

**İN VİTRO FERTİLİZASYON
ÖNCESİ OFİS HİSTEROSKOPI
BULGULARININ DEĞERLENDİRİLMESİ**

Yazar

Dr. Ayşe Çiğdem BAYRAK ÖZTÜRK



© Copyright 2025

Bu kitabın, basım, yayım ve satış hakları Akademisyen Kitabevi A.Ş.'ye aittir. Anılan kuruluşun izni alınmadan kitabın tümü ya da bölümleri mekanik, elektronik, fotokopi, manyetik kağıt ve/veya başka yöntemlerle çoğaltılamaz, basılamaz, dağıtılamaz. Tablo, şekil ve grafikler izin alınmadan, ticari amaçlı kullanılamaz. Bu kitap T.C. Kültür Bakanhğı bandrolü ile satılmaktadır.

Bu kitapta yer alan fikirler ve düşünceler yazara ait olup, hiçbir kurum veya kuruluşun görüşünü yansıtmamaktadır. Bu kitap, "İn Vitro Fertilizasyon Öncesi Ofis Histeroskopi Bulgularının Değerlendirilmesi" adlı doktora tezinden üretilmiştir.

ISBN

978-625-375-653-6

Kitap Adı

İn Vitro Fertilizasyon Öncesi Ofis
Histeroskopi Bulgularının
Değerlendirilmesi

Editör

Serdar DİLBAZ
ORCID iD: 0000-0001-9542-2799

Yazar

Ayşe Çiğdem BAYRAK ÖZTÜRK
ORCID iD: 0000-0003-1547-3663

Yayın Koordinatörü

Yasin DİLMEN

Sayfa Tasarımı

Akademisyen Dizgi Ünitesi

Kapak Tasarımı

Prof. Dr. Fahrettin GEÇEN

Yayıncı Sertifika No

47518

Baskı ve Cilt

Vadi Matbaacılık

Bisac Code

MED033000

DOI

10.37609/akya.25

Kütüphane Kimlik Kartı

Bayrak Öztürk, Ayşe Çiğdem.

İn Vitro Fertilizasyon Öncesi Ofis Histeroskopi Bulgularının Değerlendirilmesi / Ayşe Çiğdem

Bayrak Öztürk; ed. Serdar Dilbaz

Ankara : Akademisyen Yayınevi Kitabevi, 2025.

79 s. : şekil, tablo. ; 135x210 mm.

Kaynakça var.

ISBN 9786253756536

GENEL DAĞITIM
Akademisyen Kitabevi A.Ş.

Halk Sokak 5 / A
Yenişehir / Ankara
Tel: 0312 431 16 33
siparis@akademisyen.com

www.akademisyen.com

İÇİNDEKİLER

1. GİRİŞ VE AMAÇ	1
2. GENEL BİLGİLER	5
2.1. ERKEK İNFERTİLİTESİ.....	7
2.2. KADIN İNFERTİLİTESİ.....	8
2.2.1. Ovulatuar Disfonksiyon	8
2.2.2. Tubal ve Pelvik Patolojiler.....	10
2.3. AÇIKLANAMAYAN İNFERTİLİTE	11
2.4. YARDIMCI ÜREME TEKNİKLERİ	12
2.4.1. Ovulasyon İndüksiyonu.....	15
2.5. Endometrial Reseptivite ve İmplantasyon.....	16
2.6. İntrauterin Patolojiler ve Reseptivite İle İlişkileri.....	17
2.6.1. Endometrial Polip ve Reseptivite İle İlişkisi.....	19
2.6.2. Submukozal Myomlar ve Reseptivite İle İlişkileri.....	20
2.6.3. Uterin Septum – Arkuatus ve Gebelik Sonuçlarına Etkisi	21
2.6.3. Uterin Sineşi ve Gebelik Sonuçları İle İlişkisi	22
2.7. Histeroskopi.....	24
2.7.1. Genel Bilgiler, Özellikleri ve Tarihçesi.....	24
2.7.2. Histeroskopiye Kullanılan Aletler	29
2.7.3. İntrauterin Patolojileri Saptamada Ofis Histeroskopi ve Diğer Yöntemler.....	36
2.7.4. Histeroskopi ve Endometrial Hasar Teorisi	40
3. GEREÇ VE YÖNTEM	45
3.1. Histeroskopiye Kullanılan Aletler	46
3.2. İstatistik.....	47
4. BULGULAR	49
5.TARTIŞMA.....	57
KAYNAKLAR	66

