Adenomyosis, PCS and Fallopian Tube Embolization

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Disclosure

Speaker name:

I have the following potential conflicts of interest to report:

☐ Consulting

☐ Employment in industry

☐ Stockholder of a healthcare company

☐ Owner of a healthcare company

☐ Other(s)

☐ I do not have any potential conflict of interest
Adenomyosis

- 40-55 yrs old
- 20-30%
- Focal
- Diffuse
- Mixed with fibroids 50%
- Endometriosis 10%
Adenomyosis

- Menorrhagia
- Dysmenorrhea
- Metrorragia
Adenomyosis

- IUD (Mirena)
- Hormonal Therapy
- GnRH agonist
- Hysterectomy
Adenomyosis

Uterine Artery Embolization for the Treatment of Adenomyosis: A Review

Martin Popovic, BSc, Stefan Puchner, MD, Dominik Berzaczy, MD, Johannes Lammer, MD, Robert A. Bucek, MD

511 women 15 studies/76% improvement F/U 26/12

29 women (15 with fibroids) 82% Hysterectomy avoided, 72% satisfied
Adenomyosis

Uterine Artery Embolization for the Treatment of Adenomyosis: A Systematic Review and Meta-Analysis.

de Bruijn AM\textsuperscript{1}, Smink M\textsuperscript{2}, Lohle PNM\textsuperscript{3}, Huirne JAF\textsuperscript{4}, Twisk JWR\textsuperscript{4}, Wong C\textsuperscript{5}, Schoonmade L\textsuperscript{5}, Heenkamp WJK\textsuperscript{4}.

1037 women/30 studies, pure and mixed with fibroids, 83% improved up to 3 yrs F/U
PCS

- 30% in multipara with pelvic varices with no clear pelvic etiology
- 20% of lower limb VVs, its pelvic origin
PCS

- Chronic pelvic pain and heaviness (>6/12)
- Dysmenorrhea
- Dyspareunia
PCS

- US
- +/- CT (Nutcracker and May Thurnner)
- Venography and embolization
PCS

- Bilateral Ovarian vein embolization
- +/- Pelvic vein source of reflux embolization
- 1 to 2 sessions
- OP
- RT Brachial vein approach
- Coils and Foam
Effectiveness of Embolization or Sclerotherapy of Pelvic Veins for Reducing Chronic Pelvic Pain: A Systematic Review.

Daniels JP¹, Champaneria R², Shah L², Gupta JK², Birch J³, Moss JG⁴.

Trans-venous occlusion of incompetent pelvic veins for chronic pelvic pain in women: a systematic review.

Hansrani V¹, Abbas A², Bhandari S³, Caress AL⁴, Seif M⁵, McCollum CN⁶.

Female Pelvic Vein Embolization: Indication, Techniques, and Outcomes

Embolization is essential in the treatment of leg varicose veins secondary to pelvic venous insufficiency.

Pelvic congestion syndrome and pelvic varicosities.

Embolization of incompetent pelvic veins for the treatment of recurrent varicose veins in lower limbs and pelvic congestion syndrome.

Meneses L¹, Fava M, Díaz P, Andía M, Tejos C, Irarrazaval P, Uribe S.

> 75 % clinic succes
Fallopian Tube Embolization

- hydrosalpinx occurs in 10%–30% of infertile couples (reducing the probability of implantation and by increasing the risk of early pregnancy loss)
- Salpingectomies, salpingostomies, proximal tubal ligation ultrasound-guided hydrosalpinx aspiration and interventional tubal occlusion
[Abstract]

OBJECTIVE: To explore the effectiveness of the fallopian tubes embolization for the hydrosalpinx before in vitro fertilization and embryo transfer (IVF-ET).

METHODS: The fallopian tubes embolization was performed on 46 hydrosalpinx patients. First, the hysterosalpingography was performed to show the positions and shape of the hydrosalpinx. Then the hydrops was drawn into the celiac cavity in order to be absorbed after performing fallopian tube recanalization. Finally, transvaginal therapy was performed, putting the embolization microcoils into the fallopian tube through a micro-catheter. One month after the fallopian tubes embolization, hysterosalpingography was conducted to check for the effectiveness of the embolization. After 3 months, all the 46 patients received the treatment of IVF-ET.

RESULTS: The interventional treatment of 82 fallopian tubes obtained one time success among 46 cases of fallopian tubes embolization. Among them, obvious results were achieved in 72 fallopian tubes, taking up 88% of the total; effective results were seen in 10 fallopian tubes, accounting for 12% of the total. No one was invalid. In the same period, compared with the 91 cases of non-hydrosalpinx as the control group, the embolization group of patients achieved a higher fertilization rate (69%), and clinical pregnancy rate (41%), compared with the control group (63% and 39% respectively), but without a significant difference (P>0.05). However, the ectopic pregnancy rate (0) and the abortion rate (8%) were significantly lower than the control group (8%, 16% respectively; P<0.05).

