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GYNAE SPECTRUM

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Evaluation of implanting an intrauterine device within 48 hours after an early medical abortion

Introduction: Long-acting reversible contraception, particularly intrauterine devices (IUDs), has been shown to be beneficial for those who have had abortions since they are frequently at risk for recurrent, unexpected pregnancies. IUDs are safe and known to lower the chance of unintended pregnancy and the consequent need for abortions.[1] IUD use is higher after immediate insertion compared to delayed insertion following surgical and medicinal abortion in the first trimester and surgical abortion in the second trimester; however, expulsion rates are frequently higher at later gestations.[2] This study aimed to determine if placing an intrauterine device within 48 hours of a successful medical abortion up to 63 days of gestation results in greater usage rates six months later than insertion two to four weeks later.

Method: This randomised phase 3 trial includes 240 medical abortion participants at up to 63 days' gestation. Participants are divided into an interventional group and a control group. Participants in the interventional group used an intrauterine device within 48 hours after a medical abortion, and those in the control group used an intrauterine device up to 2 to 4 weeks after abortion. Patients completed surveys after three, six, and twelve months. The use of an intrauterine device six months after the abortion was the main outcome. The expulsion rate, discomfort during placement, adverse events and complications from the abortion, acceptance, and pregnancies and their outcomes were all considered secondary outcomes.

Results: 82% of participants in the intervention group and 77.7% of participants in the control group used an intrauterine device at 6 months after the abortion. After the intrauterine device was implanted, patients in the intervention group reported less discomfort than those in the control group. Patients in the intervention group (74.8%) preferred their allotted time of placement substantially more frequently than those in the control group (61.4%). In the intervention group (39.8%), ultrasonography was used more often during intrauterine device implantation than in the control group. Over the first six months after abortion, the expulsion rate was 9.3% in the intervention group and 4.5% in the control group. (Table.1) A retained gestational sac was found in one patient in the control group, and vacuum aspirations were experienced by three patients in the intervention group and two in the control group.

Discussion:

In this study, the expulsion rate was 9.3% in the intervention group and 4.5% in the control group at 6 months after abortion. According to the Korjamo et al.[3] study, fast-track insertion of LNG-IUS (levonorgestrel intrauterine system) following an early medical abortion may result in higher expulsion rates (12.5%), in comparison to delayed insertion at 3 months. Korjamo et al.[3] study found a higher expulsion rate compared to this study.

Time postabortion	Intervention			Control			*P* value, overall expulsions
Expulsion	Complete n (%)	Partial n (%)	Overall n (%)	Complete n (%)	Partial n (%)	Overall n (%)	
Within 3 mo							
mITT	4/112 (3.6)	4/112 (3.6)	8/112 (7.1)	2/114 (1.8)	1/114 (0.9)	3/114 (2.6)	.13
Per-protocol	4/97 (4.1)	3/97 (3.1)	7/97 (7.2)	2/89 (2.2)	1/89 (1.1)	3/89 (3.4)	.33
Between 3–6 mo							
mITT	2/111 (1.8)	0	2/111 (1.8)	1/112 (0.9)	0	1/112 (0.9)	.62
Per-protocol	2/97 (2.1)	0	2/97 (2.1)	1/89 (1.1)	0	1/89 (1.1)	1.00
Within 6 mo							
mITT	6/111 (5.4)	4/111 (3.6)	10/111 (9.0)	3/112 (2.7)	1/112 (0.9)	4/112 (3.6)	.11
Per-protocol	6/97 (6.2)	3/97 (3.1)	9/97 (9.3)	3/89 (3.4)	1/89 (1.1)	4/89 (4.5)	.25

Expulsions of intrauterine devices within 6 months following medical abortion. *P* values calculated with Fisher exact test.

mITT, modified intention-to-treat.

Hogmark. Immediate vs delayed placement of intrauterine devices after early medical abortion. Am J Obstet Gynecol 2023.

Table 1: Expulsions of intrauterine devices by time post abortion

Conclusion: Intrauterine device implantation was safe and can be performed without an ultrasound examination 48 hours after a medical abortion at 63 days' gestation. IUD installation 2–4 weeks after abortion was preferred by patients and was linked to reduced pain levels.

Intrauterine device implantation was effective in reducing pain after 2–4 weeks of abortion.