KISALTMALAR

AFC	: Antral Folikül Sayısı
AFS	: American Fertility Society
CO ₂	: Karbondioksit
COX-2	: Siklo-oksijenaz 2
DSÖ	: Dünya Sağlık Örgütü
E2	: Östradiol
EGF	: Epidermal Büyüme Faktörü
EPF	: Erken Gebelik Faktörü
FIGO	: The International Federation of Gynecology and Obstetrics
FGF	: Fibroblast Büyüme Faktörü
FSH	: Folikül Uyarıcı Hormon
GIFT	: Gamet Intrafallopian Transfer
GnRH	: Gonadotropin Releasing Hormon
HBGFL-GF	: Heparin Bağlayıcı Endotelial Büyüme Faktörüne Benzeyen Büyüme Faktörü
hCG	: İnsan Koryonik Gonadotropini
HMG	: Human Menopozal Gonadotropin
HSG	: Histerosalpingografi
ICSI	: İntrastoplazmik Sperm Enjeksiyonu
IFN- α	: İnterferon-Gama
IGF1-2	: İnsülin Benzeri Büyüme Faktörü 1 ve 2
IL-1	: İnterlökin 1
IL-11	: İnterlökin 11
IL-6	: İnterlökin 6
IU	: İnternasyonal Ünite
IUI	: İntrauterin İnseminizasyon
IVF-ICSI/ET	: İn Vitro Fertilizasyon
KOH	: Kontrollü Ovaryan Hiperstimulasyon
L	: Litre

Kısaltmalar

LAZER	: Light Amplification by the Stimulated Emission of Radiation
LH	: Lüteinizan Hormon
LIF	: Lösemi İnhibitör Faktör
mEq	: Miliequvalan
Nd-YAG	: Neodymium-Yttrium-Aluminum-Garnet
OHSS	: Ovaryan Hipersitimülasyon Sendromu
PAF	: Platelet Aktive Edici Faktör
PDGF	: Platelet Kaynaklı Büyüme Faktörü
PG	: Prostaglandin
PGD	: Preimplantasyon Genetik Tanı
RIA	: Rahim İçi Araç
RR	: Rölatif Risk
SD	: Standart Sapma
SIS	: Salin İnfüzyon Sonografisi
SPSS	: Statistical Package for the Social Sciences
TGF- β	: Transforme Edici Büyüme Faktörü Beta
TİB	: Tekrarlayan İmplantasyon Başarısızlığı
TNF- α	: Tümör Nekroz Faktörü-Alfa
TVUSG	: Transvajinal Ultrasonografi
VEGF	: Vasküler Endotelial Büyüme Faktörü
VKİ	: Vücut Kitle İndeksi
WHO	: World Health Organization
YÜT	: Yardımcı Üreme Teknikleri
ZIFT	: Zigot İntrafallopian Transfer