CONCLUSIONS: Fallopian tubes embolization used in hydrosalpinx treatment before IVF-ET is an innovative approach, simple, safe, economical, with no negative impact on ovarian function. It can significantly increase the clinical pregnancy rate and prevent the occurrence of tubal pregnancy. It is a feasible and effective method.
Clinical Analysis of The Therapeutic Effects of Interventional Embolization on Hydrosalpinx

WANG Yi-tang, TAN Ji-chun, FU Peng, WU Ke, HOU Ji-chao, SUN Xiao-bo, XU Yang (1. Department of Intervention, Shenyang 242 Hospital. The Third Clinical Hospital of Shenyang Medical College, Shenyang 110034, China; 2. Gynecological Reproductive Center, Shengjing Hospital Affiliated to China Medical University)

Objective: To study the method, effect of interventional embolization on the treatment of hydrosalpinx and hydrocephalus after embolization for in vitro fertilization and embryo transfer (IVF-ET) effect.

Methods: Clinical data 300 cases of IVF-ET were retrospectively analyzed from Jan 2009 to Dec 2011 in our hospital. The cases were divided into three groups. Group A: Fallopian tube embolization in 200 cases, Group B: Selection of hydrosalpinx ligation in 50 cases, Group C: Hydrosalpinx without a treatment in 50 cases.

Results: 200 cases in group A embolized 350 fallopian tubes. Fallopian tube which had good embolic effect was 348 (99.7%). Coil falling to the umbrella end was 2 (0.03%). Group A and B with a mean clinical pregnancy rates were higher than those in group B, the difference was statistically significant (P < 0.05).

Conclusion: Fallopian tube embolization does not affect ovarian blood supply, nor by the intraperitoneal adhesion effect. For hydrosalpinx cases with severe abdominal adhesions has important clinical application value. Fallopian tube embolization before IVF-ET is a good management of hydrosalpinx.
The Beneficial Effect of Fallopian Tube Embolization on the Outcome of IVF-ET for Patients with Hydrosalpinx

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Abstract

Objective: To evaluate the effectiveness of fallopian tube embolization on in vitro fertilization and embryo transfer in patients with hydrosalpinx.

Methods: In total, 174 IVF-ET treatment cycles in patients with hydrosalpinges that pretreated with fallopian tube embolization and 696 cycles in age-matched patients with bilateral tubal obstruction were involved in this study. Compare clinical pregnancy rate, live birth delivery rate, ectopic pregnancy rate, abortion rate, preterm birth rate and fetal malformation rate between the two groups.

Results: (1) There was no statistically significant difference in patient age, years of infertility, basal FSH value, Gn dosage, oocyte number in fresh cycles and number of embryos transferred between the two groups. (2) The fertilization, cleavage, and good quality embryo rates were higher in the embolization group than the control group (76.3% vs. 72.9%, P = 0.006; 97.2% vs. 95.3%, P = 0.004; and 24.8% vs. 20.6%, P = 0.001); the abortion rate in the embolization group was significantly lower than the control group (2.3% vs. 7.8%, P = 0.01). Clinical pregnancy (38.5% vs. 37.8%, P = 0.86), live birth delivery (33.3% vs. 28.7%, P = 0.24), ectopic pregnancy (2.3% vs. 1.4%, P = 0.42), and preterm birth rates (20.7% vs. 21.5%, P = 0.90) were not significantly different between the two groups, and the tube embolization technique did not increase the incidence of fetal malformations.

Conclusions: (1) Tubal embolization does not affect the clinical pregnancy rate of in vitro fertilization-embryo transfer, what is more is it reduce the abortion rate. (2) Tubal embolization is a safe and effective method and worthy of clinical application.

Dose not affect pregnancy rate, decrease abortion rate
Fallopian Tube Embolization

- 2 Hospitals
- 22 patients
- (18 women’s with secondary infertility)
- 38 yrs old
- 3 patients with endometriosis
Fallopian Tube Embolization

- all in single session
- OP
- Detachable or pushable coils
- 3 patients misplaced coils corrected during the procedure
Fallopian Tube Embolization

- 1 patient expelled the coils
- IVF-ET with pregnancy rate seen in 2 patients (out of 21 patients) (2 attest)
- 2 yrs F/U
Fallopian Tube Embolization

Conclusion

• alternative to surgical ligation
• minimally invasive
• need more patients to conclude on this technique
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