Reference

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Evaluate the effectiveness of patient-controlled intravenous analgesia with electro acupuncture after caesarean delivery

Introduction: Postoperative pain, which accounts for 54% of problems in postpartum women, is one of the most frequent consequences of caesarean delivery (CD). Approximately 20% of women who undergo CD report severe acute pain, which not only raises the risk of postpartum depression and has an impact on breastfeeding and baby health but also serves as a significant predictor of persistent postoperative pain. Finding the optimal analgesic regimen for managing post-CD pain is essential since it can negatively impact postpartum women's physical and emotional wellbeing.[1] Chronic pain conditions such as low back pain, neck pain, and osteoarthritis-related knee pain respond well to acupuncture treatments.[2] The aim of this study was to evaluate the effectiveness of patient-controlled intravenous analgesia with electro acupuncture (PCIA + EA) for postoperative analgesia following caesarean delivery, identify the best analgesic effect, and investigate the underlying mechanism of action.

Method: This randomised study included 174 primigravida women who underwent caesarean delivery and received fentanyl as patient-controlled intravenous analgesia for postoperative analgesia. Patients are divided into three treatment groups: 2 Hz electro acupuncture and 20/100 Hz electro acupuncture received electro acupuncture (EA) treatment at 2 or 20/100 Hz at the ST36 and SP6 points, whereas in the sham electro acupuncture group, non-meridian sites were treated with non-energized electro acupuncture devices. All groups received 4 electro-acupuncture sessions at 6, 12, 24, and 48 hours following surgery. The number of analgesic pump compressions 48 hours after surgery was the main endpoint. The secondary outcomes were fentanyl consumption at 48 hours following surgery, pain ratings at 6, 12, 24, and 48 hours after surgery, as well as the number of analgesic pump compressions at 6, 12, and 24 hours following surgery.

Result: The sham electro acupuncture group had a larger number of analgesic pump compressions. Pain ratings at 12, 24, and 48 hours following surgery were considerably lower in the 2 EA groups than in the sham EA group, with minimal difference between the 2-Hz and 20/100Hz groups. In the electrical acupuncture treatment groups compared to the sham electro acupuncture group, pain ratings at all four time points and fentanyl use at 48 hours following surgery were significantly lower. After 12, 24, and 48 hours after CD, pain

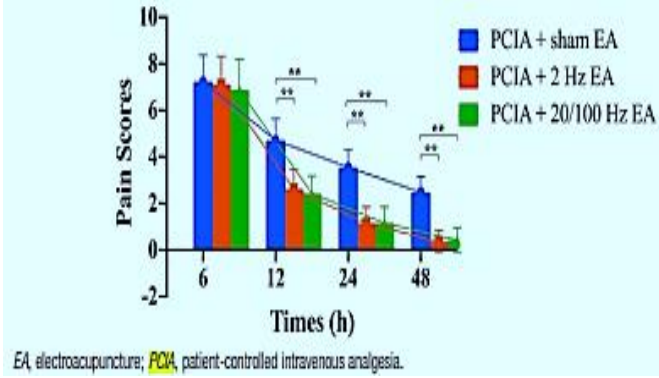

Figure 1: Pain score curves at 6, 12, 24, and 48 hours after surgery

ratings and fentanyl usage were considerably lower with PCIA + EA compared with PCIA + sham EA. (Figure 1)

Discussion:

In this study showed combination of PCIA with EA was clinically effective after caesarean delivery. Similarly, LI T, et al study showed EA was safe and effective, the excellent rate was 86.7% in the treatment group after C section.[3]

Conclusion: This study concluded that the PCIA + EA considerably improved clinical effectiveness after CD. EA is advised as a regular supplemental therapy for pain management after CD and its increase in the effectiveness of PCIA.

Electro acupuncture improved pain management after CD combined with patient-controlled intravenous analgesia.