KAYNAKLAR

1. Mosher WD, Pratt WF. Fecundity and infertility in the United States: incidence and trends *Fertil Steril* 1991; 56:192.
2. Hacettepe University Institute of Population Studies (2004), 2003 *Turkey Demographic and Health Survey*, HUIPS, Ankara.
3. Speroff L, Glass NH, Kase RG. *Clinical Gynecologic Endocrinology and Infertility*, 7th edition. 2005 : 1215-74.
4. European Society of Human Reproduction and Embryology (ESHRE). The European IVF- monitoring programme (EIM), for ESHRE. Assisted reproductive technology in Europe, 1988. Results generated from European Registers by ESHRE. *Human Reprod*, 2001;16:2459.
5. Demirel A, Gurgan T, Effect of treatment of intrauterine pathologies with Office hysteroscopy in patients with recurrent IVF failure. *Reproductive Biomedicine Online*, 2004; Vol 8 No:5 590-594.
6. Feghali J, Bakar J, Mayenga JM, Se'gard L, Hamou J, Driguez P, Belaisch-Allart J. Systematic hysteroscopy prior to in vitro fertilization. *Gynecol Obstet Fertil* 2003;31:127-131.
7. Filomenamila Lorusso, Oronzo Ceci, Stefano Bettocchi, Giuseppina Lammanna, Alfredo Costantino, Giuseppe Serrati, Raffaella Depalo, Office hysteroscopy in an in vitro fertilization program; *Gynecological Endocrinology*, 24:8,465-469.
8. Comparison of hydrosalpingography and diagnostic hysteroscopy in the evaluation of infertile patients. Yucebilgin MS, Aktan E, Bozkurt K, Kazandi M, Akercan F, Mgoyi L, Terek MC. *Clin Exp Obstet Gynecol*. 2004;31(1):56-8.
9. Prevedourakis C, Loutradis D, Kallianidis C, Makris N, Aravantinos D. Hysterosalpingography and hysteroscopy in female infertility. *Hum Reprod*. 1994;9 (12):2353-5.
10. Bozdag G, Aksan G, Esinler I, Yarali H. What is the role of office hysteroscopy in women with failed IVF cycles? *Reprod Biomed Online*. 2008 Sep;17(3):410-5.
11. Bettocchi S, Nappi L, Ceci O, Pontrelli G, Pinto L, Selvaggi L. Hysteroscopy and menopause: past and future. *Curr Opin Obstet Gynecol*. 2005 Aug;17(4):366-75.
12. Clark TJ. Outpatient hysteroscopy and ultrasonography in the management of endometrial disease. *Curr Opin Obstet Gynecol*. 2004 Aug;16(4):305-11.
13. G. A. Rama Raju, G. Shashi Kumari. Assessment of uterine cavity by hysteroscopy in assisted reproduction programme and its influence on pregnancy outcome *Arch Gynecol Obstet* (2006) 274:160-164.
14. Nicola Doldi, Paola Persico, Francesca Di Sebastiano, Elena Marsiglio, Lucia De Santis, Elisa Rabellotti, Francesco Fusi, Claudio Brigante, Au-

- gusto Ferrari. Pathologic findings in hysteroscopy before in vitro fertilization-embryo transfer (IVF-ET), *Gynecological Endocrinology*, October 2005; 21(4): 235–237.
15. Filomenamila Lorusso, Oronzo Ceci, Stefano Bettocchi, Giuseppina Lammanna, Alfredo Costantino, Giuseppe Serratì, Raffaella Depalo. Office hysteroscopy in an in vitro fertilization program; *Gynecological Endocrinology*, 24:8, 465— 469.
16. Haimov-Kochman R, Sciaky-Tamir Y, Hurwitz A. Reproduction concepts and practices in Egypt mirrored by modern medicine. *Eur J Obstet Gynecol Reprod Biol*. 2005; 123:3-8.
17. Speroff L, Glass NH, Kase RG. *Clinical Gynecologic Endocrinology and Infertility*, 7th edition. 2005 :1013-67.
18. Leon Speroff, Marc A. Fritz, Lippincott Williams. (2005) *Clinical Gynaecologic Endocrinology and Infertility, Seventh Edition*. Lippincott Williams and Wilkins. Philadelphia, p. 1013-67.
19. Dubuisson JB, Bouquet de Joliniere J, Aubriot FX, Darai E, Foulot H, Mandelbrot L. Terminal tuboplasties by laparoscopy: 65 consecutive cases. *Fertil Steril* 1990; 54:401-3.
20. Strandell A, Lindhard A. Why does hydrosalpinx reduce fertility? The importance of hydrosalpinx fluid. *Hum Reprod* 2002; 17:1141-5.
21. Forti G, Krausz C. Evaluation and treatment of the infertile couple. *J of Clinical Endocrinology and Metabolism*, 1998; 83(129), p. 4177-4188.
22. Speroff L, Glass N. H. Kase R.G. *Clinical Gynaecologic Endocrinology and Infertility*. 7nd edition. 2007: 84, 171, 213, 236, 1013, 1026, 1142, 1143, 1075, 1097, 1133.
23. Mascarenhas MN, Flaxman SR, Boerma T, Vanderpoel S, Stevens GA. National, regional, and global trends in infertility prevalence since 1990: a systematic analysis of 277 health surveys. *PLoS Med*. 2012;9(12):e1001356.
24. Centers for Disease Control and Prevention ASfRM, Society for Assisted Reproductive Technology. 2013 Assisted Reproductive Technology National Summary Report. Atlanta (GA): US Dept of Health and Human Services; 2015.: 2015.
25. Centers for Disease Control and Prevention, American Society for Reproductive Medicine, Society for Assisted Reproductive Technology. 2012.
26. Bongso A. *Handbook on Blastocyst Culture*, Sydney Press Indusprint (S) Pte Ltd, Singapore 1999;13,21.
27. Collins JL. A turbulent arena. *Fertil Steril*, 2003;80:1117.
28. Filicori M, Cognigni GE, Pocognoli P, Ciampaglia W. Choice of ovarian stimulation regimens in assisted reproduction: finding the thread in the gonodotropin maze. *Fertil Steril*, 2003;80:1114.
29. Schwartz D, Mayaux MJ, Female Fecundity as a function of age: results of artificial insemination in 2193 nulliparous women with azoospermic

