site infection after uterine myomectomy.**  
**Author(s):** Dababneh, Ala S; Nagpal, Avish; Palraj, Bharath Raj Varatharaj; Sohail, M Rizwan  
**Source:** BMJ case reports; Mar 2014; vol. 2014  
**Publication Date:** Mar 2014  
**Publication Type(s):** Case Reports Journal Article  
**PubMedID:** 24596408  
Available at [BMJ case reports](https://bmjcase.com) - from Europe PubMed Central - Open Access  
**Abstract:** A 42-year-old woman with uterine fibroids underwent myomectomy. She developed postoperative sepsis and bloodstream infection with Clostridium hathewayi secondary to an infected haematoma. The patient was readmitted after failure of oral antibiotic therapy and underwent intrauterine drainage followed by prolonged parenteral antibiotic therapy. The patient was followed for 1 year and did not have any relapse of infection.  
**Database:** Medline

14. **Postpartum pyomyoma: A rare complication of leiomyoma**  
**Author(s):** Magro M.; Gafson I.  
**Source:** Journal of Obstetrics and Gynaecology; Feb 2014; vol. 34 (no. 2); p. 202-203  
**Publication Date:** Feb 2014  
**Publication Type(s):** Article  
**PubMedID:** 24456455  
**Database:** EMBASE
15. Postnatal pyomyoma: a diagnostic dilemma

Author(s): Sirha R.; Miskin A.; Abdelmagied A.

Source: BMJ case reports; 2013; vol. 2013

Publication Date: 2013

Publication Type(s): Review

PubMedID: 24177458

Available at BMJ case reports - from Europe PubMed Central - Open Access

Abstract: Pyomyoma is a rare, yet potentially fatal complication of uterine leiomyoma. Clinically difficult to diagnose as a result of non-specific symptoms, its presentation is commonly confused with fibroid degeneration. Late diagnosis has severe implications, with the mortality of the condition remaining high. Despite the availability of powerful antibiotics, surgical intervention is frequently required for the curative treatment of the critically ill patient. Here, we report a case of postpartum pyomyoma developing after a complicated antenatal course of placenta praevia resulting in recurrent antepartum haemorrhage, preterm prelabour rupture of membranes and eventual emergency caesarean section for cord prolapse. We highlight the diagnostic difficulty and delay in definitive surgical intervention. Using this case, we have emphasised the importance of strong clinical suspicion when faced with a triad of pain, sepsis without an obvious source and a known diagnosis of leiomyoma to prevent fatalities.

Database: EMBASE

16. Postpartum fever in the presence of a fibroid: Sphingomonas paucimobilis sepsis associated with pyomyoma

Author(s): Del Borgo C.; Belvisi V.; Morelli F.; Vetica A.; Marocco R.; Tieghi T.; Lichtner M.; Mastroianni C.M.; Maneschi F.

Source: BMC Infectious Diseases; Dec 2013; vol. 13 (no. 1)

Publication Date: Dec 2013

Publication Type(s): Article

PubMedID: 24308831

Available at BMC infectious diseases - from ProQuest (Hospital Premium Collection) - NHS Version
Available at BMC infectious diseases - from BioMed Central

Abstract: Background: Pyomyoma is a life-threatening complication of uterine leiomyoma. It may occur in post-menopausal women, during pregnancy and in the postpartum period. Fever may be the only manifestation during the early stages of the disease. We detail the first reported case of postpartum pyomyoma-related sepsis due to Sphingomonas paucimobilis, a Gram-negative bacillus that is gaining recognition as an important human pathogen. Case presentation: A woman presented with an asymptomatic uterine fibroid and a two-week history of fever during the postpartum period. Suppurative uterine leiomyoma was diagnosed, and blood cultures grew Sphingomonas paucimobilis. The myoma was surgically removed from the uterus without hysterectomy. Intravenous antimicrobial therapy was given for fifteen days, and the patient was discharged from hospital in good condition. Conclusion: Pyomyoma should be considered in broad differential diagnosis of postpartum fever. This case highlights a unique disease manifestation of S. paucimobilis, an emerging opportunistic pathogen with increasing significance in the nosocomial setting. © 2013 Del Borgo et al.; licensee BioMed Central Ltd.

Database: EMBASE
17. Fibroid infected with Escherichia coli requiring surgical removal following uterine artery embolization.

**Author(s):** Sterling, Lynn; Boutet, Marianne; Colak, Errol; Lefebvre, Guylaine

**Source:** Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstétrique et gynécologie du Canada : JOGC; Sep 2013; vol. 35 (no. 9); p. 823-826

**Publication Date:** Sep 2013

**Publication Type(s):** Case Reports Journal Article

**PubMedID:** 24099448

**Abstract:** BACKGROUND Uterine fibroid necrosis and infection is a rare but potentially serious event following uterine artery embolization (UAE). We describe a case of surgical removal of an infected necrotic uterine fibroid. CASE A 31-year-old Jehovah’s Witness with severe anemia presented with sepsis following UAE. The uterus was preserved by performing transvaginal surgical removal. Final pathology demonstrated Escherichia Coli infection of the necrotic fibroid. The patient improved postoperatively. CONCLUSIONS Surgical removal of an infected necrotic fibroid may be a preferred option for women wishing to avoid hysterectomy following UAE. Appropriate case selection and optimization of hemoglobin concentration before UAE is important to minimize complications.