References:

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Assessment of treatment of endometriosis with sharp excision compared to hybrid argon plasma coagulation (Hybrid-APC)

Introduction: Endometriosis treatment focuses on reducing discomfort, enhancing fertility, or avoiding organ damage. A laparoscopic method is typically recognised as the standard to remove endometrial implants and restore anatomy in addition to medicinal therapies. Several minimally invasive procedures, such as sharp excision and subsequent hemostasis, ablation with mono-polar or bipolar energy, CO2 laser vaporisation, thermal destruction with helium plasma, and ablation with plasma technology, are frequently used to treat peritoneal endometriosis.[1] A novel method for treating Barrett's oesophagus, hybrid argon plasma coagulation (HybridAPC), combines argon plasma coagulation (APC) with a water cushion function. This technique has achieved widespread acceptance for its efficacy and safety. Hybrid-APC provides a water cushion to shield the submucosal tissues, and APC can subsequently be used to remove the lesion.[2] The aim of this study was to assess the whole treatment of peritoneal endometriosis using Hybrid-APC and laparoscopic excision in terms of efficacy, application time, complications, and adhesion formation.

Method: This prospective study included 39 patients with 132 superficial endometriotic lesions. Patients were divided into 2 treatment groups: The Hybrid-APC group and the sharp excision (laparoscopic procedure) group. The primary outcome was to assess the endometriosis eradication rate following treatment with Hybrid-APC vs. sharp excision in a laparoscopic setting. Secondary outcome included evaluating the rate of peritoneal adhesion development and the length of the intervention. Adhesion development was assessed macroscopically using a second-look laparoscopy. For assessing the eradication rate, histologic samples were collected from previously treated sites.

Results: Peritoneal endometriotic lesions were treated with sharp excision (65 lesions) and Hybrid-APC (67 lesions). (Figure.2) Histological analysis was used to assess the eradication rate, which was 64.9% (20/57 lesions) with Hybrid-APC and 81.0% (11/58 lesions) with excision. Hybrid-APC had an adhesion formation rate of 5.3% (3/56 lesions), whereas sharp excision had a rate of 10.5% (6/57 lesions.

The average intervention time using HybridAPC was 69 s vs. 106 s per lesion, compared to excision during the first operation. It indicates that hybrid APC therapy was considerably faster than sharp excision.

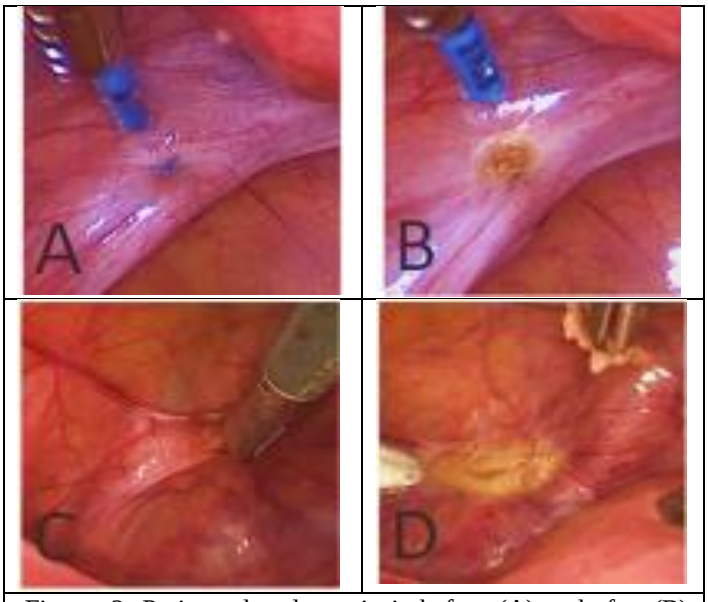

Figure. 2: Peritoneal endometriosis before (A) and after (B) treatment with Hybrid-APC and before (C) and after (D) sharp excision

Discussion:

In this study, Hybrid-APC procedure required less time and was significantly quicker and safer than sharp excision. Compared to the Stotz L. et al. study, sharp excision is a surgical procedure that requires more time and raises the risk of organ damage.[3]

Conclusion: Hybrid-APC was a novel method to treat peritoneal endometriosis with the option of needle-free waterjet injection for gynaecological laparoscopy. It is a safe approach that combines a number of benefits, including rapid and simple handling and a low adhesion rate.

Hybrid-APC was a safe and effective technique to treat peritoneal endometriosis.

