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宫腹腔镜联合治疗输卵管阻塞性不孕症的疗效及在不同年龄及阻塞类型中疗效差异

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摘要 目的：探讨宫腹腔镜联合治疗输卵管阻塞性不孕症的临床治疗效果及在不同年龄及阻塞类型中的疗效差异。**方法：**选取2013年2月至2015年2月间我院收治的70例输卵管性不孕症患者，按照随机数字表法分为两组，对照组（n=35例）行宫腔镜引导下的输卵管疏通术，观察组（n=35例）在对照组治疗方案上联合腹腔镜治疗，比较两组的临床治疗效果，同时比较宫腹腔镜联合对不同年龄段以及不同阻塞类型患者的临床治疗效果。**结果：**观察组输卵管通畅情况优于对照组（Z= -2.207，P=0.027）；观察组输卵管再通率高于对照组[82.86% vs 60.00%]，差异有统计学意义（x^2=4.480，P=0.034）。两组治疗后并发症发生率无差异（P>0.05）。观察组治疗后1年总妊娠率高于对照组 [82.86% vs 57.14%]，差异有统计学意义（P<0.05）；宫内妊娠率高于对照组 [80.00% vs 51.43%]，差异有统计学意义（P<0.05）。年龄≤30岁组与年龄＞30岁组患者输卵管再通率、总妊娠率、宫内妊娠率无差异（P>0.05）。壶腹部或伞部阻塞患者输卵管再通率、总妊娠率、宫内妊娠率均高于间质部阻塞患者和峡部阻塞患者，差异有统计学意义（P<0.05）。**结论：**宫腹腔镜联合治疗输卵管阻塞性不孕症具有较好的疗效，且输卵管再通率和妊娠率得到明显提高，术后并发症也较少，并且对输卵管壶腹部或伞部阻塞的术后再通率效果最好。

关键词：宫腔镜；腹腔镜；输卵管阻塞；不孕症；临床效果

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Study on Efficacy of Hysteroscopy Combined with Laparoscopy on Salpingemphraxis Infertility

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ABSTRACT Objective: To explore the efficacy of hysteroscope combined with laparoscope combined with in the treatment of salpingemphraxis infertility and differences in efficacy of different ages and types of obstruction. **Methods:** A total of 70 patients with salpingemphraxis infertility, who were admitted to Dazhou Integrated Traditional Chinese and Western Medicine Hospital of Sichuan Province from February 2013 to February 2015, were randomly divided into control group (n=35) and observation group (n=35). The control group (n=35) underwent dredge tubal operation guided by hysteroscope, while the observation group was received laparoscopic treatment on the treatment plan of the control group. The clinical effects of the two groups were compared, at the same time, the clinical effects of hysteroscopy combined with laparoscopy on different age groups and different types of obstruction were compared. **Results:** The patency of fallopian tube in the observation group was better than that in the control group (Z= -2.207, P=0.027). The fallopian tube recanalization rate in the observation group was higher than that in the control group [82.86%vs60.00%], the difference was statistically significant (x^2=4.480, P=0.034). There was no difference in the incidence of complications after treatment between the two groups (P>0.05). The overall pregnancy rate in the observation group 1 year after treatment was higher than that in the control group [82.86%vs57.14%], the difference was statistically significant (P<0.05). The intrauterine pregnancy rate in the observation group was higher than that in the control group [80.00%vs51.43%], the difference was statistically significant (P<0.05). There were no statistical differences in tubal recanalization rate, overall pregnancy rate, intrauterine pregnancy rate of patients between ≤ 30 years and >30 years (P>0.05). The fallopian tube recanalization rate, total pregnancy rate and uterine pregnancy rate in the patients with ampulla or umbrella obstruction were higher than those in interstitial obstructive patients and isthmus obstructive patients,the difference was statistically significant (P<0.05).**Conclusion:** Hysteroscope combined with laparoscope in the treatment of salpingemphraxis infertility has better clinical efficacy, and the recanalization rate and pregnancy rate of fallopian tube are obviously improved,with less postoperative complications and the highest recanalization rate of fallopian tube, ampulla or umbrella block.

