



Laparoscopic Surgery with Benign Features of Retrorectal Mass: A Report of Two Cases

Benign Özellikli Retrorektal Kitle Nedeni ile Laparoskopik Cerrahi Yapılan İki Olgu Sunumu

© Sadettin Er, © Bülent Cavit Yüksel, © Deniz Tikici, © Barış Doğu Yıldız

University of Health Science, Ankara Numune Training and Research Hospital, Clinic of General Surgery/Colorectal Surgery, Ankara, Turkey

ABSTRACT

The tailgut cyst is a rare congenital disease of presacral/retrorectal space. The rarity of the lesion and its anatomical position usually lead to difficulty in diagnosis and surgical management. We present cases of retrorectal tailgut cyst managed using a laparoscopic approach. Both patients had long-term complaints of pain in the anal area, especially when sitting. The patients were referred to our center for masses detected in the retrorectal region in the exams conducted in the external center. Magnetic resonance imaging examinations revealed a benign mass in the retrorectal area in both patients. We therefore preferred a laparoscopic approach. In both of our cases, the pain in the anal area upon sitting was a different clinical presentation than that described in the literature.

Keywords: Retrorectal space, tailgut cyst, laparoscopic approach, the pain in the area which was sitting in both patients

ÖZ

Tailgut kisti retrorektal/presakral mesafede görülen nadir konjenital hastalıktır. Anatomik pozisyonu ve lezyonun nadir görülmesi genellikle cerrahi yönetim ve tanıda zorluğa neden olur. Laparoskopik yaklaşımı kullanarak retrorektal tailgut kist olgularını sunduk. Her iki hasta uzun süredir ve özellikle otururken olan anal bölgede ağrıdan yakınmaktaydı. Hastalar dış merkezde yapılan tetkiklerde, retrorektal bölgede saptanan kitle nedeni ile merkezimize yönlendirilmiş. Manyetik rezonans görüntüleme tetkiklerinde, her iki hastada benign özellikte retrorektal bölgede kitle mevcuttu. Bu nedenle hastalara laparoskopik yaklaşımı tercih ettik. Burada her iki hastada otururken olan anal bölgedeki ağrı, literatürden farklı olarak klinik prezentasyon göstermekteydi.

Anahtar Kelimeler: Retrorektal mesafe, tailgut kisti, laparoskopik yaklaşım, her iki hastada otururken anal bölgede ağrı

Introduction

Retrorectal masses are rare lesions, usually with a prevalence of about 1 in 40.000.¹ These include tailgut cysts, which are well-defined masses, typically multicystic and non-encapsulated, and may be unilocular.² Although tailgut cysts are congenital lesions diagnosed in newborns, they may also be diagnosed in the fourth to sixth decades of life.³ They are more common in women.⁴ Half of all tailgut cysts are asymptomatic and are sometimes detected incidentally during examination.⁴ Due to their low prevalence and anatomic location, they are challenging both to diagnose and to treat surgically.⁵

Abdominal or anterior, transsacral or posterior, and combined abdominosacral approaches have been described in the literature. There are also a few reports of transvaginal and anorectal approaches,⁶ as well as patients managed with diversion colostomy.⁷ In our cases, we preferred laparoscopic surgery considering the benign nature of both our patients' lesions and the minimally invasive nature of the procedure.

Case Reports

Case 1

A 27-year-old female patient presented with a 1-year history of abdominal pain, especially in the pelvic region,



Address for Correspondence/Yazışma Adresi: Sadettin Er MD

University of Health Science, Ankara Numune Training and Research Hospital, Clinic of General Surgery/Colorectal Surgery, Ankara, Turkey

Phone: +90 505 779 79 29 E-mail: ersadettin74@gmail.com ORCID ID: orcid.org/0000-0003-0712-3153

Received/Geliş Tarihi: 11.07.2017 Accepted/Kabul Tarihi: 17.08.2017

and perianal pain that worsened when sitting. Her medical history was unremarkable except for idiopathic thrombocytopenic purpura and corticosteroid use. She was referred to our clinic after a pelvic mass was discovered in the lower abdomen during ultrasonography at another center. Contrast pelvic magnetic resonance (MR) revealed a 5.8x5.2x7.3 cm soft tissue lesion (suspected tailgut cyst) showing smooth contours and cystic structure with dense content. The mass was located in the presacral area, displacing the rectum anteriorly; the inferior aspect extended posterior of the anal canal and the superior aspect extended to the presacral/precoccygeal region (Figure 1). The patient's tumor markers were normal. After radiology and surgery consultation, the mass was diagnosed as benign tailgut cyst based on the absence of any malignant component or invasive signs and was laparoscopically excised (Figure 1, 2). No postoperative complications were observed and the patient was discharged one postoperative day 3. The pathology report indicated epidermoid cyst (tailgut cyst). The patient provided written informed consent for inclusion in this report.



