



Management of Perineal Epidermoid Cyst in a 20-year-old Female

20 Yaşında Bir Kadında Perineal Epidermoid Kist Tedavisi


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ABSTRACT

Epidermoid cysts are cutaneous or subcutaneous masses caused by the implantation of epidermal elements into the dermis. This case report presented an epidermal cyst of the perineum clinically mimicking endometriosis in a female patient. A 20-year-old virgo female patient was admitted to our clinic with complaints of severe pain, especially in the right leg, and postmenstrual bleeding for three years. In the transrectal ultrasound, a 54*39 mm cystic lesion with dense internal echo was detected in the medial neighborhood of the pelvic floor right obturator internus muscle. Since the cystic lesion detected in the contrast-enhanced pelvic MRI was evaluated as an epidermoid cyst and no significant endometrioma or endometriosis focus was detected, an operation was planned. Surgical excision should be performed not only for symptom relief and diagnosis but also to exclude rare malignancy. However, it is vital to master the pelvic and perineal anatomy along with careful surgery.

Keywords: Epidermoid cyst; perineum; surgery.

ÖZ

Epidermoid kistler, epidermal elemanların dermise implantasyonundan kaynaklanan deri veya deri altı kitlelerdir. Bu vaka raporunda, bir kadın hastada, klinik olarak endometriozisi taklit eden bir perine epidermal kisti sunulmaktadır. 20 yaşında virgo kadın hasta kliniğimize üç yıldır devam eden özellikle sağ bacakta şiddetli ağrı ve adet sonrası kanama şikayeti ile başvurdu. Transrektal ultrasonda, pelvik taban sağ obturator internus kas medial komşuluğunda 54*39 mm boyutlarında yoğun internal ekolu kistik lezyon saptandı. Kontrastlı pelvik MRG'de saptanan kistik lezyonun ön planda epidermoid kist olarak değerlendirilmesi ve belirgin bir endometrioma veya endometriozis odağı saptanmaması üzerine operasyon planlandı. Cerrahi eksizyon sadece semptomların giderilmesi ve tanı için değil, aynı zamanda nadir görülen maligniteyi dışlamak için de yapılmalıdır. Ancak, dikkatli cerrahi ile birlikte pelvik ve perineal anatomiye hâkim olmak hayati önem taşır.

Anahtar kelimeler: Epidermoid kist; perine; cerrahi.

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INTRODUCTION

Epidermoid cysts are cutaneous or subcutaneous masses caused by the implantation of epidermal elements into the dermis (1). The cysts are usually caused by the invagination of the keratinized squamous epithelium within the dermis. Epidermoid cysts are typically slow growing and solitary. Their size can vary from a few millimeters to several centimeters (2). These cysts are usually located on the face, scalp, neck, and trunk, and formations on the perineum are rare. Epidermoid cysts are much rarer in women than in men (3). In the differential diagnosis of perineal cysts,

abscess, pilonidal cyst, Gardner canal cysts, trauma, perianal dermatoses including anal canal cysts, benign teratomas, teratomas with malignant transformation, skin cancer, and endometriosis should be considered (4). This case report presented an epidermal cyst of the perineum clinically mimicking endometriosis in a female patient.

CASE REPORT

A 20-year-old virgo female patient was admitted to our clinic with complaints of severe pain, especially in the right leg, and postmenstrual bleeding for three years. In the transabdominal ultrasound performed on the patient, who was started on dienogest (Visanne) and later on estradiol valerate and dienogest combination (Qlarista) with a preliminary diagnosis of endometriosis in an external center, the uterus and ovaries were observed in a natural appearance. In the transrectal ultrasound performed with the patient's consent, a cystic lesion measuring 54*39 mm with intense internal echo was detected on the pelvic floor, in the medial neighborhood of the obturator internus muscle on the right. When the patient's CA125 value was 10.3 and CA19-9 value was 8.46, the cystic lesion identified in the contrast-enhanced pelvic magnetic resonance imaging (MRI) was evaluated as an epidermoid cyst in the foreground, and no significant endometrioma or endometriosis focus was detected (Figure 1). The operation was planned for the patient with the decision of the council consisting of the gynecology, general surgery, and radiology teams. Necessary consent was obtained from the patient before the operation.