Key words: Hysteroscope; Laparoscope; Salpingemphraxis; Infertility; Clinical efficacy

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前言

不孕症育龄期妇女常见的疾病，指的是未采取避孕措施且正常性生活至少 1 年而未妊娠的现象，随着性传播疾病、宫内操作的增加以及性观念的开放，其发病率呈逐渐升高的趋势[1,2]。输卵管阻塞是不孕症众多发病原因中最为常见的，其所占比例约为 30%~40%[3]。不孕症传统的治疗方法如子宫输卵管碘油造影术以及输卵管通液术虽然操作简单，费用较低，但是由于无法全面找出发病原因，且盲目性相对较大，因而难以达到满意的治疗效果[4,5]。随着微创技术和内镜技术的不断发展和成熟，宫腹腔镜联合成为临床治疗输卵管性阻塞性不孕症的重要方式，它能够全面发现不孕的发病原因，且术后治疗效果好，患者满意度高[6-8]。但是关于宫腹腔镜联合在不同年龄段以及不同阻塞类型不孕症患者中相关的研究相对较少，本研究对输卵管性不孕症患者采用宫腹腔镜联合治疗，并以单独宫腔镜引导下输卵管疏通术为对照组，旨在观察宫腹腔镜的临床治疗效果。

1 资料与方法

1.1 一般资料

选取 2013 年 2 月至 2015 年 2 月间我院收治的 70 例输卵管性不孕症患者为研究对象，纳入标准：① 符合输卵管阻塞性不孕症的诊断标准[9]，并经传统宫腔碘油造影或者子宫输卵管造影检查确诊；② 已婚妇女；③ 无手术禁忌症者；④ 患者均有怀孕诉求。排除标准：① 男方因素所致的不孕；② 肝、肾功能障碍者；③ 心功能不全者；④ 合并有其他可能影响妊娠的盆腔器质性病变；⑤ 合并有内分泌异常或者先天性的子宫发育不良导致的不孕。按照随机数字表法将其分为两组，观察组 35 例，年龄 23~39 岁，平均(27.9± 5.6)岁；不孕持续时间 2~8 年，平均(3.9± 1.0)年；原发性不孕 7 例，继发性不孕 28 例。对照组 35 例，年龄 21~37 岁，平均(26.5± 6.7)岁；不孕持续时间 2~7 年，平均(3.5± 1.2)年；原发性不孕 4 例，继发性不孕 31 例。两组患者的年龄构成、不孕持续时间及不孕症类型比较差异不显著(P>0.05)，具有可比性。将观察组患者按照不同年龄分为≤ 30 岁组(n=21 例)和＞30 岁组(n=14 例)，两组患者的不孕持续时间、不孕症类型差异无统计学意义(P>0.05)；将观察组患者按照不同阻塞部位分为间质部阻塞(n=8 例)、峡部阻塞(n=7 例)和壶腹部或伞部阻塞(n=20 例)，不同阻塞部位患者的年龄构成、不孕持续时间、不孕症类型比较差异不显著(P>0.05)。

1.2 方法

观察组患者采用宫腔镜联合腹腔镜进行治疗，具体的操作分两步进行：⑴ 采用腹腔镜对患者进行探查，即将气腹针经脐部插入，并充入二氧化碳以形成气腹，然后将腹腔镜置入其中以察看并确定患者的子宫形状、大小，输卵管以及卵巢的形状，从而制定出手术方案。⑵ 在宫腔镜的引导下行输卵管疏通术，即将宫颈扩开后将宫腔镜置入其中，找到输卵管的开口位置后将医用导管插入，并加压注入混合药液(生理盐水 20 mL、庆大霉素 5 mg、地塞米松 5 mg、糜蛋白酶 1500 U)以将输卵管疏通，在整个手术的操作过程中动作要轻柔，防止损伤输卵管。对照组患者行单纯的宫腔镜治疗，再配合行与观察组相同的输卵管插管疏通术。两组患者术后均行常规的抗感染治疗。

1.3 评价指标

⑴ 手术后第 3 个月，两组患者的输卵管复通率，以及手术后发生的并发症。其中输卵管的通畅率评价标准[10]：① 输卵管通畅：将美兰液指示液注入后输卵管顺利无回逆和阻力，或者开始有回逆和阻力，加压(40~80 kPa 之间为最大推注压力)后的回逆和阻力消失；② 输卵管梗阻：指示液注入后阻力大，将推注压力增加至 40~80 kPa 后无法注入，指示液全部回逆；③ 输卵管通而不畅：指示液注入后部分回逆、有一定阻力。⑵ 术后对患者随访 1 年，记录两组患者的总妊娠率，包括宫内妊娠率、异位妊娠率。

1.4 统计学处理

采用 SPSS16.0 软件对数据录入及统计分析，一般资料的年龄等计量资料以($\bar{x}\pm s$)表示，两组独立样本的比较采用成组 t 检验，输卵管再通率、并发症发生率、妊娠率等计数资料以率(%)表示，比较采用 x^2 检验或者 Fisher 确切概率法，设置检验标准为 α=0.05。