Figure 1. Laparoscopic excision



Figure 2. The excised mass

Case 2

A 43-year-old female patient presented with complaints of perianal pain, especially during defecation and sitting, for the last 6 months. She had been diagnosed with a retrorectal lesion at another center and referred to our clinic. Pelvic MRI revealed a uniformly limited cystic (tailgut cystic) lesion 18x12x8 mm in size adjacent to the distal coccyx, anterior of the coccyx, and posterior of the rectum. The lesion showed intermediate intensity on T1-weighted images and no contrast enhancement following injection of intravenous contrast material (Figure 3). Tumor markers were normal. On rectal palpation, a smooth lesion was detected on the posterior surface of the rectum 4 cm cranial of the anal verge. Colonoscopy showed a lesion in the distal rectum thought to be of extraluminal origin, displacing the posterior rectum anteriorly. The lesion was considered benign and was removed by laparoscopic excision. The patient experienced no problems after surgery and was discharged on the second postoperative day. The pathology report indicated chronic inflammation as benign simple cyst (suspected tailgut cyst).

Discussion

The retrorectal (presacral) region is bordered anteriorly by the rectum, posteriorly by the sacrum and coccyx, superiorly by the peritoneal reflection, inferiorly by the vena cava levator ani and coccygeal muscles, and laterally by the iliac vascular structures and ureter.^{8,9} Retrorectal tailgut cysts, also known as retrorectal cystic hamartomas, are rare congenital lesions in the retrorectal space.¹⁰ These embryogenic cell-derived cysts can be classified as epidermoid cysts, dermoid cysts, neurogenic cysts, teratomas, and enteric cysts.^{11,12} Retrorectal cysts have also been described under various names including tailgut cysts, postanal intestinal cysts, mucus-secreting cysts, enterogenic cysts, simple cysts, myoepithelial hamartomas of the rectum, and retrorectal cystic hamartomas.¹³ The pathology report in our two cases

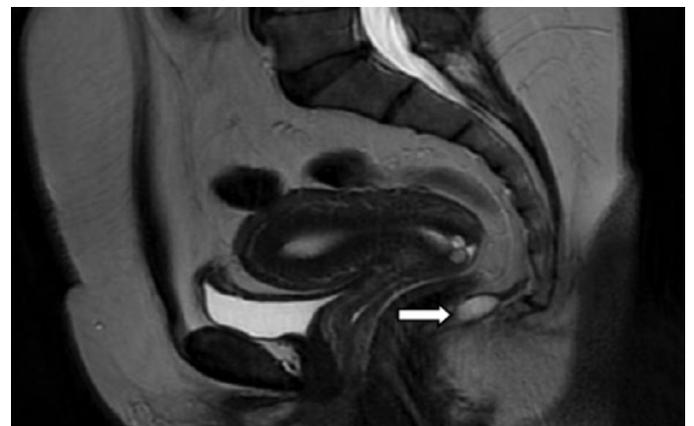


Figure 3. The retrorectal mass indicated with white arrow

indicated tailgut cyst and simple cyst, respectively. Tailgut cysts are usually asymptomatic in adults. Symptoms arise due to local effects of the mass on surrounding organs and include sensation of rectal fullness, constipation, painful defecation, lower abdominal and back pain, and dysuria.¹¹ There are cases in the literature of these masses occurring with recurrent anal sinus, fistula, or abscesses, but urine retention, changes in stool calibration, and rectal bleeding have also been reported.¹⁴ In both of our cases, the patients presented clinically with symptoms of pain in the anal region, especially when sitting. Although the majority of patients are asymptomatic, long-term symptoms may include alterations in bowel habits and perineal area pain.¹⁴ In both of our patients, the perianal pain experienced while sitting could be interpreted as a different clinical symptom. MR imaging (MRI) can help determine the relationship between the mass and surrounding tissues and distinguish between benign and malignant masses. Performing biopsy for retrorectal masses is a controversial issue. It is not recommended in the literature because it may increase the risk of disseminating potentially dysplastic cells.³ Imaging findings that support a diagnosis of malignancy are nodular wall thickness and thickening of the mass, intracystic vegetations, indistinct boundaries, cranial extension of the mass beyond S3, and lymphadenopathy.^{15,16} Preoperatively, MRI has critical importance in determining whether abdominal, transperineal, or a combined surgical approach will be optimal.¹⁵ The transperineal or transsacrococcygeal approach may be chosen for cases in which the mass is limited to the S3 level or inferior and shows no invasion of the pelvic lateral wall, bone, or viscera. However, abdominal or combined approaches are preferred for masses that invade adjacent tissues and exhibit features of malignancy on MRI.¹ We opted for laparoscopic (abdominal approach) surgery in both of our cases because their MRI findings were considered benign. In brief, tailgut cysts are congenital remnants of retrorectal cysts, the most common of the primitive hindgut, and can be symptomatic or asymptomatic. MRI is the most important tool in diagnosis and treatment planning. These lesions are usually benign and have good prognosis. Our cases differed from the literature in terms of clinical presentation in that both of our patients had complaints of pain in the anal region that increased while sitting. Considering the advantages of abdominal/laparoscopic surgery, such as reduced pain, early mobilization, and early return to work, we believe this approach is a good option for benign lesions such as these.

