Complete laparoscopic resection of a retrorectal tumor.

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Background

Tailgut cysts, also known as retrorectal cystic hamartomas or mucous-secreting cysts, are rare entity with an incidence of approximately 0.015 %. They arise from aberrant remnants of the embryonic postanal gut, which regress incompletely during embryogenesis. Complete surgical resection is the treatment of choice for tailgut cysts, because of their malignant potential and tendency to regrow if incompletely resected. Usually, retrorectal tumors are removed by transsacrococcygeal approach, transabdominal approach, transabdominal approach, or combined abdomino-sacrococcygeal approach, according to the location and size of the tumor. Laparoscopic approach is rarely chosen because dissection of the tumor in the small space of the narrow pelvis is challenging. However, whenlaparoscopic approach is successfully accomplished, it can provide the benefit of minimally invasive surgery. Moreover, laparoscopic approach is advantageous when conversion to the rectal resection is required.
Here we report a case of a very low-lying retrorectal tumor successfully resected by laparoscopic approach alone.

Case Presentation

The patient is a 52-year-old woman who was found to have a rectorectal tumor during a physical examination.
CeCT showed a 17mm oval cystic tumor, located at the left posterior side of the rectum upon the levator ani (Figure 1).
On MRI, the tumor showed low signal intensity on T1-weighted images, high signal intensity on T2 –weighted images, and slightly high signal intensity on diffusion-weighted images, suspected to be a cystic lesion rather than a solid one (Figure 2).
The presumptive diagnosis was tailgut cyst, and laparoscopic tumor resection was planned.

Operative Method

The operation was started laparoscopically with 5 ports. The sigmoid colon was mobilized using a medial to lateral approach to preserve the left ureter and gonadal vessels. The mesorectum was carefully mobilized in the pelvis to preserve the hypogastric nerves and pelvic plexus. After broadly exposing the levator ani from the posterior side to the lateral sides, a smooth oval tumor embedded in the levator ani was detected at the posterior side of the rectum (Figure 3). The tumor was easily dissected from the posterior rectum, and was resected together with a small amount of levator ani (Figure 4).
The digital rectal examination revealed no weakness in the rectal wall.
The total intraoperative blood loss was 0 mL, and the operative time was 181 min.
The postoperative course was uneventful. The patient started taking meals orally from the day after the operation, and was discharged 4 days after the operation.

Figure 1

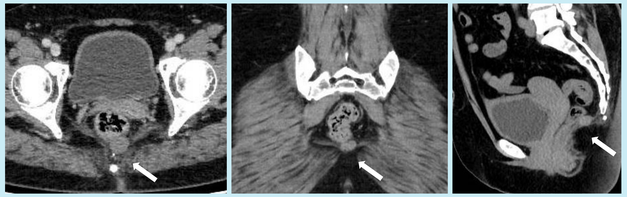
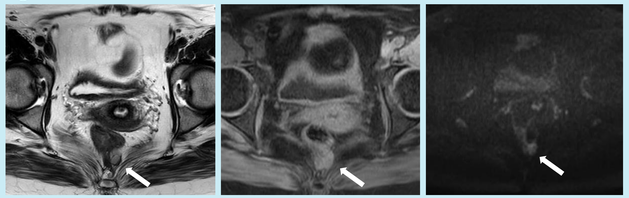
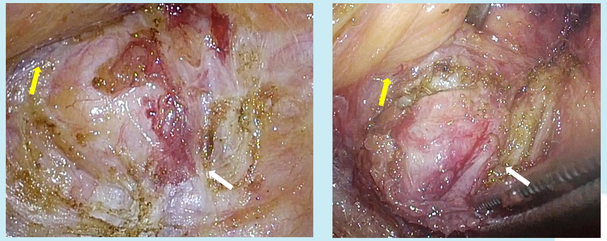


Figure 2



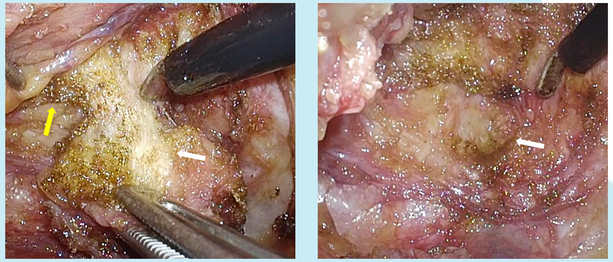
Operative Method

Figure 3



A smooth oval tumor seemed to be embedded in the levator ani.
Yellow arrow indicates the posterior side of the rectm.
White arrow indicate the tumor.

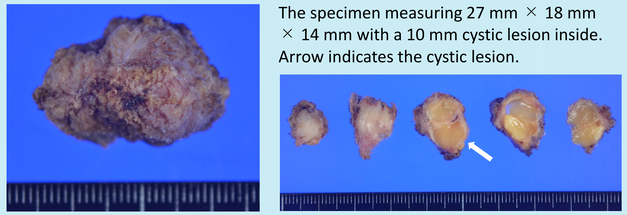
Figure 4



Yellow arrow indicates the posterior side of the rectm.
White arrow indicate the levator ani slightly resected with the tumor.

White arrow indicate the hollow in the levator ani after the tumor was resected, reveals that the tumor was embedded here.

Figure 5



The specimen measuring 27 mm × 18 mm × 14 mm with a 10 mm cystic lesion inside.
Arrow indicates the cystic lesion.

Post Operative Course

Macroscopically, the specimen measures 27mm × 18mm × 14mm in size, including a bilocular cyst. Yellowish-white jelly-like substance occupies the inside of the cyst.
Histologically, the cyst wall is consisted of multilayered epithelium with a very small amount of glass-like fibrosis. The cyst is surrounded by smooth muscles and some adipose tissues. The levator ani and a small amount of skeletal muscles are adhered (Figure 5).

Conclusion

Laparoscopic resection of retrorectal tumors is relatively challenging. However, when it is accomplished, it can provide benefits for the patients. In this case, we performed complete laparoscopic resection for a very low-lying lesion and the postoperative course was favorable.
Laparoscopic approach can provide a feasible alternative to the conventional approaches for retrorectal tumors.

References

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