2 结果

2.1 两组患者的输卵管复通率比较

治疗前，两组患者的输卵管通畅情况比较差异无统计学意义(Z=-0.403，P>0.687)，治疗后观察组患者输卵管的通畅情况优于对照组(Z=-2.207，P=0.027)；观察组治疗后的输卵管再通率为 82.86%，对照组为 60.00%，观察组输卵管再通率高于对照组，差异有统计学意义(x^2=4.480，P=0.034)。见表 1。

表 1 比较两组患者治疗后的输卵管复通率[n(%)]

Table 1 Comparison of tubal recanalization rates between patients in two groups after treatment[n(%)]

Groups	n	Fallopian tube patency		Fallopian tube obstruction		Oviduct passage problem		Recanalization rate
		Before treatment	3 months after treatment	Before treatment	3 months after treatment	Before treatment	3 months after treatment	
Observation group	35	2(5.71)	31(88.57)	11(31.43)	3(8.57)	22(62.86)	1(2.86)	29(82.86)
Control group	35	4(11.43)	24(68.57)	10(28.57)	5(14.29)	21(60.00)	6(17.14)	21(60.00)

2.2 两组患者治疗后的并发症发生率比较

两组患者治疗后有不同程度的并发症发生，包括阴道出血、腹部疼痛，两组并发症发生率比较，差异无统计学意义(P>0.05)。见表 2。

2.3 两组患者治疗后 1 年的妊娠率比较

观察组治疗后 1 年的总妊娠率为 82.86%，对照组为

57.14%,观察组总妊娠率高于对照组,差异有统计学意义(P<0.05);观察组宫内妊娠率 80.00%,高于对照组的 51.43%,差异有统计学意义(P<0.05)。见表 3。

表 2 比较两组患者治疗后的并发症发生率[n(%)]

Table 2 Comparison of complications after treatment between two groups[n(%)]

Groups	n	Vaginal bleeding	Abdominal pain	Infected
Observation group	35	3(8.57)	2(5.71)	0(0.00)
Control group	35	5(14.29)	3(8.57)	0(0.00)
x^2	-	0.565	0.215	-
P	-	0.452	0.643	-

表 3 比较两组患者治疗后 1 年的妊娠率[n(%)]

Table 3 Comparison of pregnancy rates 1 year after treatment between two groups [n(%)]

Groups	n	Total pregnancy rate	Intrauterine pregnancy rate	Ectopic pregnancy rate
Observation group	35	29(82.86)	28(80.00)	1(2.86)
Control group	35	20(57.14)	18(51.43)	2(5.71)
x^2	-	5.510	6.341	-
P	-	0.019	0.012	1.000*

Note: * calculated by exact probability method of Fisher.

2.4 观察组不同年龄段患者的输卵管再通率、妊娠率比较 年龄≤ 30 岁组与年龄＞30 岁组患者的输卵管再通率、总妊娠率、宫内妊娠率比较,差异无统计学意义(P>0.05)。见表 4。

表 4 比较观察组不同年龄段患者的输卵管再通率、妊娠率[n(%)]

Table 4 Comparison of fallopian tube recanalization rate and pregnancy rate in different age groups in observation group[n(%)]

Groups	n	Fallopian tube recanalization rate(n=29)	Total pregnancy rate(n=29)	Intrauterine pregnancy rate (n=28)
≤ 30 years group	21	17(80.95)	15(71.43)	18(85.71)
＞30 years group	14	12(85.71)	14(100.00)	10(71.43)
x^2	-	0.134	-	1.071
P	-	0.714	0.061*	0.301

Note: * calculated by exact probability method of Fisher.

2.5 观察组不同阻塞部位患者的输卵管再通率、妊娠率比较 壶腹部、伞部阻塞患者输卵管再通率、总妊娠率、宫内妊娠均高于间质部阻塞患者和峡部阻塞患者，差异有统计学意义(P<0.05)。见表 5。

表 5 比较观察组不同阻塞部位患者的输卵管再通率、妊娠率[n(%)]

Table 5 Comparison of fallopian tube recanalization rate and pregnancy rate in different obstructive places of observation group[n(%)]

Groups	n	Fallopian tube recanalization rate(n=29)	Total pregnancy rate(n=29)	Intrauterine pregnancy rate (n=28)
Interstitial obstruction	8	4(50.00)	5(62.50)	5(62.50)
Isthmic obstruction	7	5(71.43)	4(57.14)	4(57.14)
Ampulla or umbrella obstruction	20	20(100.00)*	20(100.00)*	19(95.00)*
x^2	-	10.862	9.731	6.629
P	-	0.004	0.008	0.036

Note: compared with the other two groups, *P<0.05.

