Laparoscopic radical hysterectomy and total vaginectomy for vaginal malignant melanoma with cervical metastasis

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Abstract

The presented case is a 63-years-old multiparous woman admitted with the complaint of postmenopausal bleeding. On gynecologic examination multifocal lesions were detected, including 1 cm on lateral vaginal wall, 4 cm on posterior vaginal wall and 0.5 cm on the left lateral part of the cervix. Histopathology examination gave a diagnosis of epithelioid malignant melanoma. Consequently, laparoscopic radical hysterectomy and total vaginectomy with bilateral pelvic and inguinofemoral lymph node dissection were planned. On both sides, pararectal and paravesical spaces were created and the ureter was identified. Then, the vesicouterine and vesicovaginal spaces were developed. Uterine artery and superior vesical artery were coagulated, cut and the lateral parametrium was prepared. The left ureter was dissected and the ureteral tunnel was unroofed up to the bladder entrance. Subsequently, the anterolateral parametrium was transected. Then, the infundibulopelvic and sacrouterine ligaments were sealed and transected. At this time, the rectovaginal space was developed. Bilateral paracolpos were transected. The endopelvic fascia with the levator muscles were sealed and cut circumferentially. Anteriorly, the pubovesicocervical fascia was transected and the bladder was mobilized up to the uretrovesical junction. Thereafter, through a vaginal approach, the cervix and vagina were inverted by grasping the cervix with a tenaculum. An incision on the posterior vaginal wall at the introitus was made and the urogenital diaphragm was dissected to connect with the pelvic cavity. The vaginal entrance was cut circumferentially and the surgical specimen was extracted. In conclusion, laparoscopy can be considered as a feasible approach for radical hysterectomy and total vaginectomy in selected patients.

Keywords: Laparoscopic radical hysterectomy, total vaginectomy, vaginal malignant melanoma

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Introduction

Genital malignant melanomas constitute 1.6% of all melanomas occurring in women. Vaginal malignant melanomas constitute 0.3% of all malignant melanomas and less than 3% of all vaginal carcinomas (1). It is predominantly observed in the sixth and seventh decades of life (2). Surgery (vaginectomy, hysterectomy and lymphadenectomy) is the cornerstone of treatment (3). The primary goal of these excisional procedures is to avoid local recurrence, which mainly occurs in the vagina (3). The present case was a 63-year-old multiparous woman admitted with the complaint of postmenopausal bleeding. On gynecologic examination, multifocal lesions were observed, including 1 cm on the lateral vaginal wall, 4 cm on the posterior vaginal wall and a 0.5 cm lesion on the left lateral part of the cervix. The pelvic organs were evaluated as normal with bimanual examination and transvaginal ultrasonography. A whole-body positron emission tomography-computed tomography scan was performed and no distant metastasis or tumor infiltration was evident. Histopathological assessment confirmed a diagnosis of epithelioid malignant melanoma.

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Consequently, laparoscopic radical hysterectomy and total vaginectomy with bilateral pelvic and inguinofemoral lymph node dissection were planned. At laparoscopy a 10 mm trocar was inserted via intraumbilical vertical incision. Three 5 mm ancillary trocars were used; one on the left lateral of the umbilicus, and two in the left and right lower abdominal quadrants. After entrance to the abdomen, all the pelvic structures and abdomen were explored. On both sides, the broad ligament was incised, pararectal and paravesical spaces were created and the ureter was identified. The uterovesical peritoneum was opened, vesicouterine and vesicovaginal spaces were developed. Uterine artery and superior vesical artery were coagulated, cut and the lateral parametrium was prepared, on both sides. The right ureter was dissected and ureteral tunnel was unroofed up to the bladder entrance. Subsequently, the anterolateral parametrium was transected. Then, the infundibulopelvic and sacrouterine ligaments were sealed and transected. Then the rectovaginal space was developed and the rectovaginal septum was transected and dissected to the pelvic floor. Bilateral paracolpos were transected. The endopelvic fascia with the levator muscles were sealed and cut circumferentially. Anteriorly, the pubovesicocervical fascia was transected and the bladder was mobilized up to the uretrovesical junction. Ultimately, when the pelvic diaphragm was sealed and cut to the perineum and vestibulum, the laparoscopic phase was completed. Using a vaginal approach, the cervix and vagina were inverted by grasping the cervix with a tenaculum. An incision on the posterior vaginal wall at the introitus was made and the urogenital diaphragm was dissected to connect with the pelvic cavity. Thereafter, the vaginal entrance was cut circumferentially under finger guidance, taking care to preserve the urethra, and the surgical specimen was extracted (Figure 1). Finally, the vaginal entrance was sutured. The surgical procedure is presented in Video 1.

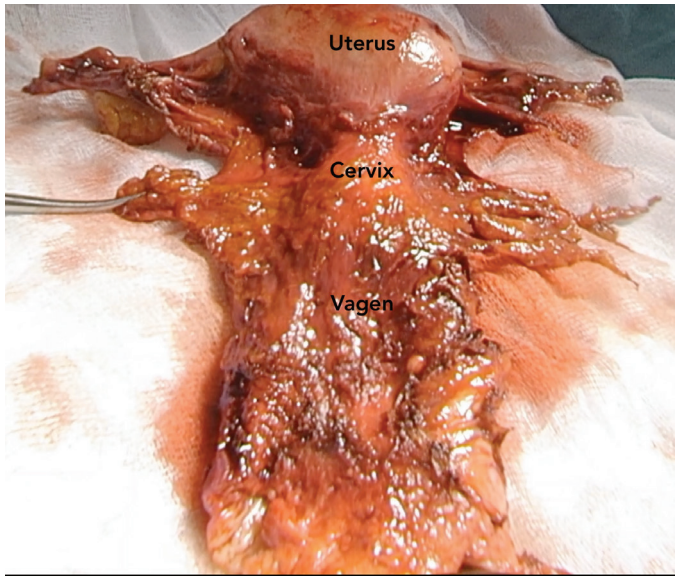

Figure 1. Surgical specimen

The patient was discharged on postoperative day 7 without any complications. Seventeen inguinofemoral and 30 pelvic lymph nodes were resected and none were metastatic. Surgical margins were negative within >10 mm. No adjuvant treatment was recommended. In conclusion, laparoscopy can be considered as a feasible approach for radical hysterectomy and total vaginectomy in such appropriate patients.

Video 1. Laparoscopic radical hysterectomy and total vaginectomy for vaginal malignant melanoma with cervical metastasis

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