After cleaning the abdomen and perineum, the patient was prepared in the lithotomy position and covered with sterile drapes. In the vaginal examination, a cyst of approximately 4-5 cm in size was palpated on the right lateral wall of the vagina. In the rectal examination performed by the general surgeon, it was determined that the cyst was distant from the rectum and anal sphincter and was not related. Therefore, it was decided to remove the cyst through the vaginal route. A longitudinal incision was made from the right lateral wall of the vagina. The cyst wall was reached by cutting the vaginal mucosa and paravaginal fascia, respectively. The cyst was separated from the surrounding tissues by blunt and sharp dissections. The cystic tissue was removed completely without any rupture (Figure 2). There was no active bleeding area in the cyst bed in the observation. The operation was terminated by primary suturing of the paravaginal fascia and vaginal mucosa. The patient was discharged on the first postoperative day, as her general condition was good.

In the examination made by the pathologists, it was stated that when the cyst material with a size of 6*5*3 cm, gray-brown, with soft elastic consistency, was opened, the gray-colored mash-like material was discharged. The final pathology result was reported as an epithelial inclusion cyst (keratinous cyst) (Figure 3).

Written informed consent was obtained from the patient for publication and images.

DISCUSSION

Epidermoid cysts are benign, slow-growing lesions that develop from the epidermal layer of the skin, which are much rarer in women than in men. They are most common in the third and fourth decades of life. The cysts usually

occur on the face, scalp, neck, and trunk but are rarely reported in the perineum. Mechanical pressure or minor trauma can cause epidermoid cyst development (5). The cyst can become inflamed or infected, causing pain, tenderness, and a foul-smelling cheese-like discharge. However, in a rare case of malignancy, rapid growth and



Figure 1. Transrectal ultrasound and magnetic resonance imaging of the epidermoid cyst



Figure 2. Surgical excision of the epidermoid cyst in the perineal region

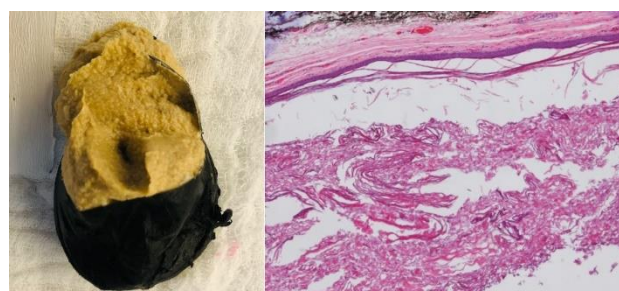


Figure 3. Macroscopic and microscopic view of epidermoid cyst

bleeding have also been reported (6). In female patients, epidermal cysts in the perineum may displace the anus and vagina and extend into the pelvic cavity adjacent to the rectum (7). Ultrasound, MRI, and CT can be used as imaging modalities in these patients. Imaging provides an idea about the relationship of this cyst in the perineum with neighboring anatomical structures and is very effective in managing the operation. Treatment of perineal epidermoid cyst is surgical excision with careful and meticulous dissection, taking precautions to prevent spillage of the contents and also not to damage nearby vital structures such as the perineal urethra and anal canal (3). Epidermoid cyst of the perineum has been reported rarely in a female patient in the literature (8-10). These patients are elderly female patients. In the literature, a case of clitoral epidermoid cyst has been reported in 2 patients aged 16 and 22 years (11,12). Epidermoid cysts can occur as vulvar lesions on the labia major and labia minora, and often large cases without a history of trauma have been reported. An 11 cm epidermoid cyst in the labia majora was presented in a 17-year-old girl with no history of trauma who complained of a painful and palpable mass (13). Gardner's duct cysts should also be considered in the differential diagnosis of perineal epidermoid cysts. Most of the time, the basic treatment for these cysts, which can be easily diagnosed by pelvic examination, is excision, which includes the complete removal of the cyst capsule. There are case series involving benign vaginal cyst excisions in the literature (14).

