Endometriosis in the Mesothelial Cyst of the Round Ligament: Atypic Manifestation and Unusual Location: Case Report

Round Ligamentin Mezotelyal Kistinde
Endometriyozis: Atipik Prezentasyon ve Nadir Lokalizasyon

ABSTRACT A mesothelial cyst of the round ligament is a rare developmental disorder which is often misdiagnosed as an inguinal hernia. Here, we report a case of a 25-year-old female with a mesothelial cyst of the round ligament presenting as a palpable mass. Magnetic resonance examination demonstrated that the mass was hipointense on T1-weighted images and hyperintense T2-weighted images. In addition, there were fine hipointense septations inside the mass on the T2-weighted series. In the right inguinal area, the cyst was resected and reported as a mesothelial cyst of the round ligament accompanying endometriosis.

Key Words: Endometriosis; hernia, inguinal; magnetic resonance imaging; round ligament


Anahtar Kelimeler: Endometriyoz; fıtık, inguinal; manyetik rezonans görüntüleme; halka ligaman

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CASE REPORT

A 25-year-old woman presented with a palpable and painful mass in her right inguinal region which had first appeared 1.5 years ago. Physical exa-
A complete and well-defined, multiloculated cyst was found arising from the distal end of the round ligament and protruding through the subcutaneous inguinal ring. The abdominal and pelvic peritoneum revealed no evidence of endometriosis. The round ligament and cyst were liberated and mobilized, and the distal end of the round ligament and adherent cyst were excised. In addition, the hernia sac was detected and defect repaired by prolene mesh (Lichtenstein technique).

The specimen consisted of a roughly cylindrical mass of tissue 7 x 2.5 x 1 cm, containing several cystic spaces (Figure 2). Histopathological examination revealed a cystic structure that was lined with flat epithelial cells which was immunohistocchemically stained with a mesothelium marker (Figure 3). In the serial section, small foci endometrial stroma and haemosiderin laden histiocytes were seen in subepithelial areas. In one focus, endometrial epithelium and gland were seen (Figure 4).

Informed consent was obtained from the patient.
In women, the round ligament attached to the uterus close to the origin of the fallopian tubes and the extension of the parietal peritoneum follows the round ligament as it passes to the inguinal canal through the internal ring.\textsuperscript{1-4} Nuck’s canal, a portion of peritoneum known in man as processus vaginalis, carries some layers of the abdominal wall to be incorporated in the round ligament.\textsuperscript{1,4-6} Careful perusal of standard textbooks in pathology and surgery fails to reveal any mention of this condition.

According to some authors, the development of a cyst of the round ligament depends on a flawed obliteration of Nuck canal. They claim that a round ligament cyst is the same disease as a cyst of the canal of Nuck. According to another theory, it involves the inclusion of embryonic mesenchymal elements or remnant during development of the round ligament.\textsuperscript{1,2} Mesothelial cyst of the round ligament is a rare lesion. Due to their location, it is readily understandable that they be mistaken for incarcerated inguinal or femoral hernia.\textsuperscript{1-4} In one third of patients, an associated inguinal hernia is present, so diagnosis can be difficult.\textsuperscript{7} In our case inguinal hernia was associated to mesothelial cyst of the round ligament.

The cyst of the round ligament and hydrocele of the canal of Nuck show same radiological presentation.\textsuperscript{1,4} In the literature, radiological findings, especially MRI findings in the hydrocele of the canal of Nuck, are described in a few cases, however, MRI findings of mesothelial cyst of the round ligament cyst have not been previously described.

Endometriosis in the inguinal region was first reported by Cullen in 1896 and the prevalence of endometriosis was found to be 0.3-0.6\% in women.\textsuperscript{8} Extrapelvic endometriosis presenting as a hernia is often unrecognized by surgeons and the diagnosis is frequently made during the histological examination. Endometriosis is typically seen as a homogenous hypoechoic focal lesion with diffuse low-level internal echoes on US.\textsuperscript{9} Haemosiderin and methaemoglobin deposits which were seen in endometriosis were also able to the detected on MRI. However, considering the finding of Yang et al. inguinal endometriosis also could be seen as a multicystic mass without an internal echo.\textsuperscript{10} In our case endometriosis was not detected by US or MRI. In our case, endometriotic stroma and haemosiderin laden histiocytes were seen as small foci during the microscopic examination. Endometrial gland was seen only in one focus in a small area.

In conclusion, the mesothelial cyst of the round ligament is a rare development disorder and it should be included in differential diagnosis of inguinal masses in women. In addition endometriosis should be suspected in the lesion of the round ligament.
REFERENCES


