

DOI: 10.13241/j.cnki.pmb.2014.05.038

宫腔镜联合腹腔镜在女性不孕症诊治中的应用

李凤玲 谭慧珍 何浏铭 李婉梅 韦催愿

(广西钦州市妇幼保健院妇科 广西 钦州 535000)

摘要 目的:探讨宫腔镜联合腹腔镜在女性不孕诊断及治疗中的临床应用价值。**方法:**回顾性分析 60 例我院收治的采用宫腔镜联合腹腔镜进行诊断和治疗的女性不孕症患者为研究对象,对其临床资料进行分析。**结果:**宫腔镜联合腹腔镜检查发现,60 例不孕症患者中,56.7% 的患者患有慢性盆腔炎,16.7% 的患者为子宫内膜异位症,11.7% 的患者为多囊卵巢综合征;单纯腹腔镜检查的阳性检出率为 60.0%,单纯宫腔镜检查的阳性检出率为 28.3%,宫腔镜联合腹腔镜检查的阳性检出率高达 91.7%,宫腔镜联合腹腔镜检查阳性发现率明显高于前二者($P < 0.05$)。治疗前,双侧不通、一侧通畅和双侧输卵管通畅的患者分别为 38.3%、48.3% 和 13.3%,经宫腔镜联合腹腔镜治疗后分别为 11.7%、50.0% 和 38.3%,差异均有统计学意义($P < 0.05$)。34 例原发性不孕患者,术后 13 例妊娠,妊娠率 38.2%;26 例继发性不孕患者,术后 15 例妊娠,妊娠率 57.7%;总妊娠率为 46.7%,其中宫外孕 2 例。**结论:**宫腔镜联合腹腔镜检查可帮助明确女性不孕症患者明确原因及发病部位,并可针对病因进行治疗,提高女性不孕症的病因诊断准确率及治愈率。

关键词:宫腔镜;腹腔镜;不孕;妊娠

中图分类号:R713.7 **文献标识码:**A **文章编号:**1673-6273(2014)05-937-03

Application of Hysteroscopy Combined with Laparoscopy in the Diagnosis and Treatment of Infertilitas Female

LI Feng-ling, TAN Hui-zhen, HE Liu-ming, LI Wan-mei, WEI Cui-yuan

(Department of Gynecological, Maternal and Child Health Hospital of Qinzhou, Qinzhou, Guangxi, 535000, China)

ABSTRACT Objective: To evaluate the clinical value of hysteroscopy combined with laparoscopy in the diagnosis and treatment of female infertility. **Methods:** 60 cases of female infertility patients were diagnosed and treated by laparoscopy combined with hysteroscopy, and their clinical data were retrospectively analyzed. **Results:** By using laparoscopy combined with hysteroscopy, chronic pelvic diseases was the main reason of infertility. In the pelvic diseases, the common causes included pelvic adhesion(56.7%), endometriosis(16.7%) and polycystic ovary syndrome (11.7%). The diagnostic positive rate of laparoscopy was 60.0%, hysterosalpingography was 28.3%, whereas, laparoscopy combined with hysteroscopy was 91.7%, which was significantly higher than those in the laparoscopy or hysterosalpingography. Before treatment, bilateral obstruction was found in 38.3 % cases, unilateral obstruction was found in 48.3 % cases, 13.3 % cases were found to be unobstructed; after treatment by laparoscopy and hysterosalpingography, bilateral obstruction was found in 11.7 % cases, unilateral obstruction was found in 50.0 % cases, 38.3 % cases were found to be unobstructed, which were significant lower or higher than that before treatment ($P < 0.05$). All the patients received follow-up by 12 months, the pregnancy rate in secondary infertility patients was 57.7%, in primary infertility was 38.2%, and the total pregnancy rate was 46.7%. Out of these 28 patients, 26 patients were intrauterine and 2 were extrauterine. **Conclusion:** Laparoscopy combined with hysteroscopy was effective in confirming the causes of female infertility and the location of the pelvic disease. Besides, the method was one of preferred choice for female infertility, as the diseases can be treated immediately after the diagnosis and improved diagnose and cure rate for female infertility.

