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West Middlesex University Hospital

Date: 8 July 2019
Sources Searched: Medline, Embase.

Filshie Clips for Sterilisation at Caesarean Section

See full search strategy

1. A comparison of the modified Pomeroy tubal ligation and Filshie clips for immediate postpartum sterilisation: A systematic review

Author(s): Madari S.; Gupta J.; Varma R.

Source: European Journal of Contraception and Reproductive Health Care; Oct 2011; vol. 16 (no. 5); p. 341-349

Publication Date: Oct 2011

Publication Type(s): Review

PubMedID: 21929362

Abstract: Objectives The modified Pomeroy procedure is currently the most widely used method for postpartum sterilisation. Alternative options are Filshie clips, Hulka-Clemens clips and Falope rings. In this systematic review we pooled the available evidence in order to compare the failure rates, complications, technical difficulties, and reversibility of the Pomeroy method and Filshie clips when resorted to for postpartum sterilisation. Methods We gathered data from MEDLINE, EMBASE (1970-2010), the Cochrane database, and reference lists of randomised controlled trials (RCTs) and observational studies. We extracted information on study design, sample characteristics, interventions, and outcomes. Results Our search yielded 294 citations of which 43 were retrieved for detailed evaluation. Fourteen studies were included in the systematic review. One RCT and three observational studies compared failure rates of the Pomeroy method vs. Filshie clips. A random-effects analysis of the pooled studies showed no difference in the failures rates between these two methods (odds ratio 0.76 [95% confidence interval 0.30-1.95]). Complication rates were similar although the Filshie clip technique was reported to be easier. Conclusions Filshie clip application is easier to perform. The failure and complication rates are comparable to those of the modified Pomeroy method, when performed in the postpartum period. © 2011 The European Society of Contraception and Reproductive Health.

Database: EMBASE

2. Pomeroy technique or Filshie clips for postpartum sterilisation? Retrospective study on comparison between Pomeroy procedure and Filshie clips for a tubal occlusion at the time of Caesarean section.

Author(s): Oligbo, Nicholas; Revicky, Vladimir; Udeh, Rebecca

Source: Archives of gynecology and obstetrics; Jun 2010; vol. 281 (no. 6); p. 1073-1075

Publication Date: Jun 2010

Publication Type(s): Comparative Study Journal Article

PubMedID: 20012304

Available at Archives of gynecology and obstetrics - from SpringerLink - Medicine

Abstract:OBJECTIVETo compare the failure rate (pregnancies) of a Pomeroy procedure and Filshie clips tubal occlusion at the time of Caesarean section.METHODThis is a retrospective observational study done in a district general hospital in the UK. There were 290 sterilisations performed at the time of Caesarean section over the period of 1994-2007. Studied population included 203 Pomeroy procedures and 87 Filshie clips applications. Follow-up period ranged from 2 to 15 years. A birth register and an operating theatre database were used to identify patients who underwent Caesarean section with a tubal occlusion. These patients' names were checked against the antenatal booking database, the early pregnancy assessment unit database, the operating theatre database in case of ectopic pregnancies, and a termination of pregnancy database to recognise failed sterilisation.RESULTSThere was no failure of tubal occlusion with a Pomeroy procedure (0/203). The failure rate of Filshie clips tubal occlusion was 1.15% (1/87) (p = 0.3). The length of the follow-up period ranged from 2 to 15 years (for Pomeroy procedure, median was 9 years and inter-quartile range (IQR) was 7; for Filshie clip, median was 8 years and IQR was 7).CONCLUSIONPomeroy technique appears to carry a lower risk of a failed sterilisation than Filshie clips tubal occlusion at the time of Caesarean section. However, Pomeroy procedure needs to be balanced against the speed and simplicity of Filshie clips tubal occlusion.

Database: Medline

3. Techniques for the interruption of tubal patency for female sterilisation

Author(s): Lawrie T.A.; Kulier R.; Nardin J.M.

Source: Cochrane Database of Systematic Reviews; Aug 2016; vol. 2016 (no. 8)

Publication Date: Aug 2016

Publication Type(s): Review

PubMedID: 27494193

Available at Cochrane Database of Systematic Reviews - from Cochrane Collaboration (Wiley)