Ethics

Informed Consent: Consent form was filled out by the patients.

Peer-review: Internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: S.E., B.C.Y., Concept: S.E., Design: B.D.Y., Data Collection or Processing: S.E., D.T., Analysis or Interpretation: S.E., B.C.Y., B.D.Y., Literature Search: S.E., Writing: S.E.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

References

1. Chéreau N, Lefevre JH, Meurette G, Mourra N, Shields C, Parc Y, Tiret E. Surgical resection of retrorectal tumours in adults: long-term results in 47 patients. *Colorectal Dis* 2013;15:e476-482.
2. Prasad AR, Amin MB, Randolph TL, Lee CS, Ma CK. Retrorectal cystic hamartoma: report of 5 cases with malignancy arising in 2. *Arch Pathol Lab Med* 2000;124:725-729.
3. Akbulut S. Unusual cause of defecation disturbance: a presacral tailgut cyst. *Eur Rev Med Pharmacol Sci* 2013;17:1688-1699.
4. Joyse EA, Kavanagh DO, Winler DC. A rare cause of low back pain: report of tailgut cyst. *Case Rep Med* 2012;2012:623142.
5. Lin C, Jin K, Lan H, Zeng L, Lin J, Chen W. Surgical management of retrorectal tumours: a retrospective study of a 9 year experience in a single institution. *Onco Targets Ther* 2011;4:203-208.
6. Arenda -Narvaez JM, Gonzalez-Sanchez AJ, Montiel-Casado C, Sanchez-Perez B, Jimenez-Masure C, V alle-Carbozjo M, Santoyo- Santoyo J. Posterior approach (Kraske procedure) for surgical treatment of presacral tumours. *World J Gastrointest Surg* 2012;4:126-130.
7. Hjermstad BM, Helwig EB. Tailgut cysts. Report of 53 cases. *Am Clin Pathol* 1988;89:139-147.
8. Bullard Dunn K. Retrorectal tumours. *Surg Clin North Am* 2010;90:163-171.
9. Jain P, Hawkins S, King A, Tailgut cyst. *Australas Radiol* 1997;41:207-210.
10. Hutton KA, Benson EA. Case report: Tailgut cyst-assessment with transrectal ultrasound. *Clin Radiol* 1992;45:288-289.
11. Rossa G, Lolli P, Vergine M, El-Dalati G, Malleo G. Surgical excision of developmental retrorectal cysts: results with long-term follow up from a single institution. *Updates Surg* 2012;62:279-284.
12. Doyle D, Wyse G, Casey M, Kelly D. Answer to case of the month 109, Retrorectal cystic hamartoma. *Can Assoc Radiol J* 2006;57:179-181.
13. Kildusis E, Samalavicius NE. Surgical management of a retro-rectal cystic hamartoma (tailgut cyst) using a trans-rectal approach: a case report and review of the literature. *J Med Case Rep* 2014;8:11.
14. Bathla L, Singh L, Agarwal PN. Prem Narayan Agarmal, retrorectal cystic hamartoma(tailgut cyst): report of a case and review of literature. *Indian J Surg* 2013;75(Suppl 1):204-207.
15. Aflalo-Hazan Rousset P, Mourra N, Lewin M, Azizi L, Hoeffel C. Tailgut Cysts: MRI finding. *Eur Radiol* 2008;18:2586-2593.
16. Yang B-L. Retrorectal tumors in adults: Magnetic resonance imaging findings. *World J Gastroenterol* 2010;16:5822.