- husbands. *Federation CECOS, New Engl J Med* 306:404, 1982.
30. Munne S, Alikani M, Tomkin G, et al. Embryo morphology, developmental rates, and maternal age are correlated with chromosome abnormalities. *Fertil Steril*, 1995;64:382-391.
31. Achache H, Revel A. Endometrial receptivity markers, the journey to successful embryo implantation. *Hum Reprod update*. 2006;12(6):731-46.
32. Noyes R, Hertig A, Rock J. Dating the endometrial biopsy. *Obstet Gynecol Surv*. 1950;5(4):561-4.
33. Wang L, Qiao J, Li R, Zhen X, Liu Z. Role of endometrial blood flow assessment with color Doppler energy in predicting pregnancy outcome of IVF-ET cycles. *Reprod Biol Endocrinol*. 2010;8(1):122.
34. Simon C, Martin JC, Pellicer A. Paracrine regulators of implantation. *Best Pract Res Clin Obstet Gynecol*. 2000;14(5):815-26.
35. Simon C, Morene C, Remohi j, Pellice A. Cytokines and embryo implantation. *Journal of reproductive immunology*. 1998;39(1):117-31.
36. Ledee-Bataille N, Lapree-Delage G, Taupin J-L, Dubanchet S, Frydman R, Chauat G. Concentration of leukaemia inhibitory factor (LIF) in uterine flushing fluid is highly predictive of embryo implantation. *Hum Reprod*. 2002;17(1):213-8.
37. Singh M, Chaudhry P, Asselin E. Bridging endometrial receptivity and implantation: Network of hormones, cytokines, and growth factors. *J Endocrinol* 2011; 3.
38. Karayalcin R, Ozcan S, Moraloglu O, Ozyer S, Mollamahmutoglu L, Batioglu S. Results of 2500 office-based diagnostic hysteroscopies before IVF-ICSI/ET. *Reprod Biomed Online*. 2010; 20:689-93.
39. Cogendez E, Soguktas S. Đnfertil hastalarda diagnostik histeroskopinin rutin kullanımı. *Z. Kamil Tip Bulteni* 2008;3 (3) 111-15.
40. Shushan A, Rojansky N. Should hysteroscopy be a part of the basic infertility workup? *Hum Reprod* 2000;7: 1650.
41. Lin PC, Bhatnagar KP, Nettleton GS, Nakajima ST. Female genital anomalies affecting reproduction. *Fertil Steril* 2002; 78:899.
42. Oppelt P, von Have M, Paulsen M, et al. Female genital malformations and their associated abnormalities. *Fertil Steril* 2007; 87:335.
43. Rice JP, London SN, Olive DL: Reevaluation of hysterosalpingography in infertility investigation. *Obstet Gynecol* 67:718, 1986.
44. Soares, S., Barbosa dos Reis, M., & Camargos, A. (2000). Diagnostic accuracy of sonohysterography, transvaginal sonography, and hysterosalpingography in patients with uterine cavity diseases. *Fertil Steril* 73:406.
45. Blank B. *Endometrial polyps*. In: Blanc B, Marty R, de MontgolWer R (eds) *Office and operative hysteroscopy*, Springer, Heidelberg, 2002:173.
46. Rackow BW, Jorgensen E, Taylor HS. Endometrial polyps affect uterine receptivity. *Fertil Steril*. 2011; 24.

