

妇产科手术致输尿管阴道瘘的单中心临床处理

罗德毅¹ 唐岱¹ 孙毅¹ 杨童欣¹ 沈宏¹

【摘要】 目的:探讨妇产科手术致输尿管阴道瘘的病因和特点,总结单中心输尿管损伤的诊治经验和措施。**方法:**对 2008 年 1 月~2016 年 1 月在四川大学华西医院行妇产科手术所致的 57 例输尿管损伤患者的临床资料进行回顾性分析。观察指标包括手术时间、术后并发症等,随访患者的治疗效果。**结果:**50 例(87.7%)行输尿管膀胱再植手术,其中开放手术 42 例,腹腔镜手术 8 例;7 例(12.3%)行膀胱翻瓣输尿管成形术。平均手术时间为 85(60~145)min。患者均无严重术后并发症,5 例术后出现伤口感染。术后平均随访时间为 3.5 个月(1 个月~3 年),患者出院后 1 个月门诊复查肾功能和泌尿系 B 超。随访期间,所有患者通过影像学证实无输尿管瘘和输尿管狭窄征象。**结论:**妇产科手术致输尿管阴道瘘在女性泌尿道生殖瘘中呈逐渐上升趋势,其主要病因为妇科肿瘤行子宫全切术。CT 尿路造影(CTU)能够快速而又准确地诊断输尿管损伤,尝试放置输尿管支架管失败后,早期输尿管膀胱再植仍是输尿管阴道瘘处理的最佳方式,腹腔镜输尿管膀胱再植术因创伤小、恢复快值得进一步推广。

【关键词】 输尿管阴道瘘;输尿管损伤;妇产科手术;输尿管膀胱再植

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Management of ureterovaginal fistula following gynecological operations in single medical center

LUO Deyi TANG Cai SUN Yi YANG Tongxin SHEN Hong

(Department of Urology, Institute of Urology, West China Hospital, Sichuan University, Chengdu, 610041, China)

Corresponding author: SHEN Hong, E-mail: shen1177@163.com

Abstract Objective: To evaluate etiology and characteristics of ureterovaginal fistula, and to summarize the clinical experience of diagnosis and treatment for ureterovaginal fistula in single medical center. **Method:** From January 2008 to January 2016, 57 consecutive women with ureterovaginal fistula following gynecological operations were included. Collection of the data included operative time, pre- and post-operative complications. All data were recorded and analyzed by SPSS15.0 using statistical description. **Result:** Of these patients, 50 cases (87.7%) underwent ureteral reimplantation while the other 7 (12.3%) underwent Boari-Ockerblad bladder flap for ureteroneocystostomy. For ureteral reimplantation, 42 cases underwent open surgery and 8 cases underwent laparoscopic surgery. The mean operation time was 85 (range, 60-145) min. There was no serious complication after surgery, but five cases were found surgical incision infection. Mean follow-up period was 3.5 (range, 1-36) months. Patients were followed up in outpatient clinic at one month. Blood urea nitrogen and serum creatinine were estimated and ultrasonography of the renal tract was carried out. No ureteral fistula or ureteral stricture was documented by imaging. **Conclusion:** The incidence of ureterovaginal fistula following gynecological operations is increasing, and the main etiology is hysterectomy for benign or malignant disease. The ureteral injury could be diagnosed promptly and accurately by CTU. When stent placement is unsuccessful, early ureteral reimplantation is the priority. The laparoscopic reimplantation could be recommended to patients because of less invasion and quickly recovery.

Key words ureterovaginal fistula; ureteral injury; gynecological operations; ureteral reimplantation

输尿管阴道瘘指输尿管和阴道之间存在异常通道,尿液自瘘口流出,不受控制,是医源性输尿管损伤的严重并发症之一。据文献报道,在盆腔内手术时因各种原因造成的输尿管损伤发生率为 0.5%~1.0%^[1],其中 78%~82%发生于子宫切除术、盆底修复重建术和盆腔血管手术^[2,3]。超过 90%的医源性输尿管损伤术中就会被外科医生识别^[4]。由于输