3 讨论

不孕症已成为育龄期妇女常见的生殖系统疾病，近年来，其在我国的发病率呈逐年增加的趋势，给有生育要求的女性带来严重的困扰。输卵管在女性的生殖系统中是最重要的组成部分之一，具有输送精子、摄取卵子、运送受精卵等功能，一旦输卵管发生障碍，极有可能导致女性不孕[11-13]。已有研究证实[14-16]，输卵管阻塞是引起女性不孕症的重要原因，其病理机制为各种急、慢性输卵管炎症导致输卵管阻塞，致使精子和卵子结合受阻，最终引发输卵管阻塞性不孕症。目前，针对输卵管阻塞性不孕症的治疗方法主要有传统中医中药方案、宫腔内通液、宫腔镜下再通术的应用等[17,18]。其中传统的中医中药起效较慢，疗程较长，是一个长期的过程；宫腔内通液治疗则常因治疗药物难以准确进入输卵管，或者无法明确输卵管阻塞是一侧还是双侧，因此治疗效果不理想，满意度较差；而单纯的宫腔镜下输卵管再通术不能较好的改善输卵管粘连，同时也有增加宫外孕的风险[19-21]。随着微创技术的快速发展，报道显示[22]，宫腔镜与腹腔镜双＂镜子＂齐下治疗输卵管阻塞性不孕症，能明显提高临床治疗效果。宫腔镜可以对整个子宫进行探查，以了解患者的不孕症发生具体原因，并能据实际病情采取针对性的治疗方案，而腹腔镜则可以对腹腔内的脏器清晰的察看，手术操作者可以在腹腔镜直视下进行相关手术[23-25]。

本研究采用宫腹腔镜联合治疗输卵管阻塞性不孕症，并以单纯宫腔镜引导下的输卵管疏通术作为参照。结果显示，治疗后观察组患者输卵管的通常情况优于对照组，并且观察组输卵管再通率为 82.86%，高于对照组的 60.00%。结果提示宫腹腔镜联合能明显提高输卵管阻塞性不孕症患者的临床疗效，促进输卵管的再通，从而为下一步的妊娠提供条件。可能与宫腹腔镜联合可以优势互补有关[26-28]：宫腔镜可以对输卵管的子宫腔开口进行探查，并将通液管准确插入输卵管口，而在插管过程中，也会对输卵管气道疏通的作用，同时，在加压通液的过程中，也可使炎症渗出物、输卵管痉挛等导致的栓子堵塞得到有效治疗；腹腔镜直视下可以对输卵管的通畅程度、以及梗阻的部位及其周围粘连情况等进行探查，并针对具体情况采取相应的手术方案进行治疗。此外，手术后，两组患者均发生不同程度的并发症，包括阴道出血、腹部疼痛等，但是患者均能耐受，对症处理后并发症得到缓解，两组患者并发症发生率无明显差异，说明输卵管阻塞性不孕症采用宫腹腔镜联合治疗的安全性高，临床有重要的参考价值。术后随访 1 年，观察组总妊娠率为 82.86%，高于对照组的 57.14%，观察组宫内妊娠率为 80.00%，高于对照组的 51.43%。结果进一步说明宫腹腔镜联合可以提高患者的妊娠率，与有关研究结果一致[29]。

对宫腹腔镜治疗的患者按照年龄分组发现，年龄≤ 30 岁组与年龄＞30 岁组患者的输卵管再通率、总妊娠率、宫内妊娠率无明显差异，说明宫腹腔镜联合治疗输卵管阻塞性不孕症的疗效与年龄无关，可能与本研究纳入的样本量相对较小有关，应在以后的研究中扩大样本量加以证实。结果还发现，输卵管壶腹部、伞部阻塞的患者其输卵管再通率、总妊娠率、宫内妊娠率均高于间质部阻塞和峡部阻塞患者，可能是因为宫腹腔镜联合下，针对输卵管壶腹部、伞部阻塞的患者，在腹腔镜直视下，通过盆腔粘连松解可以使子宫、卵巢以及输卵管的解剖位置得到有效恢复，而在宫腔镜下可进一步行伞端粘连和积水扩张术和造口术，而对于间质部阻塞以及峡部阻塞的患者，宫腹腔镜治疗的效果相对较差[30]。因此，建议临床上应重点关注间质部阻塞以及峡部阻塞患者，对于治疗效果不佳者，应早期着手准备实施体外受精 - 胚胎移植手术，以帮助患者早日怀孕。

综上所述，宫腹腔镜联合可以明显发挥各自优点，起到优势互补的作用，两者联合可以明显提高输卵管阻塞性不孕症患者的的临床疗效，提高再通率，帮助患者早日妊娠，且手术安全，对输卵管壶腹部、伞部阻塞的术后再通率效果最好，临床有重要参考价值。

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(上接第 6327 页)

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