Key words: Hysteroscopy; Laparoscopy; Infertility; Pregnancy

Chinese Library Classification(CLC): R713.7 **Document code:** A

Article ID: 1673-6273(2014)05-937-03

女性不孕症是妇科常见病之一,近年来其发病率呈升高趋势,严重影响女性健康,我国女性不孕症的发病率为 3.5%~11.3%^[1-3]。确定病因是治疗不孕症的关键及首要任务,采用传统的诊断、治疗方法,往往不能及时、准确地找到病因,特别是对输卵管阻塞及包裹粘连性不孕亦没有很好的解决方法,从而

延误治疗^[4]。随着宫腔镜、腹腔镜技术在妇科临床的广泛应用,目前已成为诊断和治疗女性不孕症盆腔病变和宫腔病变的重要手段^[2,5-7],弥补了常规检查和治疗方法的局限性和不足,为诊治不孕症开辟了新途径。但单一宫腔镜或腹腔镜的检查存在一定的局限性,并发症的发生率也较高,而二者联合应用可以综合各自优势,诊疗效果好^[8]。本研究采用宫腔镜联合腹腔镜技术诊治女性不孕症,旨在探讨宫、腹腔镜联合诊治女性不孕症的价值,为提高不孕症的诊治成功率提供实验依据。

1 资料与方法

作者简介:李凤玲(1977-),女,本科,主治医师,研究方向:妇产科;
电话:13977771631, E-mail: l.i.u.212@163.com;
280086129@qq.com
(收稿日期:2013-05-30 接受日期:2013-06-21)

1.1 一般资料

选择因不孕症在本院行腹腔镜和宫腔镜联合检查的患者 60 例,其中原发性不孕 34 例,继发性不孕 26 例;年龄 22~43 岁,平均(30.2±10.6)岁,孕次 0~5 次,不孕时间 1~3 年。所有患者术前术后均行宫、腹腔镜下输卵管通液术,并且排除男性不孕因素,既往月经规律,监测有正常排卵,心、肺、肝、肾等脏器功能检查正常。

1.2 方法

月经干净后 3~7 天,术前冲洗阴道,患者取膀胱截石位,头低臀高,常规消毒后铺巾,在脐轮下经切口放入 10 mm Trocar 套管针,由此放入腹腔镜进行检查,根据检查情况做相应手术,恢复盆腔正常解剖结构,充分游离双侧输卵管;同时经宫颈插入宫腔镜,了解子宫形态、宫内膜性状及输卵管开口情况,宫腔镜检查可全面了解宫腔内情况,根据不同病变行不同手术治疗,术中以 5%葡萄糖为膨宫液,观察宫腔、子宫内膜、输卵管开口等有无异常情况。同时在腹腔镜观察下行输卵管插管通液检查,注入稀释美蓝液 50~100 mL,检查输卵管的通畅程度,手术结束后常规大量生理盐水冲洗盆、腹腔,并评估疗效。术后

常规抗感染治疗 3~5 天。

1.3 输卵管通畅度诊断标准

通畅:推注无阻力,宫腔内无反流,指示液在输卵管内充盈并经伞端溢出流畅;通而不畅:注入指示液压力较大,输卵管充盈,流过缓慢并局部膨胀,1 min 内未消失或染液流出呈细滴珠状;不通:注入指示液时阻力大,并全部返流,输卵管未充盈且伞端无指示液流出。

1.4 统计学分析

所得数据采用 SPSS 10.0 统计学软件进行数据分析,计数资料采用 χ^2 检验,计量资料组间比较采用 t 检验, $P<0.05$ 为差异有统计学意义。

2 结果

2.1 导致不孕症的原因

经宫、腹腔镜及病理明确诊断后,我们发现 60 例患者中有 56.7% 的患者患有慢性盆腔炎,16.7% 的患者为子宫内膜异位症,11.7% 的患者为多囊卵巢综合征。从结果可以看出,慢性盆腔炎是造成患者不孕的首要原因。见表 1。

