A CASE OF A PELVIC EPIDERMAL CYST DIAGNOSED BY PREOPERATIVE CYTOLOGY AND COMPLETELY RESECTED LAPAROSCOPICALLY WITHOUT MINI-LAPAROTOMY

Tadao Kubota. Department of General Surgery Okinawa Chubu Hospital

Case 40-year-old female: During routine examinations for other conditions, an asymptomatic pelvic mass with a maximum diameter of 10 cm was incidentally discovered (Figure1 and Figure2). The initial hospital diagnosed the mass as a tailgut cyst. Due to the large size of the mass, it was determined that a certain degree of laparotomy would be necessary to avoid damaging the capsule during a laparoscopic approach. As a result, the patient hesitated to undergo surgery and continued with regular check-ups, during which several years passed.

Course: Five years after the discovery, the patient relocated, and her care was transferred to our hospital. Based on our assessment, the size of the mass had gradually increased, albeit slowly, over the five years. We concluded that surgical removal would be preferable, regardless of the method. To balance certainty and safety, we proposed either a laparoscopic approach with a small laparotomy or a transperineal approach as options. However, the patient strongly desired a less invasive procedure. Therefore, we proposed performing a cytology test. If the mass was malignant, we would proceed with one of the previously suggested options. If benign, we proposed reducing the size of the mass by aspirating its contents laparoscopically, followed by removal through a small incision.
With the patient's consent, a cytology test was performed, and the pathology results only showed keratinized components. Therefore, it was determined that the mass was likely not the initially suspected tailgut cyst but rather an epidermal cyst.

Surgery details: The surgery was performed laparoscopically. The arrangement and number of each port was just same as that of low anterior resection for rectal cancer (Figure3). In intraoperative view, the cyst was located just right and beneath of the rectum. At first, we dissected all connection between cyst and surrounding tissue except for the pedicle, which was fixed the coccyx. Then we made a small hole at the top of the cyst. And though the hole, we evacuated all contents that looks completely same as skin epidermal cyst. After that, the cyst was resected from the coccyx. It was able to took out through the hole of the umbilical port, no need any dilatation.

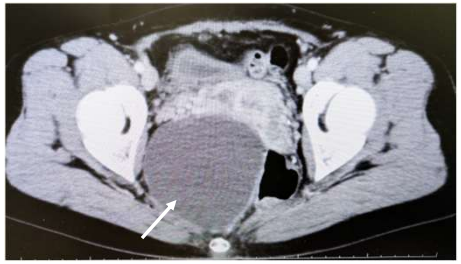


Figure 1: Enhanced CT
Non-enhanced cyst is located just behind uterus (arrow).

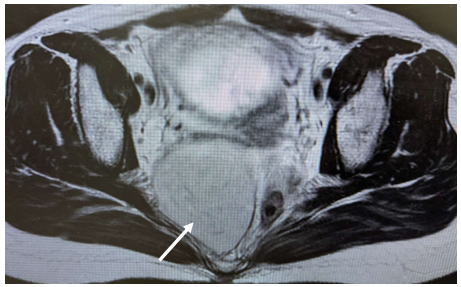


Figure 2: MRI
T2 iso to high homogenous cyst (arrow)

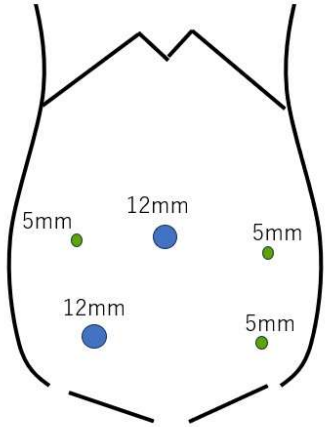


Figure 3: port location
The cyst was taken out from umbilical port without any dilatation.

Discussion: Initially, this case was diagnosed as a tail gut cyst. In such cases, it is essential to excise the lesion while preventing spillage of its contents into the abdominal cavity. Although various surgical approaches for tail gut cysts have been reported, all ultimately require an incision proportional to the tumor size. In this case, considering the patient's strong preference, a non-incisional approach was explored. Preoperative cytology strongly suggested that the lesion was a pelvic epidermal cyst rather than a tail gut cyst. Based on this finding, leakage of the cyst contents was deemed acceptable, and aspiration was performed intra-abdominally. As a result, the lesion was removed using the least invasive method, leading to high patient satisfaction.
Preoperative cytology is not routinely performed for suspected tail gut cysts. However, in cases with a chronic course where malignancy is unlikely, cytological examination could be considered as a means to reduce surgical invasiveness.