47. Richlin SS, Ramachandran S, Shanti A, Murphy AA, Parthasarathy S. Glycodelin levels in uterine flushings and in plasma of patients with leiomyomas and polyps: implications for implantation. *Human Reproduction* 2002; 17:2742-2747.
48. Stamatellos I, Apostolides A, Stamatopoulos P, Bontis J. Pregnancy rates after hysteroscopic polypectomy depending on the size or number of the polyps. *Arch Gynecol Obstet* 2008; 277:395-9.
49. Psychoyos A. Uterine receptivity for nidation. *Ann N Y Acad Sci* 1986; 476:36-42.
50. Practice Committee of the American Society for Reproductive. Medicine Myomas and reproductive function. *Fertil Steril* 2004; 82:111-116.
51. Wamsteker K, EmanuelMH, Kruif JH. Transcervical hysteroscopic resection of submucous fibroids for abnormal uterine bleeding: results regarding the degree of intramural extension. *Obstet Gynecol* 1993; 82:736-40.
52. Rackow BW, Taylor HS. Submucosal uterine leiomyomas have a global effect on molecular determinants of endometrial receptivity. *Fertil Steril* 2010; 93:2027-34.
53. Shokeir TA. Hysteroscopic management in submucous fibroids to improve fertility. *Arch Gynecol Obstet* 2005; 273:50-4.
54. Acien P. Incidence of Mullerian defects in fertile and infertile women. *Hum Reprod* 1997; 12:1372- 1376.
55. Pellicer A. Shall we operate on Mullerian defects? An introduction to the debate. *Hum Reprod* 1997; 12:1371-1372.
56. Burchell RC, Creed F, Rasoulpour M, Whitcomb M. Vascular anatomy of the human uterus and pregnancy wastage. *Br J Obstet Gynaecol* 1978; 85:698-706.
57. Speroff L, Glass RH, Kase NG. *Female infertility*. In: Speroff L, Fritz MA (eds) Clinical gynecologic endocrinology and infertility, 7th edn. Lippincott Williams and Wilkins, Philadelphia PA, 2005:1013- 1067.
58. Tomažević T, Ban- Frangež H, Virant-Klun I, Verdenik I, Požlep B, Vrtačnik-Bokal E. Septate, subseptate and arcuate uterus decrease pregnancy and live birth rates in IVF-ICSI/ET/ICSI. *Reprod Biomed Online* 2010; 21:700-5.
59. Grimbizis GF, Camus M, Tarlatzis BC, Bontis JN, Devroey P. Clinical implications of uterine malformations and hysteroscopic treatment results. *Hum Reprod Update* 2001;7:161-74.
60. Homer HA, Li TC, Cooke ID. The septate uterus: a review of management and reproductive outcome. *Fertil Steril*. 2000; 73:1-14.
61. Berman JM. Intrauterine adhesions *Semin Reprod Med*. 2008; 26: 349-55.
62. Kodaman PH, Arici A. Intra-uterine adhesions and fertility outcome: how to optimize success? , *Curr Opin Obstet Gynecol* 2007; 19:207-14.

63. Berman JM. Intrauterine adhesions. *Semin Reprod Med* 2008; 26:349-55.
64. Sharma JB, Roy KK, Pushparaj M, Kumar S. Hysteroscopic findings in women with primary and secondary infertility due to genital tuberculosis. *Int J Gynaecol Obstet.* 2009; 104:49-52.
65. Netter A, Musset R, Lambert A, Salomon Y, Montbaret G. Tuberculous endo-uterine symphysis; an anatomo-clinical and radiologically characteristic syndrome. *Gynecol Obstet.* 1955; 54: 19.
66. Salzani A, Yela DA, Gabiatti JR, Bedone AJ, Monteiro IM. Prevalence of uterine synechia after abortion evacuation curettage Sao Paulo Med J. 2007;125: 261- 4.
67. Roy KK, Baruah J, Sharma JB, Kumar S, Kachawa G, Singh N. Reproductive outcome following hysteroscopic adhesiolysis in patients with infertility due to Asherman's syndrome. *Arch Gynecol Obstet* 2010; 281:355-61.
68. Pabuçu R, Atay V, Orhon E, Urman B, Ergün A. Hysteroscopic treatment of intrauterine adhesions is safe and effective in the restoration of normal menstruation and fertility, *Fertil Steril.* 1997; 68:1141-3.
69. Rafael FV. Manual of Clinical Hysteroscopy, Second Edition, Hardcover, 2005:1-7.
70. Font-Sastre V, Carabias J, Bonilla-Musoles F, Pellicer A. Office hysteroscopy with small caliber instruments. *Acta Eur Fertil* 1986; 17:427-429.
71. Rubin C, Uterin endoscopy: endometroscopy with the aid of uterine insufflation. *Am J Obstet Gynaecol*, 10:313,1925.
72. Fourestier M, Gladu A, Vulmiere J, Perfection nements de l' endoscope medicale . *Presse Med*, 60.1292,1952.
73. Palmer R, Un nouvel Hysteroscope. *Bull Fed Soc Gynaecol Obstet Franc*, 9:300,1957.
74. Levine RU, Neuwirth RS, Simultaneous laparoscopy and hysteroscopy for intrauterine adhesions. *Obstet Gynaecol*, 1980;50:760-62.
75. Bradley L, Falcone, T. Hysteroscopy: office evaluation and management of the uterine cavity, Royal College of Obstetricians and Gynaecologists 2008; 35.
76. De Placido G, Clarizia R, Cadente C, Castaldo G, Romano C, Mollo A, Alviggi C, Conforti S. Compliance and diagnostic efficacy of mini-hysteroscopy versus traditional hysteroscopy in infertility investigation, *Eur J Obstet Gynecol Reprod Biol* 2007; 135:83-7.
77. Pluchino N, Ninni F, Angioni S, Artini P, Araujo VG, Massimetti G, Genazzani AR, Cela V. Office vaginoscopic hysteroscopy in infertile women: effects of gynecologist experience, instrument size, and distention medium on patient discomfort. *J Minim Invasive Gynecol* 2010; 17:344-50.
78. Günalp S, Yüce K. Temel Kadın Hastalıkları ve Doğum Bilgisi, Üçüncü Baskı, 2014; 47:516-528.
79. Shapiro BS. Instrumentation in hysteroscopy. *Obstet Gynecol Clin North Am* 1988; 15:13-21.