表 1 不孕症病因分析

Table 1 Analysis on the causes of female infertility

Factor	Case(n)	Percentage(%)
Chronic pelvic inflammation	34	56.7
Endometriosis	10	16.7
Polycystic ovary syndrome	7	11.7
Fibroid;	2	3.3
Endometrial polyp	2	3.3
Intrauterine adhesion	2	3.3
Normal pelvic	3	5.0

2.2 不同方法的诊治结果

单纯腹腔镜检查的阳性检出率为 60.0%,单纯宫腔镜检查的阳性检出率为 28.3%,宫腹腔镜联合检查阳性检出率高达

91.7%,明显高于前二者($P<0.05$)。可见,宫腹腔镜联合可显著提高不孕症的检出率,见表 2。

表 2 宫腔镜和腹腔镜单独及联合应用诊断不孕症的阳性检出率比较

Table 2 Comparison of the positive rate of single or combined detection by laparoscopic and hysteroscopy in the diagnosis of infertility

Group	Case(n)	Positive rate(%)
Laparoscopic	36	60.0*
Hysteroscopy	17	28.3*
Laparoscopic combined with hysteroscopy	55	91.7

注: $P<0.05$ 与宫腹腔镜联合检查。

Note: $P<0.05$ compared with Laparoscopic combined with hysteroscopy.

2.3 宫腹腔镜联合应用治疗不孕症的结果

治疗前,双侧不通、一侧通畅和双侧输卵管通畅的患者百分率分别为 38.3%、48.3%和 13.3%,经宫腔镜联合腹腔镜治疗后分别为 11.7%、50.0%和 38.3%,差异均有统计学意义($P<0.05$),见表 3。术后 1 年内,34 例原发性不孕患者,术后 13 例妊娠,妊娠率 38.2%;26 例继发性不孕患者,术后 15 例妊娠,妊娠率 57.7%;总妊娠率为 46.7%,其中宫外孕 2 例。

3 讨论

引起女性不孕的原因非常复杂,往往由多因素造成,盆腔内输卵管、卵巢因素是不孕的主要因素^[11],了解不孕症患者的盆腔情况对不孕症的诊治有重要意义。临床上常用的诊断方法有子宫输卵管碘油造影、输卵管通液、基础体温测定、B 超监测排卵、诊断性刮宫等。各种检查方法均有其局限性,检查结果通

表3 宫腹腔镜联合应用治疗不孕症的结果

Table 3 The therapeutic effect of laparoscopic combined with hysteroscopy in the treatment of infertility

	obstructed	obstructed of unilateral	unobstructed
Pre-operation	23(38.3)	29(48.3)	8(13.3)
Postoperation	7(11.7)*	30(50.0)*	23(38.3)*

注: $P < 0.05$ 与治疗前比较。

Note: $P < 0.05$ compared with pre-operation.

常不大可靠,且费时较多,很多不孕症患者经长时间检查未能明确不孕原因^[12, 13]。

目前,在我国宫腔镜和腹腔镜手术已在临床广泛应用,使许多既往不能诊治的女性不孕症得以诊治。腹腔镜检查是诊断盆腔内病变最可靠的方法,主要对远端梗阻、输卵管外部粘连、盆腹腔其他病变有效,但单纯行腹腔镜诊治,术后可能因宫腔未得到相应治疗而仍然不孕。宫腔镜检查是诊断宫腔内病变的金标准,宫腔镜插管通液主要对输卵管近端阻塞有效,宫腔镜息肉切除术可提高不孕患者的生育能力^[14],但引起不孕的因素比较复杂,不孕患者常同时存在宫腔及盆腔多种病变,若仅采用腹腔镜或宫腔镜检查都会有漏诊,影响患者的最佳治疗时间及最终治疗效果。