**Database:** Medline

18. Haemophilus influenzae acute endometritis with bacteremia: Case report and literature review

**Author(s):** Martin D.; Guarner J.; Dbouk R.H.; del Rio C.; DeLeon-Carnes M.

**Source:** Diagnostic Microbiology and Infectious Disease; Jun 2013; vol. 76 (no. 2); p. 235-236

**Publication Date:** Jun 2013

**Publication Type(s):** Article

**PubMedID:** 23537790

**Abstract:** Haemophilus influenzae rarely causes acute endometritis and the few published cases have always been associated with intrauterine devices (IUD). A 48-year-old female presented to the emergency department with a 3-day history of lower abdominal pain and fever. On physical examination she was tachycardic, hypotensive and had fundic tenderness to palpation. Imaging showed uterine leiomyomas and no IUD. Blood cultures grew a non-typable H. influenzae. Endometrial biopsy demonstrated acute endometritis. Tissue Gram stains and cervico-vaginal cultures were negative; however, polymerase chain reaction (PCR) determined presence of H. influenzae on the formalin-fixed, paraffin-embedded tissue biopsy. Evidence of H. influenzae in the endometrium demonstrates that the uterus can be the nidus for sepsis when invasive H. influenzae is found with no distinct usual primary focus. This case underscores the importance pathologic diagnosis and molecular testing. © 2013 Elsevier Inc.

**Database:** EMBASE
19. Spontaneous perforation of uterus secondary to necrotic leiomyoma and pyometra: A rare presentation in a postmenopausal woman

Author(s): Palmer C.E.; Roberts A.; Semple D.


Publication Date: Jun 2013

Publication Type(s): Conference Abstract

Available at BJOG: An International Journal of Obstetrics & Gynaecology - from Wiley Online Library Science, Technology and Medicine Collection 2017

Abstract: Case A 63-year-old woman with Still's disease, CKD and hypertension presented to A&E with diarrhoea, vomiting, abdominal pain and signs of sepsis. A provisional diagnosis of diverticulitis was made and she was managed conservatively by the surgical team. Over the following 5 days she became more unwell with abdominal distension, guarding and early signs of peritonitis. An urgent CT of her abdomen and pelvis revealed pneumoperitoneum, free fluid in the abdomen and an enlarged uterus thought to be secondary to a uterine fibroid. The patient was taken to theatre for an emergency laparotomy for a suspected bowel perforation. Purulent free fluid was observed within the peritoneal cavity with several fibrinous adhesions and interloop abscesses. The uterus contained a 1.5 cm perforation on the left side of the fundus with an associated pyometra. Full exploration of the abdominal cavity confirmed the absence of bowel perforation. The uterus and cervix were examined and biopsies taken. The endometrial biopsy later ruled out any evidence of malignancy, viral or bacterial infection. Postoperatively the patient required a prolonged stay on the intensive care unit (ITU). Twelve days later she continued to deteriorate despite multiple courses of antibiotics. Following discussions with the patient and her family, a multidisciplinary decision was made to return to theatre and perform a hysterectomy and salpingo-oopherectomy. At laparotomy the uterine perforation was still present with an obvious intrauterine necrotic mass. A sub-total hysterectomy was performed due to the patient's poor intraoperative condition. Histology of the uterus confirmed an infarcted and necrotic benign leiomyoma. Despite overall improvement from the second operation, the patient remained in hospital for 3 months with several postoperative complications including: pelvic abscess (drained by IR), right sided heart failure, paralytic ileus and a wound infection. She was discharged to intermediate care for further rehabilitation. Discussion As far as we are aware, this is the second reported case of spontaneous uterine perforation secondary to an infarcted leiomyoma in a postmenopausal woman. It is estimated that uterine perforation due to pyometra is 0.01-0.5%, more commonly caused by malignancy and pathologies resulting in cervical occlusion (radiation cervicitis, atrophic cervicitis, polyps, infection, congenital anomalies). There are rare reports of uterine perforation secondary to red degeneration of fibroids in pregnancy, however leiomyoma infarction is even less reported. Conclusion Uterine perforation should be considered in women with an unexplained pneumoperitoneum. Where intra-abdominal sepsis is caused by a perforated pyometra, early surgical intervention is required.

Database: EMBASE
20. Pyomyoma after uterine artery embolization

Author(s): Rosen M.L.; Anderson M.L.; Hawkins S.M.
Source: Obstetrics and Gynecology; Feb 2013; vol. 121 (no. 2); p. 431-433
Publication Date: Feb 2013
Publication Type(s): Article
PubMedID: 23344399
Available at Obstetrics and Gynecology - from Free Medical Journals . com
Available at Obstetrics and Gynecology - from Ovid (Journals @ Ovid) - Remote Access
Abstract:Background: Pyomyoma (suppurative leiomyoma of the uterus) is a rare condition resulting from infarction and infection of a leiomyoma. It can lead to sepsis and death unless treated with antibiotics and aggressive surgical intervention. Case: A 47-year-old multigravid woman with symptomatic uterine leiomyomas presented with fever, pelvic pain, and leukocytosis after uncomplicated uterine artery embolization. Pyomyoma was suspected after computed tomography scan demonstrated an enlarged, heterogeneous uterus containing copious myometrial air. She underwent supracervical hysterectomy, lysis of adhesions, and right salpingo-oophorectomy.
Conclusion: Surgical management of pyomyoma may be necessary early in the management of pyomyoma after uterine artery embolization. © 2013 by The American College of Obstetricians and Gynecologists. Published by Lippincott Williams & Wilkins.
Database: EMBASE

21. Extrauterine leiomyomata presenting with sepsis requiring hemicolecotomy.

Author(s): Dan, Dilip; Harnanan, Dave; Hariharan, Seetharaman; Maharaj, Ravi; Hosein, Ian; Naraynsingh, Vijay
Source: Revista brasileira de ginecologia e obstetricia : revista da Federacao Brasileira das Sociedades de Ginecologia e Obstetricia; Jun 2012; vol. 34 (no. 6); p. 285-289
Publication Date: Jun 2012
Publication Type(s): Case Reports Journal Article Review
PubMedID: 22801604
Available at Revista brasileira de ginecologia e obstetricia : revista da Federacao Brasileira das Sociedades de Ginecologia e Obstetricia - from PubMed
Abstract:Extrauterine leiomyomas are rare, benign, and may arise in any anatomic sites. Their unusual growth pattern may even mimic malignancy and can result in a clinical dilemma. Occasionally, uterine leiomyomas become adherent to surrounding structures. They also develop an auxiliary blood supply, and lose their original attachment to the uterus, thus becoming 'parasitic'. Parasitic myomas may also be iatrogenically created after uterine fibroid surgery, particularly if morcellation is used. This report presented two cases of parasitic myomas with sepsis, both requiring right hemicolecotomy. It reviewed the pertinent literature.
Database: Medline
22. Pyomyoma after uterine artery embolization.

