LAPAROSCOPIC TOTAL PELVIC EXENTERATION USING A LINEAR STAPLER FOR URETHRAL AND DORSAL VEIN COMPLEX TRANSECTION

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<Case Description>

The patient was an 85-year-old man with advanced low rectal cancer. His body mass index was 22.1 kg/m². The tumor was suspected to have invaded the prostate and be located 2.0 cm from the anal verge.

Fig. 1 Preoperative imaging. Colonoscopy reveals advanced low rectal cancer (a). Computed tomography (CT) and magnetic resonance imaging (MRI) reveal the tumor on the anterior side with suspected invasion of the prostate. CT, T2-weighted MRI, and diffusion-weighted MRI scans are shown in (b), (c), and (d), respectively. White arrows indicate the tumor. Red arrowheads indicate the prostate.

<Operative Procedures>

After medial-to-lateral retroperitoneal dissection and division of the inferior mesenteric artery, posterior dissection was performed to the level of the levator ani muscle. The bilateral ureters were mobilized and divided at the level of the ureterovesical junction. Anteriorly, the Retzius and the paravesical spaces were exposed to the level of the endopelvic fascia. Bilateral dissection was performed along the internal iliac vessels, and branches from these vessels were divided, and the lateral endopelvic fascia was exposed.

The DVC was exposed using the laparoscopic approach, but this easily bleeding area was not touched at this point.

Fig. 2 Laparoscopic view of the anterior dissection of the genitourinary organs. The asterisk and hashtag indicate the bladder and pubic bone, respectively. The white arrow and red arrowhead indicate the DVC and prostate, respectively.

Results

The DVC and the urethra were easily transected without significant bleeding, and the operative procedure was relatively less time consuming. Total operating time was 513 min and estimated blood loss was 629 mL. Postoperatively, he developed pelvic dead space infection; however, he responded to conservative treatment. His postoperative hospital stay was 47 days.

The final pathological result showed pT4 (prostatic invasion) and positive lymph node metastasis. The circumferential resection margin (CRM) of the tumor was negative (5 mm). No disease recurrence was detected during the follow-up period (7 months).

Conclusion

The use of a linear stapler for DVC and urethral transection during laparoscopic TPE performed for advanced low rectal cancer is a simple and useful method associated with minimal bleeding.

References