宫腹腔镜联合检查能直接观察盆腔内输卵管的情况,了解其形态改变,粘连范围及梗阻部位,明确病因,准确诊断盆腔黏连,实现了两种微创手术的优势互补,弥补了单一腹腔镜或宫腔镜诊治的不足,降低了手术风险^[15],为术后提供了最佳受孕条件,并拓宽了内镜手术治疗不孕症的范围。宫腹腔镜联合检查已经成为诊治输卵管、盆腔、宫腔等不孕因素的最佳方法^[16, 17]。本研究结果显示,60例不孕症患者中,56.7%患者患慢性盆腔炎,16.7%患子宫内膜异位症,11.7%患多囊卵巢综合征,表明慢性盆腔炎是造成患者不孕的首要原因。单纯腹腔镜检查的阳性检出率为60.0%,单纯宫腔镜检查的阳性检出率为28.3%,而宫腹腔镜联合检查的阳性检出率高达91.7%,明显高于前二者,可见宫腹腔镜联合应用可显著提高不孕症的检出率,避免漏诊。

宫、腹腔镜联合手术不仅可查清盆腔和子宫情况,明确诊断,有效检查出不孕原因,并可在检查同时进行手术治疗,恢复宫腔、输卵管及卵巢的结构和功能,有利于术后卵子受精,使治疗更有针对性,解决诸多引起不孕的原因,能有效提高不孕患者妊娠率。据报道,子宫内膜异位症患者经腹腔镜术后妊娠率达82.68%^[18]。本研究结果显示,治疗前双侧不通、一侧通畅、双侧输卵管通畅的患者分别为38.3%、48.3%和13.3%,经宫腹腔镜联合治疗后分别为11.7%、50.0%和38.3%,输卵管的通畅率较治疗前显著提高。在宫腹腔镜联合检查的同时根据病变情况对伞端粘连者予以分离,恢复输卵管通畅,从而起到积极的治疗作用,对子宫输卵管造影不能发现的输卵管病变,也可以明确诊断,避免盲目通液的弊端。宫腔镜能直接观察子宫腔内情况,较精确地发现宫腔病变^[19],且腹腔镜的监护作用不易损伤输卵管,避免插管过深而导致穿孔的危险,保障了宫腔镜手术的安全,克服宫腔镜单一使用的局限性。本组研究的所有患者经宫腔镜、腹腔镜联合检查加治疗,术后随访1年,28例怀孕,妊娠率达46.7%,取得了较好的效果。

综上所述,宫腔镜、腹腔镜联合手术治疗不孕症既可有效检查出不孕原因,又可针对病因实施相应的微创手术治疗,手术成功率及术后妊娠率均得到了明显提高,且创伤小、手术时间短、恢复快、安全、疗效确切,有重要的临床应用价值,值得临床推广和应用。

参考文献(References)