**Author(s):** Shukla, Pratik A; Kumar, Abhishek; Klyde, David; Contractor, Sohail  
**Source:** Journal of vascular and interventional radiology : JVIR; Mar 2012; vol. 23 (no. 3); p. 423-424  
**Publication Date:** Mar 2012  
**Publication Type(s):** Letter Case Reports  
**PubMedID:** 22365300  
**Database:** Medline

23. Severe Clostridial Pyomyoma following an Abortion Does Not Always Require Surgical Intervention.

**Author(s):** Stroumsa, Daphna; Ben-David, Eliel; Hiller, Nurith; Hochner-Celnikier, Drorith  
**Source:** Case reports in obstetrics and gynecology; 2011; vol. 2011 ; p. 364641  
**Publication Date:** 2011  
**Publication Type(s):** Journal Article  
**PubMedID:** 22567505  
Available at Case reports in obstetrics and gynecology - from Europe PubMed Central - Open Access  
**Abstract:** Background. Clostridial infection following pregnancy may be fatal, and surgery is considered as the treatment of choice. We suggest a conservative management in selected cases when preservation of fertility is of major importance. Case. A 41-year-old primigravida presented with abdominal pain and fever, one day following dilatation and curettage at 20 weeks of gestation. Her abdomen was diffusely tender, with a uterus enlarged to 20 weeks' gestation. Laboratory studies were consistent with sepsis and hemolysis. CT demonstrated a gas-containing mass compressing the uterine cavity, and presence of air in pelvic veins. Blood cultures were positive for Clostridium perfringens. The patient was treated conservatively, with IV antibiotics and fluid resuscitation, and recovered. Conclusion. In selected cases of infected myoma complicated by clostridial sepsis, refraining from surgical intervention is a possible therapeutic approach.  
**Database:** Medline
24. The postembolization syndrome in fibroid uterine artery embolization

**Author(s):** Tsikouras P.; Souftas V.; Mylonas T.V.T.; Dafopoulos A.; Mantazis M.; Zervoudis S.; Petsidis G.; Prassopoulos P.; Liberis V.

**Source:** Climacteric; Jun 2011; vol. 14 ; p. 200

**Publication Date:** Jun 2011

**Abstract:**

**Introduction:** Uterine artery embolization (UAE) is a treatment option for women with symptomatic fibroids and adenomyosis. The aim of this study is to investigate the severity and frequency of the postembolization syndrome (PES), if proper medication is administered.

**Material and method:** 93 consecutive patients, aged 37-55, participated in this study. All participants received antibiotics (cefoxitin 2gr/2 times daily for 2 days). To avoid the pain during the procedure, which is performed with local anesthesia, we developed a pain management protocol consisting of the patient’s preload with 10 mg diazepam i.m. one hour prior to UAE, 5 mg pethidine i.m. during the procedure and another 5 mg pethidine i.m. immediately after the procedure, tramadol hydrochloride 100 mg tablets and lornoxicam 4 mg tablets two times/day for 15 days. Pain levels were evaluated using the visual analogue pain intensity scale (VAS), where 0=no pain and 10=worst possible pain. Laboratory examinations (White Blood Count and CRP) and possible fever, nausea, vomiting, or malaise were also recorded.

**Results:** Regulation of the postprocedural pain was very satisfactory. The VAS was 9 during the first 3 hours and 7 during the next 5 hours. The postprocedural pain cannot be predicted from fibroid volume. In four cases (4.3%) a low grade PES with fever, abdominal pain, nausea, vomiting, malaise and elevated white blood count and CRP occurred, that persisted approximately a maximum of seven days postprocedural and was treated conservatively. Serious complications, such as ischemic injury to the uterus, sepsis and pelvic infection did not occur. The procedure was effective in treating the symptoms in 89/93 patients.

**Conclusion:** If proper medication is administered, UAE is a very well tolerated procedure.

**Database:** EMBASE

25. Sepsis secondary to cesarean scar diverticulum resembling an infected leiomyoma.

**Author(s):** Ou, Yu-Che; Huang, Kuan-Hui; Lin, Hao; Eng, Hock-Liew; Lu, Hsien-Ming; Changchien, Chan-Chao

**Source:** Taiwanese journal of obstetrics & gynecology; Mar 2011; vol. 50 (no. 1); p. 100-102

**Publication Date:** Mar 2011

**Publication Type(s):** Case Reports Journal Article

**PubMedID:** 21482384

Available at [Taiwanese journal of obstetrics & gynecology](http://www.taiwanjog.org/) - from Free Medical Journals.com

Available at [Taiwanese journal of obstetrics & gynecology](http://www.taiwanjog.org/) - from Unpaywall

**Database:** Medline
26. Life-threatening clostridial sepsis in a postmenopausal patient with degenerating uterine leiomyoma.