Abstract: Background: This is an update of a review that was first published in 2002. Female sterilisation is the most popular contraceptive method worldwide. Several techniques exist for interrupting the patency of fallopian tubes, including cutting and tying the tubes, damaging the tube using electric current, applying clips or silicone rubber rings, and blocking the tubes with chemicals or tubal inserts. Objectives: To compare the different tubal occlusion techniques in terms of major and minor morbidity, failure rates (pregnancies), technical failures and difficulties, and women's and surgeons' satisfaction. Search methods: For the original review published in 2002 we searched MEDLINE and the Cochrane Central Register of Controlled Trials (CENTRAL). For this 2015 update, we searched POPLINE, LILACS, PubMed and CENTRAL on 23 July 2015. We used the related articles feature of PubMed and searched reference lists of newly identified trials. Selection criteria: All randomized controlled trials (RCTs) comparing different techniques for tubal sterilisation, irrespective of the route of fallopian tube access or the method of anaesthesia. Data collection and analysis: For the original review, two review authors independently selected studies, extracted data and assessed risk of bias. For this update, data extraction was performed by one author (TL) and checked by another (RK). We grouped trials according to the type of comparison evaluated. Results

are reported as odds ratios (OR) or mean differences (MD) using fixed-effect methods, unless heterogeneity was high, in which case we used random-effects methods. Main results: We included 19 RCTs involving 13,209 women. Most studies concerned interval sterilisation; three RCTs involving 1632 women, concerned postpartum sterilisation. Comparisons included tubal rings versus clips (six RCTs, 4232 women); partial salpingectomy versus electrocoagulation (three RCTs, 2019 women); tubal rings versus electrocoagulation (two RCTs, 599 women); partial salpingectomy versus clips (four RCTs, 3627 women); clips versus electrocoagulation (two RCTs, 206 women); and Hulka versus Filshie clips (two RCTs, 2326 women). RCTs of clips versus electrocoagulation contributed no data to the review. One year after sterilisation, failure rates were low (< 5/1000) for all methods.There were no deaths reported with any method, and major morbidity related to the occlusion technique was rare. Minor morbidity was higher with the tubal ring than the clip (Peto OR 2.15, 95% CI 1.22 to 3.78; participants = 842; studies = 2; I2 = 0%; high-quality evidence), as were technical failures (Peto OR 3.93, 95% CI 2.43 to 6.35; participants = 3476; studies = 3; I2 = 0%; high-quality evidence). Major morbidity was significantly higher with the modified Pomeroy technique than electrocoagulation (Peto OR 2.87, 95% CI 1.13 to 7.25; participants = 1905; studies = 2; I2 = 0%; low-quality evidence), as was postoperative pain (Peto OR 3.85, 95% CI 2.91 to 5.10; participants = 1905; studies = 2; I2 = 0%; moderate-quality evidence). When tubal rings were compared with electrocoagulation, postoperative pain was reported significantly more frequently for tubal rings (OR 3.40, 95% CI 1.17 to 9.84; participants = 596; studies = 2; I2 = 87%; low-quality evidence). When partial salpingectomy was compared with clips, there were no major morbidity events in either group (participants = 2198, studies = 1). The frequency of minor morbidity was low and not significantly different between groups (Peto OR 7.39, 95% CI 0.46 to 119.01; participants = 193; studies = 1, low-quality evidence). Although technical failure occurred more frequently with clips (Peto OR 0.18, 95% CI 0.08 to 0.40; participants = 2198; studies = 1; moderate-quality evidence); operative time was shorter with clips than partial salpingectomy (MD 4.26 minutes, 95% CI 3.65 to 4.86; participants = 2223; studies = 2; I2 = 0%; high-quality evidence). We found little evidence concerning women's or surgeon's satisfaction. No RCTs compared tubal microinserts (hysteroscopic sterilisation) or chemical inserts (quinacrine) to other methods. Authors' conclusions: Tubal sterilisation by partial salpingectomy, electrocoagulation, or using clips or rings, is a safe and effective method of contraception. Failure rates at 12 months post-sterilisation and major morbidity are rare outcomes with any of these techniques. Minor complications and technical failures appear to be more common with rings than clips. Electrocoagulation may be associated with less postoperative pain than the modified Pomeroy or tubal ring methods. Further research should include RCTs (for effectiveness) and controlled observational studies (for adverse effects) on sterilisation by minimally-invasive methods, i.e. tubal inserts and quinacrine.

Database: EMBASE

4. Randomized trial to compare perioperative outcomes of Filshie clip vs. Pomeroy technique for postpartum and intraoperative cesarean tubal sterilization: a pilot study.