- [1] Jia FL. Analysis on 528 cases of laparoscopy combined with hysteroscopy in female infertility treatment[J]. January, 2011, 17(1): 27-30
- [2] 王一波, 顾娟, 李德春. 子宫输卵管造影联合宫腹腔镜在输卵管性不孕诊治中的应用[J]. 现代生物医学进展, 2009, 9(18): 3493-3495
Wang Yi-bo, Gu Juan, Li De-chun. Study analysis of hysterosalpingograph combined with hysteroscope and laparoscope in diagnosing and treating female infertility[J]. Progress in Modern Biomedicine, 2009, 9(18): 3493-3495(In Chinese)
- [3] Li HJ. Hysteroscopy combined with laparoscopy in diagnosis and treatment of female infertility [J]. Am J Obstet Gynecol, 2007, 34(2): 101-104
- [4] Yue Jie. Obstetrics and Gynecology [M]. 7th edition, Beijing: People's Medical Publishing House, 2008: 351
- [5] Zhan Cai-fang. Clinical analysis of laparoscopy combined in diagnosis of infertility[J]. Journal of Medical Forum, 2011, 32(3): 62-63
- [6] Ji Jiang-hai, Sun Jin-bao, Wang Ji-yun, et al. Clinical study on female infertility cases performed under hysteroscopy combined with gasless laparoscopy [J]. Chinese Journal of Medicinal Guide, 2012, 14(10): 1745-1746
- [7] 谢秀敏, 郭丽璇, 陈晓敏, 等. 腹腔镜子宫切除术的临床效果及应用价值研究[J]. 现代生物医学进展, 2012, 12(14): 2727-2729
Xie Xiu-min, Guo Li-xuan, Chen Xiao-min, et al. The clinical effectiveness and value of laparoscopic hysterectomy [J]. Progress in Modern Biomedicine, 2012, 12(14): 2727-2729
- [8] Hou Hai-yan, Chen Xiao, Hu Chun-xiu, et al. Diagnosis of 880 cases of female infertility by hysteroscopy combined with laparoscopy[J]. Reproduction & Contraception, 2012, 32(6): 423-428
- [9] Naz T, Hassan L, Gulmeen, et al. Laparoscopic evaluation in infertility [J]. J Coll Physicians Surg Pak, 2009, 19(11): 704-707
- [10] Verhoeve HR, Steures P, Flierman PA, et al. History of induced abortion and the risk of tubal pathology [J]. Reprod Biomed Online, 2008, 16(2): 304-307
- [11] 张慧琴, 尹亚童, 冷延华. 探讨腹腔镜与子宫输卵管造影诊断女性不孕的临床价值[J]. 现代生物医学进展, 2010, 10(23): 4565-4567
Zhang Hui-qin, Yin Ya-tong, Leng Yan-hua. Clinical significance of laparoscopy and hysterosalpingography in diagnosing female infertility[J]. Progress in Modern Biomedicine, 2010, 10(23): 4565-4567

(下转第936页)

- mortality associated with endovascular treatment of intracranial aneurysms[J]. *AJNR Am J Neuroradiol*, 2005, 26(3):506-514
- [4] Doerfler A, Wanke I, Egelhof T, et al. Aneurysmal rupture during embolization with Guglielmi detachable coils: causes, management, and outcome[J]. *AJNR Am J Neuroradiol*, 2001, 22(10):1825-1832
- [5] Halbach VV, Higashida RT, Dowd CF, et al. Management of vascular perforations that occur during neurointerventional procedures[J]. *AJNR Am J Neuroradiol*, 1991, 12(2):319-327
- [6] Houkin K, Kuroda S, Takahashi A, et al. Intra-operative premature rupture of the cerebral aneurysms. Analysis of the causes and management[J]. *Acta Neurochir (Wien)*, 1999, 141(12):1255-1263
- [7] Cho YD, Lee JY, Seo JH, et al. Early recurrent hemorrhage after coil embolization in ruptured intracranial aneurysms [J]. *Neuroradiology*, 2012, 54(7):719-726
- [8] Brilstra EH, Rinkel GJ, van der Graaf Y, et al. Treatment of intracranial aneurysms by embolization with coils: a systematic review[J]. *Stroke*, 1999, 30(2):470-476
- [9] Sluzewski M, van Rooij WJ. Early rebleeding after coiling of ruptured cerebral aneurysms: incidence, morbidity, and risk factors [J]. *AJNR Am J Neuroradiol*, 2005, 26(7):1739-1743
- [10] Corot C, Perrin JM, Belleville J, et al. Effect of iodinated contrast media on blood clotting[J]. *Invest Radiol*, 1989, 24(5):390-393
- [11] Fiorella D, Albuquerque FC, Han P, et al. Preliminary experience using the Neuroform stent for the treatment of cerebral aneurysms[J]. *Neurosurgery*, 2004, 54(1):6-16
- [12] Brooks NP, Turk AS, Niemann DB, et al. Frequency of thromboembolic events associated with endovascular aneurysm treatment: retrospective case series[J]. *J Neurosurg*, 2008, 108(6):1095-1100
- [13] Lessne ML, Shah P, Alexander MJ, et al. Thromboembolic complications after Neuroform stent-assisted treatment of cerebral aneurysms: the Duke Cerebrovascular Center experience in 235 patients with 274 stents[J]. *Neurosurgery*, 2011, 69(2):369-375
- [14] Goddard AJ, Raju PP, Gholkar A. Does the method of treatment of acutely ruptured intracranial aneurysms influence the incidence and duration of cerebral vasospasm and clinical outcome [J]. *J Neurol Neurosurg Psychiatry*, 2004, 75(6):868-872
- [15] Broderick JP, Brott TG, Duldner JE, et al. Initial and recurrent bleeding are the major causes of death following subarachnoid hemorrhage[J]. *Stroke*, 1994, 25(7):1342-1347
- [16] Rinkel GJ, Feigin VL, Algra A, et al. Circulatory volume expansion therapy for aneurysmal subarachnoid haemorrhage [J]. *Cochrane Database Syst Rev*, 2004, (4):CD000483
- [17] Kim SS, Park DH, Lim DJ, et al. Angiographic features and clinical outcomes of intra-arterial nimodipine injection in patients with subarachnoid hemorrhage-induced vasospasm[J]. *J Korean Neurosurg Soc*, 2012, 52(3):172-178
- [18] Hui C, Lau KP. Efficacy of intra-arterial nimodipine in the treatment of cerebral vasospasm complicating subarachnoid haemorrhage [J]. *Clin Radiol*, 2005, 60(9):1030-1036
- [19] Rabinstein AA, Wijdicks EF. Cerebral Vasospasm in Subarachnoid Hemorrhage[J]. *Curr Treat Options Neurol*, 2005, 7(2):99-107