Author(s): Bryant, Christopher S; Perry, Latoya; Shah, Jay P; Kumar, Sanjeev; Deppe, Gunter

Source: Case reports in medicine; 2010; vol. 2010 ; p. 541959

Publication Date: 2010

Publication Type(s): Journal Article

PubMedID: 20585368

Available at Case reports in medicine - from Europe PubMed Central - Open Access

Abstract: Clostridium perfringens is a fulminant infection that affects patients with a high rate of morbidity and mortality. Fortunately, C. perfringens-associated sepsis and death in the gynecologic patient is rarely encountered. We report a case of intrauterine C. perfringens presenting as life-threatening sepsis in a postmenopausal patient.

Database: Medline

27. Uterine leiomyoma causing urinary obstruction of the transplanted kidney.

Author(s): Abate, M; Wadhwa, N K; Nord, E P

Source: Clinical nephrology; Apr 2010; vol. 73 (no. 4); p. 314-317

Publication Date: Apr 2010

Publication Type(s): Case Reports Journal Article

PubMedID: 20353740

Abstract: Obstruction of the ureter as a cause of acute or chronic kidney injury in the transplanted kidney is unusual beyond the perioperative period. We present a case of ureteric obstruction, infection and septicemia caused by a large uterine leiomyoma in a patient 8 years post transplantation. Initial treatment comprised of intravenous fluid and antibiotics followed by urgent drainage of the collecting system. Subsequent hysterectomy resolved the obstruction with resolution of renal failure. In young female kidney transplant recipients, gynecologic causes, although rare, need to be considered as possible etiologies of urinary obstruction and renal dysfunction.

Database: Medline
28. Uterine fibroid embolization

Author(s): Walsh C.A.

Source: New England Journal of Medicine; Dec 2009; vol. 361 (no. 23); p. 2292-2293

Publication Date: Dec 2009

Publication Type(s): Letter

PubMedID: 19955532

Available at The New England journal of medicine - from Massachusetts Medical Society Please select "Login via Athens or your institution" and enter your OpenAthens username and password.

Available at The New England journal of medicine - from ProQuest (Hospital Premium Collection) - NHS Version

Database: EMBASE

29. Septic cervical fibroid in pregnancy necessitating hysterectomy

Author(s): Nathani F.; Whinney S.; Ahmed I.; Ibrahim A.


Publication Date: Oct 2009

Publication Type(s): Conference Abstract

Available at International Journal of Gynecology & Obstetrics - from Wiley Online Library Science , Technology and Medicine Collection 2017

Abstract: Objective: To discuss the presentation, investigation and outcome of this condition and compare with the available clinical evidence. Materials and Methods: A Medline search of similar complication was performed using the term Pregnancy, fibroid and cervical fibroid. Case summary: A 33 year old otherwise fit and well primiparous lady was seen at 9 weeks in EPAU for per vaginal bleeding. USS at 9+5/40. showed bulky fibroid uterus. Fibroid cluster measured 12x11cm throughout the uterus and covered the internal os. She was followed up in antenatal clinic and USS at 28+5/40 showed cephalic presentation with Post fibroid 15cm in size, obstructing cervical os Placenta was low lying. She was admitted to labour ward at 31+5/40 with history of significant painless PV bleed. She was pale with HR 100, BP 109/67 and Abdomen was soft and non tender revealing a transverse lie. CTG was difficult to interpret. A speculum examination revealed blood clots and closed cervical os. The overall clinical impression was significant APH (placenta praevia, abruption). Emergency LSCS was planned with an extra-utero transfer of baby. CS was performed, on opening lower uterine segment; it was difficult to reach the baby due to fibroid. Uterus was therefore opened higher up and baby delivered by breech extraction. She was referred to the LW via community midwife after 8 days feeling unwell vomiting with decreased urine output and lack of bowel movements. Vaginal examination revealed a very offensive smelling pink mass emerging from vagina Placental tissue and cervix was difficult to visualise. IV Antibiotics were initiated and EUA performed which revealed a jelly like smelly material covering the OS. This was suggestive of necrosed fibroid tissue attached deeply, this was removed as much as possible. Plan was if not settled in 48 hrs - for TAH. A MRI revealed a very large uterine fibroid (21x11x15 cm) prolapsing through the cervical canal into the vagina and the caudal part of the fibroid contains collections of gas indicative of necrosis. She continued to be pyrexial without improvement on conservative treatment. A hysterectomy was then performed which confirmed necrosis of the uterus. Conclusion: We found two similar case reports [1,2] in literature with one having myomectomy and the other initially attempted myomectomy but ultimately culminating into abdominal hysterectomy similar to this case.

Database: EMBASE
30. Klebsiella pneumoniae septicaemia - Complicated by pyomyoma in a diabetic patient: Case report and review of the literature

**Author(s):** Chen S.-N.; Bill; Ken-Jen Y.

**Source:** International Journal of Gynecology and Obstetrics; Oct 2009; vol. 107

**Publication Date:** Oct 2009

**Publication Type(s):** Conference Abstract


**Abstract:** Objectives: The rate of K. pneumoniae infection is increased in individuals with impaired host defenses (eg, diabetes mellitus). Virulent strains are prone to cause a destructive tissue abscess syndrome. Pyomyoma (suppurative leiomyoma) is a rare disease, which is considered to be a serious complication of uterine leiomyoma. Since 1945, only 24 patients have been reported and ours is the 25th. Materials and Methods: A 56-year-old woman is newly diagnosed as type 2 DM, complicated with DKA. She presented with abdominal pain, poor intake, low urine output, chill, and fever for one day. The physical examination revealed a temperature of 39.2°C, cervical motion tenderness, and firm abdominal mass, 16-week pregnancy in size. Leukocyte 28,260/mm³. Infected myoma or tubo-ovarian abscess was diagnosed. Results: Blood culture isolates of Klebsiella pneumoniae. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed 10 days later. Pathological results revealed a intramural leiomyoma with hyaline necrosis and abscess formation. Conclusion: We presented the first case pyomyoma complicated by Klebsiella pneumoniae septicemia in a diabetic patient. Greenspoon et al. reported a clinical triad of the disease as follows: 1) bacteremia or sepsis, 2) leiomyoma, and 3) no other source of infection. Pyomyoma is a rare complication which may be difficult to diagnose especially in those who have nonspecific clinical presentations and no history of leiomyoma. Delayed diagnosis may result in serious complications such as septic shock, peritonitis and uterine rupture. However, adequate surgical treatment and broad spectrum antibiotics may decrease serious morbidity and mortality.