尿管阴道瘘严重降低患者的生活质量,且可能导致感染、肾功能损失等严重并发症,故如何快速而又有效地处理一直以来都是外科医生面临的挑战。2008 年 1 月~2016 年 1 月,我院收治输尿管阴道瘘患者 57 例,疗效满意,现报告如下。

1 资料与方法

1.1 一般资料

本组 57 例。年龄 35~69 岁,平均 53 岁;病程 0.3~24 个月,平均 1 个月。左侧输尿管损伤 45

¹四川大学华西医院泌尿外科,四川大学华西泌尿外科研究所(成都,610041)

通信作者:沈宏,E-mail: shen1177hx@163.com

例(78.9%),右侧输尿管损伤 10 例(17.6%),双侧输尿管损伤 2 例(3.5%)。其中子宫全切术 38 例(66.6%),因浸润性宫颈癌行广泛子宫切除加淋巴清扫 12 例(21.1%),剖宫产术后 3 例(5.3%),附件切除术后 4 例(7%)。所有患者均行 B 超、美蓝试验及 CTU。B 超示 40 例(70.2%)有轻-中度肾积水;美蓝试验均为阴性;50 例(87.7%)患者 CTU 显示输尿管阴道间造影剂通过。5 例(8.8%)患者行肾图检查示双上尿路排泄缓慢伴左肾功能损害。

1.2 治疗方法

本组患者明确诊断后行输尿管阴道瘘修补术,采用经腹腔或腹膜外入路,部分患者采用腹腔镜处理,将扩张的输尿管游离至狭窄和粘连处后切断,采用黏膜下隧道法行输尿管膀胱再植术或膀胱翻瓣输尿管成形术,术后均留置输尿管支架管和导尿管,导尿管 3~5 d 拔除,输尿管支架管术后 3~4 周局麻下经尿道膀胱镜取出。

2 结果

研究期间,共收治泌尿道生殖瘘 255 例,其中膀胱阴道瘘 198 例(77.6%),输尿管阴道瘘 57 例(22.4%),本组患者入院前均尝试行输尿管插管,均失败。50 例(87.7%)行输尿管膀胱再植手术,其中开放手术 42 例,腹腔镜手术 8 例;7 例(12.3%)行膀胱翻瓣输尿管成形术。平均手术时间为 85(60~145)min。患者均无严重术后并发症,5 例术后出现伤口感染。术后平均随访时间为 3.5 个月(1 个月~3 年),患者出院后 1 个月门诊复查肾功能和泌尿系 B 超。随访期间,所有患者通过影像学证实无输尿管瘘和输尿管狭窄征象。

3 讨论

在妇产科盆腔手术中,因手术部位较深,受局部炎症粘连或肿瘤浸润、推移的影响,将会使输尿管解剖发生改变。在分离肿瘤、游离子宫、处理子宫动脉及韧带时,或出血慌忙止血时等,均可造成输尿管被钳夹、切割、缝扎或营养血管破坏等,引起输尿管损伤。输尿管损伤后,若无异常通道,尿液则积存于盆腹腔内。经阴手术时阴道端有创面,或经腹子宫切除术阴道残端有缝线创面时,输尿管与阴道之间形成异常通道,尿液自阴道溢出,便形成输尿管阴道瘘。

绝大多数输尿管损伤发生在子宫动脉下方输尿管远端^[5]。然而,因妇科肿瘤需行扩大淋巴结清扫时,可伤及高位输尿管,甚至肾盂。由于左侧输尿管较右侧输尿管与宫颈有更为紧密的关系,左侧输尿管更容易受到损伤^[6],该研究中左侧输尿管损伤的概率达到 77.1%。文献报道双侧输尿管同时损伤的概率为 5%~10%^[7],本研究中仅 2 例(3.5%)出现双侧输尿管损伤。在泌尿道生殖瘘

中,输尿管阴道瘘的概率从 2011 年快速升高,2012 年达到高峰,后有下降趋势但仍维持在高位。这可能与腹腔镜技术快速普及,大量应用能量器械所致的电损伤和热辐射有关。

输尿管损伤与手术难度和外科医生的经验相关^[8]。尽管任何妇产科手术均可能导致输尿管损伤,但子宫切除术仍是主要原因^[8~11],该研究中该类手术占 66.7%。损伤的不利因素包括增大的子宫、盆腔粘连和术中出血^[8]。妇科恶性肿瘤手术输尿管损伤的概率更高^[7],其原因在于解剖改变和输尿管充分游离所致的缺血坏死^[8]。