(上接第 939 页)

- [12] Bulletti C, Panzini I, Borini A, et al. Pelvic factor infertility: diagnosis and prognosis of various procedures [J]. *Ann N Y Acad Sci*, 2008, 11(27): 73-82
- [13] Godinjak Z, Idrizbegovic E. Should diagnostic hysteroscopy be a routine procedure during diagnostic laparoscopy in infertile women? [J]. *Bosn J Basic Med Sci*, 2008, 8(1): 44-47
- [14] Hahn HS, Chun YK, Kwon YI, et al. Concurrent endometrial carcinoma following hysterectomy for atypical endometrial hyperplasia[J]. *Eur J Obstet Gynecol Reprod Biol*, 2010, 150(1): 80-83
- [15] Boudhraa K, Jellouli MA, Kassaoui O, et al. Role of the hysteroscopy and laparoscopy in management of the female infertility: about 200 cases[J]. *Tunis Med*, 2009, 87 (1) : 55
- [16] Sakar MN, Gul T, Atay AE, et al. Comparison of hysterosalpingography and laparoscopy in the evaluation of infertile women [J]. *Saudi Med J*, 2008, 29(9): 1315-1318
- [17] Tsuji I, Ami K, Miyazaki A, et al. Benefit of diagnostic laparoscopy for patients with unexplained infertility and normal hysterosalpingography findings[J]. *Tohoku J Exp Med*, 2009, 219(1): 39-42
- [18] Burton PR, Brown WA, Laurie C, et al. Mechanisms of bolus clearance in patients with laparoscopic adjustable gastric bands [J]. *Obes Surg*, 2010, 20(9): 1265-1272
- [19] 金治娟, 余蕴秀, 宋建红, 等. 宫腔镜辅助下分段诊刮在子宫内膜癌检查中的应用评价 [J]. *现代生物医学进展*, 2011, 11(11): 2132-2134
- Jin Zhi-juan, She Yun-xiu, Song Jian-hong, et al. Clinical evaluation of hysteroscopy assisted segment curettage in endometrial cancer[J]. *Progress in Modern Biomedicine*, 2011, 11(11): 2132-2134