**Database:** EMBASE
31. Septic uterus after uterine artery embolization for uterine myomas triggered by endometrial biopsy.

Author(s): Reinblatt, Shauna L; Krishnamurthy, Srinivasan; Valenti, David; Tulandi, Togas

Source: Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC; Apr 2008; vol. 30 (no. 4); p. 344-346

Publication Date: Apr 2008

Publication Type(s): Case Reports Journal Article

PubMedID: 18430385

Abstract: BACKGROUND: Women who undergo uterine artery embolization (UAE) and subsequently have heavy vaginal bleeding require assessment to establish the cause. Endometrial sampling in such women should not necessarily carry more than the usual risk. CASE: Two women who had undergone UAE presented with recurrence of heavy vaginal bleeding. In order to rule out possible endometrial malignancy, we performed an endometrial biopsy. Both patients had large and necrotic intramural myomas adjacent to the endometrium. They developed septic uterus shortly after endometrial biopsy and each required a hysterectomy. The postoperative course in the first case was complicated by deep vein thrombosis and enterovaginal fistula. CONCLUSION: Because of the high risk of infection, women with a history of UAE and necrotic myoma adjacent to the endometrium should not undergo endometrial biopsy. We recommend evaluation of the relation of myomas to the endometrium.

Database: Medline

32. Spontaneous vaginal expulsion of an infected necrotic cervical fibroid through a cervical fistula after uterine artery embolization: A case report

Author(s): Vural B.; Ozkan S.; Çiftci E.; Bodur H.; Yucsesoy I.

Source: Journal of Reproductive Medicine for the Obstetrician and Gynecologist; Jun 2007; vol. 52 (no. 6); p. 563-566

Publication Date: Jun 2007

Publication Type(s): Article

PubMedID: 17694986

Abstract: BACKGROUND: Uterine artery embolization (UAE) is promising, minimally invasive therapy being offered to women for treatment of fibroids. Although it seems to be safe and effective, major complications and adverse outcomes have been reported. CASE: A patient treated with UAE for a huge cervical fibroid presented with an infected, necrotic cervical mass lesion 4 weeks after the procedure. Spontaneous vaginal expulsion of the infected cervical fibroid from the left lateral cervical fistula tract occurred 3 weeks later while the patient was receiving antibiotic therapy. After 6 months of intervention, an approximately 99% regression rate in the fibroid volume was achieved. The patient gave birth to a healthy, female infant following a spontaneous, uneventful pregnancy and vaginal delivery. CONCLUSION: UAE appears to be associated with a significant reduction in fibroid volume. Expulsion of the infected, necrotic parts of the fibroid after UAE may be accepted as a natural process. Warning the patient about this potential risk, early recognition of infective complications and close follow-up seem to be crucial to avoiding potentially fatal septic shock. © Journal of Reproductive Medicine, Inc.

Database: EMBASE
33. Complications of uterine fibroid embolization.

**Author(s):** Schirf, Brian E; Vogelzang, Robert L; Chrisman, Howard B

**Source:** Seminars in interventional radiology; Jun 2006; vol. 23 (no. 2); p. 143-149

**Publication Date:** Jun 2006

**Publication Type(s):** Journal Article

**PubMedID:** 21326757

**Abstract:** Uterine fibroid embolization (UFE) is an increasingly popular, minimally invasive treatment option for women with symptomatic fibroid disease. UFE therapy in qualified hands is an effective, well-tolerated procedure that offers relief of fibroid symptoms with a low risk of complications. In the acute postprocedural period, immediate complications may relate to vascular access, thromboembolic events, infection, and pain management. Reported major complications include but are not limited to pulmonary embolus, uterine ischemia, necrosis, sepsis, and death. Non-life-threatening complications include altered ovarian and sexual function, subcutaneous tissue necrosis, expulsion of fibroid tissue, and treatment failure. Awareness of the known complications of UFE may allow more rapid diagnosis and effective therapeutic responses to complications when they occur.

**Database:** Medline

34. Sepsis leading to emergent hysterectomy after uterine artery embolization

**Author(s):** Martino M.A.; Garcia J.E.; Deutsch A.; Borges E.; Hoffman M.S.

**Source:** Journal of Gynecologic Surgery; 2005; vol. 21 (no. 4); p. 173-175

**Publication Date:** 2005

**Publication Type(s):** Article

**Abstract:** Background: Uterine artery embolization (UAE) is a minimally invasive radiologic procedure in which microspheres of poly vinyl alcohol particles are injected into the uterine artery to occlude blood flow. This paper reports a case of life-threatening sepsis requiring emergent hysterectomy following the therapeutic use of UAE to treat uterine hemorrhage. Case: This is a 42-year-old patient who had been referred to our center for uterine hemorrhage and was treated with UAE. The patient subsequently developed pyometria, leading to a life-threatening gram-negative septicemia. She ultimately required an emergent surgery. Conclusion: This case demonstrates that uterine infection and sepsis may develop following uterine artery embolization for leiomyomata uteri. Early identification and treatment with intensive care unit (ICU) management, antibiotics, and, possibly, surgical intervention are important components in the management of sepsis following UAE. © Mary Ann Liebert, Inc.