输尿管损伤后患者的临床症状轻重不一。若尿液不能流出,则可在腹腔内形成尿囊肿。有些患者的症状可能发生较晚,一些患者表现为腹痛、发热和阴道漏尿^[12]。无尿的患者要警惕是否为双侧输尿管损伤。同时也需注意约 5%的患者可无任何临床症状,因其他原因就诊时发现肾积水或肾无功能^[13]。本研究中,最常见的症状为阴道漏尿和腹痛。对本组病例,CTU 是诊断输尿管损伤的金标准,93.8%的输尿管阴道瘘患者 CTU 有典型的造影剂渗漏表现。尽管静脉肾盂造影和逆行肾造影仍有一定的价值^[14,15],但我们认为 CTU 可能会逐渐取代 IVP。尽管通过病史和查体,部分患者诊断较为明确,但 CTU 能够为术者判断病情和选择不同的手术方式提供参考。

对输尿管阴道瘘的外科处理时机仍存在争论。部分学者认为,早期尿外渗引起组织充血、水肿,输尿管愈合能力差,应先做尿液引流。待局部炎症控制,输尿管供血改善再行手术。另外,延期手术等待期间,部分患者瘘管可能自行愈合^[16],从而避免再次手术。然而,研究发现输尿管损伤后狭窄的发生率很高,可导致肾功能损害,故仍需要手术处理^[17]。大多数学者认为早期手术处理可降低梗阻导致的肾功能损害,缩短患者住院时间,减少医疗费用,及时减少因尿瘘给患者带来的身心伤害。故此,我们认为应积极处理输尿管阴道瘘,但对于每一例患者应该采用个体化治疗策略。对全身情况较好、局部炎症不明显的患者一经确诊应及时处理,尤其是对出现输尿管狭窄梗阻的患者。本组 57 例均在明确诊断后早期手术,疗效满意。但也需要谨记,当发生输尿管多段损伤或双侧损伤,过早处理时输尿管损伤瘘口未形成,可能导致只处理了某处损伤,而遗留的损伤需再次手术处理。如局部炎症严重,患者一般情况差,延期手术较为合适。若肾脏积水可以先做肾脏穿刺造口引流,控制感染,待局部炎症控制,全身情况改善后再行手术。

医源性输尿管损伤的处理原则是保护肾功能和恢复尿路的连续性。对于输尿管阴道瘘,具体术式应根据损伤局部情况、输尿管缺损长度等选择。

应尝试经膀胱镜或输尿管镜置入双 J 管, 放置 1~3 个月后取出, 瘘孔可能自愈。本组病例在入院前均尝试留置双 J 管失败。如果置入双“J”管失败, 则需行输尿管端端吻合、输尿管膀胱再植术或膀胱翻瓣输尿管成形术, 术中放置双“J”管, 术后 1 个月取出。手术原则应充分切除瘢痕及炎性组织, 吻合后无张力、不狭窄、不扭曲, 尽量少的尿液渗漏, 缝线无张力, 血供良好。输尿管缺损过长者, 还可考虑行肠代输尿管或肾脏松解甚至自体肾移植。

为避免输尿管损伤, 需要术者熟悉盆腔及腹腔解剖^[18], 注意增加输尿管损伤的不利因素^[19], 可以预防性留置输尿管支架, 但其降低输尿管损伤的有效性仍需要进一步验证^[18]。术中识别输尿管损伤并处理是最佳方式^[20~22], 术后早期处理能够减少患者痛苦及医疗纠纷^[23]。

综上所述, 妇产科手术致输尿管阴道瘘在女性泌尿道生殖瘘中呈逐渐上升趋势, 其主要病因为妇科肿瘤行子宫全切术。CTU 能够快速而准确地诊断输尿管损伤, 当尝试放置输尿管支架管失败后, 早期输尿管膀胱再植仍是输尿管阴道瘘处理的最佳方式, 腹腔镜输尿管膀胱再植术因创伤小、恢复快值得进一步推广。

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