Video abstract

Laparoscopic creation of neovagina and neocervix, followed by their reconstruction with polytetrafluoroethylene graft/buccal mucosa and pudendal artery perforator flap

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Abstract

Congenital cervical agenesis is a rare Müllerian anomaly that may be associated with partial or complete vaginal aplasia and renal anomalies. Symptoms such as amenorrhea and abdominal pain usually develop shortly after menarche, when the absence or obstruction of the cervical canal results in blood accumulation in the uterus and fallopian tubes, and finally in the peritoneal cavity. Physical examination sometimes reveals normally developed external sex organs. Delayed diagnosis and treatment may potentially result in extensive endometriosis, which may potentially cause severe adhesion and damage to reproductivity. Such consequences could complicate further the management of the disease. Traditionally, hysterectomy has been the treatment of choice in these cases because of the high failure rate of canalization procedures and risk of serious ascending infection. With advanced laparoscopic techniques, conservative management seems feasible and has been recommended. We herein present a patient with complete cervical and vaginal agenesis. Creation of a neovagina and uterovaginal anastomosis were performed first under the guidance of laparoscopy (Figure 1). A neocervix was composed of a polytetrafluoroethylene graft and a piece of oral mucosa retrieved from the buccal area. The neovagina was reconstructed with an external pudendal artery perforator flap. A cervical Fr 16 size Foley was left in place as a stent. The patient had uneventful postoperative recovery and fair wound healing at the outpatient follow-up. Congenital agenesis of the uterine cervix and vagina can be differentiated accurately and reconstructed laparoscopically. Using mesh-buccal mucosa composite and pudendal perforator flap is a practical way to reconstruct neocervix and neovagina after their creation.

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