**Database:** EMBASE
35. Impending sepsis due to a ruptured pyomyoma with purulent peritonitis: A case report and literature review

Source: Taiwanese Journal of Obstetrics and Gynecology; Mar 2005; vol. 44 (no. 1); p. 75-79
Publication Date: Mar 2005
Publication Type(s): Review
Available at Taiwanese Journal of Obstetrics & Gynecology - from Free Medical Journals .com
Available at Taiwanese Journal of Obstetrics & Gynecology - from ScienceDirect

Abstract: Objective: Pyomyoma is an uncommon complication of benign leiomyoma. Here, we report a rare case of a perforated pyomyoma with purulent peritonitis. Case Report: A 53-year-old postmenopausal woman presented with impending septic shock on arrival at our emergency department. Physical examination and imaging studies revealed a pelvic mass with peritonitis. Emergency exploratory laparotomy due to suspicion of a ruptured pyomyoma or malignancy revealed a spontaneously perforated large pyomyoma leaking copious purulent material directly into the peritoneal cavity. Total hysterectomy and bilateral salpingo-oophorectomy were performed. Histopathology revealed no malignancy. The patient recovered smoothly after combined antibiotic therapy. Conclusion: Gynecologists should be aware of this rare emergency condition, especially when handling a patient with a history of leiomyoma uteri and if signs of infection or even sepsis are present.

Database: EMBASE

36. Fatal septicaemia following rupture of a gangrenous fibroid.

Author(s): Olagundoye, Victor; Jackson, Simon; Manek, Sanjiv
Source: BJOG : an international journal of obstetrics and gynaecology; Oct 2004; vol. 111 (no. 10); p. 1141-1142
Publication Date: Oct 2004
Publication Type(s): Case Reports Journal Article
PubMedID: 15383119
Available at BJOG : an international journal of obstetrics and gynaecology - from Wiley Online Library Science , Technology and Medicine Collection 2017
Database: Medline
37. Laparoscopic myomectomy during pregnancy resulting in septic necrosis of the myometrium.

**Author(s):** Sentilhes, L; Sergent, F; Verspyck, E; Gravier, A; Roman, H; Marpeau, L

**Source:** BJOG: an international journal of obstetrics and gynaecology; Sep 2003; vol. 110 (no. 9); p. 876-878

**Publication Date:** Sep 2003

**Publication Type(s):** Case Reports Journal Article

**PubMedID:** 14511975

**Available at:** BJOG: an international journal of obstetrics and gynaecology - from Wiley Online Library Science, Technology and Medicine Collection 2017

**Database:** Medline

38. Spontaneous expulsion of three large fibroids after uterine artery embolization

**Author(s):** D’Angelo A.; Laverge F.; Davies N.J.; Amso N.N.; Wood A.

**Source:** Fertility and Sterility; Aug 2003; vol. 80 (no. 2); p. 450-452

**Publication Date:** Aug 2003

**Publication Type(s):** Article

**PubMedID:** 12909514

**Abstract:** Objective: To report a case of uneventful expulsion of huge fibroids after uterine artery embolization. Design: Case report. Setting: The Department of Obstetrics and Gynaecology of a university hospital. Patient(s): A 45-year-old woman who underwent uterine artery embolization for fibroids. Intervention(s): Transfemoral selective bilateral uterine artery catheterization and injection of 500-700 mum polyvinyl alcohol particles. Main Outcome Measure(s): Recovery of the patient. Result(s): The spontaneous expulsion of three fibroids on three different occasions over several months resulted in a significant reduction in menstrual loss and dysmenorrhea. Conclusion(s): Delivering fibroids or sections of fibroids may be a natural process after uterine artery embolization, therefore it is essential to warn women about the possible risk. Close follow-up is also essential. The size of the fibroids discharged did not require hysterectomy. Adequate antibiotic cover may be necessary to prevent sepsis. © 2003 by American Society for Reproductive Medicine.

**Database:** EMBASE
39. Fatal sepsis after uterine artery embolization with microspheres.

**Author(s):** de Blok, Sjoerd; de Vries, Cees; Prinssen, Helma M; Blaauwgeers, Hans L G; Jorna-Meijer, Lorine B

**Source:** Journal of vascular and interventional radiology : JVIR; Jun 2003; vol. 14 (no. 6); p. 779-783

**Publication Date:** Jun 2003

**Publication Type(s):** Case Reports Journal Article

**PubMedID:** 12817046

**Abstract:** A case report of fatal sepsis after uterine artery embolization (UAE) with microspheres is presented. At autopsy, microspheres were found not only in arteries in the leiomyomata and myometrium but also in the parametria and the vagina, leading to a necrotic vaginal wall and uterine cervix. At present, polyvinyl alcohol particles are usually used in UAE. Recently, study results of the use of microspheres in embolization procedures have become available. The rationale for the choice of a specific embolization particle and the clinical implications of possible sepsis after UAE are discussed.

**Database:** Medline

40. Review of readmissions due to complications from uterine fibroid embolization.

**Author(s):** Mehta, H; Sandhu, C; Matson, M; Belli, A-M

**Source:** Clinical radiology; Dec 2002; vol. 57 (no. 12); p. 1122-1124

**Publication Date:** Dec 2002

**Publication Type(s):** Journal Article

**PubMedID:** 12475539

**Abstract:** AIM To determine the frequency, nature and outcome of complications resulting in readmission to hospital following uterine artery embolization (UAE). MATERIAL AND METHODS A retrospective review of the medical notes and available imaging of 42 consecutive patients who had undergone elective uterine artery embolization for the treatment of fibroid disease was performed. RESULTS The mean age of the patients was 42 years (range 31–54 years) and seven patients (17%) were readmitted to hospital. The median time to readmission was 3 weeks (range 1-29 weeks). All seven patients were admitted with signs and symptoms of infection. In four patients an organism was isolated from high vaginal swabs, and in one patient the midstream urine sample was confirmed as the source of infection. In the other two patients no definite source of infection was identified. All patients were treated with intravenous antibiotics. Six of the seven patients responded to treatment. The remaining patient required hysterectomy for uncontrolled uterine sepsis. CONCLUSION Readmission following UAE is common and arises secondary to infection. Infection can occur several months after the procedure.