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A rare case of emergency obstetric hysterectomy following conservative placenta accreta management

Introduction: Postpartum haemorrhage (PPH), which is characterised by a total blood loss of more than 500 mL following a vaginal birth or less than 1000 mL during a caesarean delivery and the presence of hypovolemic symptoms, can be fatal. Heavy postpartum bleeding is frequently caused by uterine atony, retained tissue or an invasive placenta, genital tract trauma, and coagulation disorders. Placenta accreta spectrum (PAS), also known as a morbidly attached placenta, is a clinical syndrome in which the placenta does not naturally separate after childbirth or cannot be forcefully removed without producing a severe and sometimes fatal amount of bleeding.[1] The placenta accreta was diagnosed by pathological examination. Unfortunately, due to conservative therapy, histological testing cannot be performed in the majority of cases of mild placental accreta. Due to its lack of specificity, molecular biology, a non-invasive test, is not frequently employed in clinical settings. This includes the detection of maternal creatine kinase, free foetal DNA, human chorionic gonadotropin mRNA, etc.[2]

Case presentation: A 32-year-old pregnant woman presents with irregular contractions at the 39th week of gestation. Due to a delay in the second stage of labour during the first pregnancy, the patient had to have a caesarean section, and the baby died due to a sudden cardiac attack. At ultrasound, it was clear that the internal cervical was being covered by the placenta's border (Figure 3). On examination, the patient's blood test result was as follows: white blood cells: 8.850/µl, haematocrit: 32%, and haemoglobin: 0.5 g/dl.

The patient experienced three consistent contractions every 10 minutes, and the cervical dilatation was 3–4 cm. The placenta accreta was discovered during the C-section. While the patient was hemodynamically stable during placenta extraction, an estimated 650 ml of blood was lost, but conservative care was maintained. Conservative treatment was initially intended to preserve the patient's uterus, and medical history was taken to retain fertility. Unfortunately, an emergency hysterectomy was done right away after birth due to persistent vaginal bleeding. Blood tests performed following surgery revealed Hct 16.1% and Hb 5.3 g/dl. Due to the patient's hemodynamic instability, abdominal

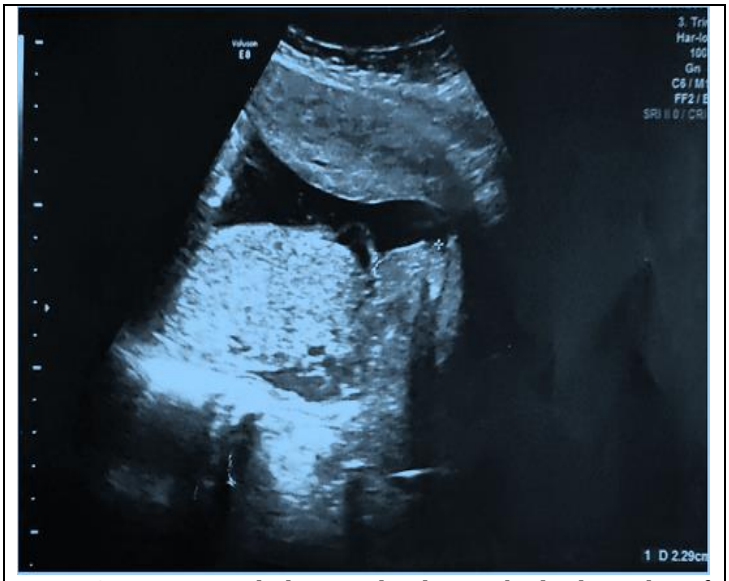

Figure.3: Transvaginal ultrasound indicates the leading edge of placenta at 2.29 cm from the internal

packing was used to protect against the frequent side effects of uncontrolled bleeding, such as hypothermia, coagulopathy, and acidosis.

Patient underwent a second look laparotomy to remove the packs after three days, and vitals are normal. The patient was hemodynamically stable, and the bleeding had entirely ceased. After 40 days of surgery, the patient visited the hospital for a routine follow-up. There were no further complications.

Discussion: A Sentilhes L, et al. study showed caesarean hysterectomy compared to conservative management exhibited higher rates of arterial embolization, endometritis, and readmission within six months of discharge; however, total estimated blood loss exceeding 3000 mL, any blood product transfusion, adjacent organ damage, and severe maternal morbidity were lower with conservative management compared to caesarean hysterectomy.[3]

Conclusion: If the conservative therapy fails, only an emergency obstetric hysterectomy can manage PPH and save the woman's life. A professional, interdisciplinary medical team was required to optimise the treatment.

Emergency obstetric hysterectomy was the only option to treat PPH and preserve the woman's life if the conservative therapy failed.

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