80. American Collage of Obstetricians and Gynecologists. Hysteroscopy. ACOG Technical Bulletin Number 191- April 1994. *Int J Gynaecol Obstet* 1994; 45: 175-180.
81. Cooper JM, Brady RM. Late complications of operative hysteroscopy. *Obstet Gynecol Clin North Am* 1999; 26:217-236.
82. Propst AM, Liberman RE, Harlow BL, Ginsburg ES. Complications of hysteroscopic surgery: predicting patients at risk. *Obstet Gynecol* 2000; 96:517-520.
83. Brill A. Energy systems for operative hysteroscopy. *Obstet Gynecol Clin North Am* 2000; 27:317-326.
84. Luciano AA. Power sources. *Obstet Gynecol Clin North Am* 1995; 22:423-443.
85. Imasogie N, Crago R, Leyland NA, ve ark. (2002). Probable gas embolism during operative hysteroscopy caused by products of combustion. *Can J Anaesth*.Dec;49(10):1044-7.
86. Ryten-Alder E, Brundin J, Notini -Gundermarsson A,ve ark. (1992). De- tectons of carbondioxide embolism during hysteroscopy. *Gynecol Endoscopy*. 1:207-10.
87. Marlow JL. Media and delivery systems. *Obstet Gynecol Clin North Am* 1995; 22:409-422.
88. Karayalcin R, Ozyer S, Ozcan S, Uzunlar O, Gurlek B, Moraloglu O, Batioglu S. Office hysteroscopy improves pregnancy rates following IVF-IC- SI/ET. *Rep Bio Med Online* 2012; 25: 261-266.
89. Gimpelson RJ. Office hysteroscopy. *Clin Obstet Gynecol* 1992; 35:270-281.
90. Clark, TJ, Voit, D, Gupta, JK, et al. Accuracy of hysteroscopy in the diagnosis of endometrial cancer and hyperplasia: a systematic quantitative review. *JAMA* 2002; 288:1610.
91. Golan A, Ron-El R, Herman A. Diagnostic hysteroscopy its value in an in-vitro fertilization/embryo transfer unit. *Hum Reprod* 1992; 7:1433-1434.
92. Doldi N, Persico P, Sebastiano DJ, Marsiglio E, De Santis L, Rebellotti E, Fusi F, Brigante C, Ferrari A. Pathologic findings in hysteroscopy before in vitro fertilization-embryo transfer (IVF-ICSI/ET-ET). *Gynecol Endocrinol* 2005; 21:235-237.
93. Varasteh NN, Neuwirth RS, Levin B, Keltz MD. Pregnancy rates after hysteroscopic polypectomy and myomektomy in infertile women. *Obstet Gynecol* 1999; 94:168-171.
94. Batioglu S, Kaymak O. Does hysteroscopic polypectomy without cycle cancellation affect IVF- ICSI/ET? *Reprod Biomed Online* 2005; 10:767-769.
95. Shoham Z, Di Carlo C, Patel A, Conway GS, Jacobs HS. Is it possible to run a successful ovulation induction program based solely on ultrasound