**Database:** Medline
41. Factors affecting early surgical intervention after uterine artery embolization.
Author(s): Al-Fozan, Haya; Tulandi, Togas
Source: Obstetrical & gynecological survey; Dec 2002; vol. 57 (no. 12); p. 810-815
Publication Date: Dec 2002
Publication Type(s): Case Reports Journal Article Review
PubMedID: 12493983
Available at Obstetrical & gynecological survey - from Ovid (LWW Total Access Collection 2015 - Q1 with Neurology)
Abstract: Uterine artery embolization (UAE) is an effective technique for the management of uterine myoma. However, complications of this procedure can be serious, including uterine infection and bowel necrosis in conjunction with necrosis of subserous or pedunculated myomas. Treatment failure is more likely to occur in the presence of submucosal myoma associated with a uterine infection or a large myoma of more than 8 cm. Accordingly, patients whose primary symptoms include submucosal myoma and menorrhagia are best treated with a hysteroscopic myomectomy or hysterectomy. The role of the gynecologist is crucial for most effective management and safe use of uterine artery embolization.
TARGET AUDIENCE: Obstetricians & Gynecologists, Family Physicians
LEARNING OBJECTIVES: After completion of this article, the reader will be able to list the complications of uterine artery embolization for fibroids, to describe postembolization syndrome, and identify the myomas that are more likely to fail uterine artery embolization.
Database: Medline

42. Sepsis in second trimester of pregnancy due to an infected myoma: A case report and a review of the literature
Author(s): Grune B.; Zikulnig E.; Gembruch U.
Source: Fetal Diagnosis and Therapy; 2001; vol. 16 (no. 4); p. 245-247
Publication Date: 2001
Publication Type(s): Article
PubMedID: 11399889
Available at Fetal Diagnosis and Therapy - from ProQuest (Hospital Premium Collection) - NHS Version
Abstract: Considering the high incidence of uterine myomata in women in reproductive age, myomata are only found in 2% of all pregnancies. Although they frequently lead to complications in pregnancy, cases of pyomyomata during pregnancy are rarely reported. A 44-year-old gravida 1 in her 26th week of gestation was admitted to the hospital for septic temperatures of unknown cause. A 12-cm leiomyoma with solid structures of heterogenic sonographic pattern and cystic spaces had been documented on a prior first trimester sonogram. The myoma now appeared with the same size but an increased echogenicity of the liquid parts. Ultrasound guided aspiration of the fluid within the myoma showed an infection with Klebsiella pneumoniae. A cesarian section with myomectomy confirmed the diagnosis of a pyomyoma. Copyright © 2001 S. Karger AG, Basel.
Database: EMBASE
43. Fibroid embolisation: a technique not without significant complications.

**Author(s):** Vashisht, A; Studd, J W; Carey, A H; McCall, J; Burn, P R; Healy, J C; Smith, J R

**Source:** BJOG : an international journal of obstetrics and gynaecology; Sep 2000; vol. 107 (no. 9); p. 1166-1170

**Publication Date:** Sep 2000

**Publication Type(s):** Journal Article

**PubMedID:** 11002964


**Abstract:** Uterine artery embolisation is a new minimally invasive technique used for the treatment of fibroids. Twenty-one women underwent bilateral uterine artery embolisation at our unit, and we assessed the efficacy, morbidity and patient satisfaction with the procedure. Mixed outcomes were found. Reduction in fibroid volume measured by magnetic resonance imaging was impressive, and the majority of women felt their symptoms had improved. One woman achieved a full term pregnancy following the procedure. However, the procedure involved a significant inpatient stay, analgesia requirement, and a slower recovery time than anticipated. One woman died following overwhelming sepsis occurring 10 days after the procedure. Further studies are required to assess the role this technique may play in the management of uterine fibroids.

**Database:** Medline

44. Pelvic sepsis complicating embolization of a uterine fibroid.

**Author(s):** Robson, S; Wilson, K; Munday, D; Sebben, R

**Source:** The Australian & New Zealand journal of obstetrics & gynaecology; Nov 1999; vol. 39 (no. 4); p. 516-517

**Publication Date:** Nov 1999

**Publication Type(s):** Case Reports Journal Article

**PubMedID:** 10687781


**Database:** Medline
45. Fatal septicaemia after fibroid embolisation.

**Author(s):** Vashisht, A; Studd, J; Carey, A; Burn, P

**Source:** Lancet (London, England); Jul 1999; vol. 354 (no. 9175); p. 307-308

**Publication Date:** Jul 1999

**Publication Type(s):** Letter Case Reports

**PubMedID:** 10440317

**Abstract:** Uterine artery embolisation is a new technique for the treatment of uterine fibroids. We report a death after this procedure.