To the best of our knowledge, no case of epidermoid cyst has been reported in a young patient with a localization similar to our case. Surgical excision should be performed not only for symptom relief and diagnosis but also to exclude rare malignancy. However, it is vital to master the pelvic and perineal anatomy along with careful surgery. In this case, we presented our own surgical management of a rare epidermoid cyst of the perineum.

Informed Consent: Written informed consent was obtained from the patient for publication and accompanying images.

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REFERENCES

1. Nigam JS, Bharti JN, Nair V, Gargade CB, Deshpande AH, Dey B, et al. Epidermal cysts: A clinicopathological analysis with emphasis on unusual findings. *Int J Trichology*. 2017;9(3):108-12.
2. Kirkham N. Tumors and cysts of the epidermis. In: Elder DE, editor. *Lever's histopathology of the skin*. 8th ed. Philadelphia: Lippincott-Raven; 1997. p.685-746.
3. Ali SA, Tahir SM, Memon AS, Dahri AA. Epidermoid inclusion cyst of the perineum--a rare case report in a 50 years old male. *J Ayub Med Coll Abbottabad*. 2009;21(3):179-80.
4. Dahan H, Arrivé L, Wendum D, Docou le Pointe H, Djouhri H, Tubiana JM. Retrorectal developmental cysts in adults: clinical and radiologic-histopathologic review, differential diagnosis and treatment. *Radiographics*. 2001;21(3):575-84.
5. Briggs RM, Miller FW. Pigmented nevi and epidermal cysts: cause and effect. *Plast Reconstr Surg*. 1968;41(5):456-61.
6. Morgan MB, Stevens GL, Somach S, Tannenbaum M. Carcinoma arising in epidermoid cyst: a case series and aetiological investigation of human papillomavirus. *Br J Dermatol*. 2001;145(3):505-6.
7. Sakurai T, Mukai T, Kawachi H, Hiyoshi Y, Yamaguchi T, Nagasaki T, et al. Laparoscopic resection for a relapsed presacral epidermoid cyst penetrating the ischiorectal fossa. *Asian J Endosc Surg*. 2022;15(3):656-9.
8. Sumi Y, Yamamoto N, Kiyosawa T. Squamous cell carcinoma arising in a giant epidermal cyst of the perineum: a case report and literature review. *J Plast Surg Hand Surg*. 2012;46(3-4):209-11.
9. Sciaudone G, Di Stazio C, Guadagni I, Pellino G, De Rosa M, Selvaggi F. Retrorectal epidermoid cyst--a rare entity: the effectiveness of a transperineal posterior approach. *Acta Chir Belg*. 2009;109(3):392-5.
10. Al-Khattabi M, Chouillard E, Louboutin A, Fauconnier A, Bader G. Giant pararectal epidermoid tumor mimicking ovarian cyst: combined laparoscopic and perineal surgical approach. *J Minim Invasive Gynecol*. 2010;17(1):113-5.
11. Fedele L, Fontana E, Bianchi S, Frontino G, Berlanda N. An unusual case of clitoromegaly. *Eur J Obstet Gynecol Reprod Biol*. 2008;140(2):287-8.
12. Schmidt A, Lang U, Kiess W. Epidermal cyst of the clitoris: A rare cause of clitorimegaly. *Eur J Obstet Gynecol Reprod Biol*. 1999;87(2):163-5.
13. Karaman E, Çim N, Akdemir Z, Elçi E, Akdeniz H. Giant vulvar epidermoid cyst in an adolescent girl. *Case Rep Obstet Gynecol*. 2015;2015:942190.
14. Kısa Karakaya B, Kansu Çelik H, Keçecioglu M, Evliyaoğlu Ö, Sarıkaya E, Erkaya S. Retrospective analysis of benign vaginal cysts. *J Gynecol Obstet Neonatal*. 2016;13(4):168-9. Turkish.