- monitoring? The importance of endometrial measurements. *Fertil Steril* 1991; 56:836-41.
96. Mitwally MF, Casper RF. Use of an aromatase inhibitor for induction of ovulation in patients with an inadequate response to clomiphene citrate. *Fertil Steril*. 2001;75:305-309.
97. Donnez J, Jadoul P. What are the implications of myomas on fertility? A need for a debate? *Hum Reprod* 2002; 17:1424-1430.
98. Pritts EA. Fibroids and fertility: a systematic review of the evidence. *Obstet Gynecol Surv* 2001; 56:483-491.
99. Friedler S, Margalioth EJ, Kafka I, Yaffe H. Incidence of post- abortion intrauterin adhesions evaluated by hysteroscopy a prospective study. *Hum Reprod* 1993; 8:442-444.
100. Broome JD, Vancaille TG. Fluoroscopically guided hysteroscopic division of adhesions in severe Asherman syndrome. *Obstet Gynecol* 1999; 71:219-222.
101. Taylor E, Gomel V. The uterus and fertility. *Fertil Steril* 2008; 89:1-16.
102. Mollo A, De Franciscis P, Colacurci N, Cobellis L, Perino A, Venezia R. Hysteroscopic resection of the septum improves the pregnancy rate of women with unexplained infertility: a prospective controlled trial. *Fertil Steril* 2009; 91:2628-2631.
103. El-Nashar IH, Nasr A. The role of hysteroscopy before intracytoplasmic sperm injection (ICSI): a randomized controlled trial. *Ferti Steril* 2011; 96:15-282.
104. Trninić-Pjević A, Kopitović V, Pop-Trajković S, Bjelica A, Bujas I, Tabs D, Ilić D, Stajić D. Effect of hysteroscopic examination on the outcome of in vitro fertilization. *Vojnosanit Pregl* 2011; 68:476-480.
105. Yeung YWT, Chai J, Hang Wun Li R, Lee VCY, Ho PC, Yu Ng EH. The effect of endometrial injury on ongoing pregnancy rate in unselected subfertile omen undergoing in vitro fertilization: a randomized controlled trial. *Hum Reprod* 2014; 11:2474-2481.
106. Margalioth EJ, Ben-Chetrit A, Gal M. Investigation and treatment of repeated implantation failure following IVF-ICSI/ET-ET. *Hum Reprod* 2006; 21:3036-3043.
107. Barash A, Dekel N, Fieldust S, Segal I, Schechtman E, Granot I. Local injury of the endometrium doubles the incidence of succesful pregnancies in patients undergoing in-vitro fertilization, *Fertil Steril* 2003; 79:1317-1322.
108. Raziel A, Schachter M, Strassburger D, Berno O, Ron-El R, Friedler S. Favorable influence of local injury to the endometrium in intracytoplasmic intracytoplasmicsperm injection patients with high-order implantation failure. *Fertil Steril* 2007; 87:198-20.
109. Narvekar SA, Gupta N, Shetty N, Kottur A, Srinivas M, Rao KA. Does

- local endometrial injury in the nontransfer cycle improve the IVF-ICSI/ET-ET outcome in the subsequent cycle in patients with previous unsuccessful IVF-ICSI/ET? A randomized controlled pilot study. *J Hum Reprod Sci* 2010; 3:15- 9.
110. Office hysteroscopy in an in vitro fertilization program Gynecol Endocrinol. Lorusso F, Ceci O, Bettocchi S, Lamanna G, Costantino A. 2008 Aug;24(8):465-9.
- 111 . Pundir J, Pundir V, Omanwa K, Khalaf Y, El-Toukhy T. Hysteroscopy prior to the first IVF- ICSI/ET cycle: A systematic review and meta- analysis. *Rep Bio Med Online* 2014; 28:151-161.
112. The role of diagnostic hysteroscopy before the first in vitro fertilization/ intracytoplasmic sperm injwction cycle. Hsing-Tse Yu, Chin -Jung Wang, Chyi-Long Lee,Hong-Yuan Huang, Chun-Kai Chen.Archives of gynecology and obstetrics 286(5),1323-1328, 2012.