Author(s): Kohaut, Bettina A; Musselman, B Lynn; Sanchez-Ramos, Luis; Kaunitz, Andrew M

Source: Contraception; Apr 2004; vol. 69 (no. 4); p. 267-270

Publication Date: Apr 2004

Publication Type(s): Research Support, Non-u.s. Gov't Randomized Controlled Trial Clinical Trial Journal Article

PubMedID: 15033399

Abstract:OBJECTIVETo compare, by conducting a randomized trial, Filshie clip and Pomeroy techniques for postpartum and intrapartum cesarean sterilizations in a United States teaching hospital with respect to surgeon preference and perioperative outcomes.METHODThirty-two obstetric patients consented for sterilization were randomized to Pomeroy technique or Filshie clip placement. Following the surgical procedure, surgeons and operating room technicians completed a survey regarding their experience with the procedures and preference. Patient demographic data, time for procedure and follow-up visits were obtained by chart review.RESULTSFor most postpartum sterilizations, the mean duration of the procedure was almost 7 min faster for the Filshie clip technique (p = 0.08); perioperative outcomes were equivalent (p = 0.05). Application of the Filshie clip was rated easier than Pomeroy suture application and, overall, the Filshie clip sterilization procedure was rated less difficult (p = 0.03). Seventy percent of surgeons preferred the Filshie clip technique and would choose it if only one postpartum sterilization method was available.CONCLUSIONFor obstetric sterilization, surgeons preferred the Filshie clip over the Pomeroy technique. In addition, operating time was shorter for the Filshie clip. This pilot study suggests that use of the Filshie clip technique has the potential to establish a new standard of care for postpartum and intrapartum cesarean sterilization.

Database: Medline

5. Spontaneous extrusion of a migrating Filshie clip through the anterior abdominal wall

Author(s): Krishnamoorthy U.; Nysenbaum A.M.

Source: Journal of Obstetrics and Gynaecology; Apr 2004; vol. 24 (no. 3); p. 328-329

Publication Date: Apr 2004

Publication Type(s): Article

PubMedID: 15203652

Database: EMBASE

6. Spontaneous expulsion of a Filshie clip through the anterior abdominal wall

Author(s): Lok I.H.; Lo K.W.K.; Ng J.S.W.; Tsui M.H.Y.; Yip S.K.

Source: Gynecologic and Obstetric Investigation; 2003; vol. 55 (no. 3); p. 183-185

Publication Date: 2003

Publication Type(s): Article

PubMedID: 12865600

Available at Gynecologic and obstetric investigation - from ProQuest (Health Research Premium) - NHS Version

Abstract: Tubal occlusion using Filshie clip is one of the most commonly performed operations for female sterilization. It is usually a simple and safe procedure, and operative complications are uncommon. We report a rare case of spontaneous expulsion of a Filshie clip through the anterior abdominal wall 5 years after sterilization. The management and possible underlying mechanisms are discussed and the related literature is reviewed. Copyright © 2003 S. Karger AG, Basel.

Database: EMBASE

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7. Comparative study of Filshie clip and Pomeroy method for postpartum sterilization.

Author(s): Yan, J S; Hsu, J; Yin, C S

Source: International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics; Nov 1990; vol. 33 (no. 3); p. 263-267

Publication Date: Nov 1990

Publication Type(s): Research Support, Non-u.s. Gov't Comparative Study Research Support, U.s. Gov't, Non-p.h.s. Randomized Controlled Trial Clinical Trial Journal Article

PubMedID: 1977646

Abstract:A prospective randomized comparison of the peri-operative complications and long-term sequelae between the Filshie clip and Pomeroy methods was undertaken in 200 postpartum women at Tri-Service General Hospital, Taipei, Taiwan. The peri-operative complications in either group were mild and infrequent. One pregnancy in the Pomeroy group was reported after follow-up for 24 months. No significant difference between the two groups was found in respect to long-term sequelae.

Database: Medline

Strategy 682324

#	Database	Search term	Results
1	Medline	(Filshie).ti,ab	125
2	Medline	(cesarean* OR caesarean* OR "c section*").ti,ab	56832
3	Medline	exp "CESAREAN SECTION"/	43223
4	Medline	(2 OR 3)	69498
5	Medline	(1 AND 4)	6
6	EMBASE	(Filshie).ti,ab	167
7	EMBASE	(cesarean* OR caesarean* OR "c section*").ti,ab	81325
8	EMBASE	exp "CESAREAN SECTION"/	90043

9	EMBASE	(7 OR 8)	107389
10	EMBASE	(6 AND 9)	9
11	Medline	((postpartum OR "post partum") ADJ2 (sterilisation OR sterilization)).ti,ab	186
12	Medline	exp "POSTPARTUM PERIOD"/	62240
13	Medline	exp "STERILIZATION, REPRODUCTIVE"/	13618
14	Medline	(12 AND 13)	399
15	Medline	(11 OR 14)	464
16	Medline	(1 AND 15)	15
17	EMBASE	((postpartum OR "post partum") ADJ2 (sterilisation OR sterilization)).ti,ab	198
18	EMBASE	exp PUERPERIUM/	58880
19	EMBASE	exp "FEMALE STERILIZATION"/	59662
20	EMBASE	(18 AND 19)	559
21	EMBASE	(17 OR 20)	682
22	EMBASE	(6 AND 21)	14