**Database:** Medline

46. Edwardsiella tarda bacteraemia - Complicated by acute pancreatitis and pyomyoma

**Author(s):** Yang C.-H.; Wang C.-K.

**Source:** Journal of Infection; Mar 1999; vol. 38 (no. 2); p. 124-126

**Publication Date:** Mar 1999

**Publication Type(s):** Article

**PubMedID:** 10342654

**Abstract:** Edwardsiella tarda (E. tarda) has recently become recognized as a pathogen in humans. Here we report a new case of E. tarda bacteraemia complicated by acute pancreatitis and pyomyoma. A 46-year-old female came to our emergency room complaining of sudden onset of left upper quadrant pain and vomiting for the previous few hours after drinking three bottles of wine. An abdominal computed tomography (CT) scan revealed multiple biliary stones, acute pancreatitis with extensive inflammatory change, and a large uterine myoma. Fever, watery diarrhoea, and mild suprapubic discomfort with vaginal spotting were noted soon after admission. The patient's blood cultures yielded E. tarda and symptoms subsided after antibiotic therapy. Fever and severe suprapubic pain with rebound tenderness developed 12 days late. Repeat abdominal CT scan revealed an enlarged uterine myoma with central necrosis. The patient subsequently underwent anterior total hysterectomy and bilateral salpingo-oophorectomy, revealing a uterine myoma with infarction and abscess formation. The patient recovered uneventfully and was discharged 1 week later.

**Database:** EMBASE
47. Uterine pyomyoma as a complication of pregnancy in an intravenous drug user

Author(s): Prahow J.A.; Cappellari J.O.; Washburn S.A.

Source: Southern Medical Journal; 1996; vol. 89 (no. 9); p. 892-895

Publication Date: 1996

Publication Type(s): Article

PubMedID: 8790313

Abstract: Pyomyoma (suppurative leiomyoma) is a rare entity characterized by infarction and infection of a uterine leiomyoma. Pyomyomas may pose both diagnostic and therapeutic difficulties, leading to potential complications such as bacteremia, uterine rupture, and even death. In the case we describe, uterine pyomyoma occurred as a complication of pregnancy in a 31-year-old woman with a history of intravenous drug abuse. We postulate that the patient's illicit drug use caused transient bacteremia resulting in bacterial seeding of a uterine leiomyoma that had infarcted due to pregnancy. Therapy consisted of total abdominal hysterectomy and intravenous antibiotic administration. We believe this is the first reported case of a pyomyoma developing in association with intravenous drug abuse.

Database: EMBASE

48. Fatal infection following transvaginal fibroid resection

Author(s): Jorgensen J.C.; Pelle J.; Philipsen T.

Source: Gynaecological Endoscopy; 1996; vol. 5 (no. 4); p. 245-246

Publication Date: 1996

Publication Type(s): Article

Abstract: An endometrial ablation and a hysteroscopic fibroid resection were performed in a 44-year-old healthy woman because of metrorrhagia. The surgery was uncomplicated except for a 1000-ml fluid deficit. Prophylactic antibiotics were not given. Less than 15 h after surgery signs of sepsis and disseminated intravascular coagulation developed. Despite being given adequate antibiotic and supportive treatment the patient deteriorated and died 72 h after the primary surgery. The question of prophylactic antibiotics is raised and their use is recommended. The importance of regarding a transvaginal endometrial ablation and fibroid resection as an alternative to hysterectomy and not as a suitable treatment for a low-grade menstrual disorder is stressed. A call is made for publication of all serious and unexpected complications in connection with transvaginal hysteroscopic operations.

Database: EMBASE
49. Pyomyoma associated with polymicrobial bacteremia and fatal septic shock: Case report and review of the literature

Author(s): Greenspoon J.S.; Ault M.; James B.A.; Kaplan L.
Source: Obstetrical and Gynecological Survey; 1990; vol. 45 (no. 9); p. 563-569
Publication Date: 1990
Publication Type(s): Review
PubMedID: 2204849
Abstract: A case of fatal septic shock due to pyomyoma (suppurative leiomyoma of the uterus) is reported. This unusual cause of sepsis and polymicrobial bacteremia should be rapidly identified because surgical therapy is essential for cure. Nine additional cases reported since 1945 are reviewed. Pyomyoma develops in association with either recent pregnancy or in postmenopausal patients who frequently have underlying vascular disease. The triad of: 1) bacteremia or sepsis; 2) leiomyoma uteri; and 3) no other apparent source of infection should suggest the diagnosis of pyomyoma.
Database: EMBASE

50. Streptococcus milleri pyomyoma simulating infective endocarditis.

Author(s): Prichard, J G; Lowenstein, M H; Silverman, I J; Brennan, J C
Source: Obstetrics and gynecology; Sep 1986; vol. 68 (no. 3)
Publication Date: Sep 1986
Publication Type(s): Case Reports Journal Article
PubMedID: 3737076
Abstract: A 37-year-old woman with clinically occult, abscessed uterine myomas presented with fever, anemia, splenomegaly, and viridans streptococcal bacteremia. An initial diagnosis of endocarditis was made, but fever persisted despite appropriate antibiotics. Pelvic pain evolved and laparotomy revealed an infected myoma. Streptococcus milleri was isolated from both the blood and the uterine abscess. Infected uterine myomata may be clinically silent despite producing sustained bacteremia. The occurrence of suppurating myomas and the significance of S milleri isolates are briefly reviewed.
Database: Medline

51. Clostridium perfringens septicemia complicating degenerating uterine leiomyomas

Author(s): Kaufmann B.M.; Cooper J.M.; Cookson P.
Source: American Journal of Obstetrics and Gynecology; 1974; vol. 118 (no. 6); p. 877-878
Publication Date: 1974
Publication Type(s): Article
PubMedID: 4361157
Abstract: Clostridial infection complicating gynecologic disease is uncommon, but not rare. Although members of the species Clostridium are frequently found in the female reproductive tract, to the authors' knowledge, a clostridial infection has not been reported in association with degenerating leiomyomas. This case report illustrates this association.
Database: EMBASE
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leiomyoma**).ti,ab

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