Benign Brenner Tumor of Ovary: A rare Case Report Treated Laparoscopically

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Abstract

Brenner tumor is a rare ovarian tumor that is a part of the surface epithelial group of ovarian neoplasm. It is usually asymptomatic and most of the times it is an incidental pathological finding. Here we present a case report of a married woman presenting with acute abdomen.

Introduction:

Brenners Tumor is a rare benign tumor of ovary with average age of presentation after 40 years.[1] It constitutes 1.4-2.4 % of all ovarian tumors and has a predilection for postmenopausal women. Most are benign with less than 5% borderline and proliferating.[2]

History:

A 35 year old multipara presented to the casualty with acute pain in abdomen over left flank since morning . she had few similar episodes of chronic dull aching pain over left flank for the past 4-5 months. The was non radiating, not associated with menses and relieved with pain killers.

But this time the episode was acute

On admission her vitals were stable, except for tachycardia and general and systemic examination was normal.

A palpable mobile lump of about 10 × 6cm size was found at the pelvic region. On per speculum examination, vaginal wall and cervix were found to be normal. On per vaginal examination, uterus was normal in size, and a mobile lump 8 × 8 cm size was found anterior to the uterus. The USG finding showed a 10 × 10 cm well-defined lobulated right adenaxal mass suggestive of ovarian tumor. Ovarian dopplers were normal.

Her blood was sent for examination and an emergency TVS done.

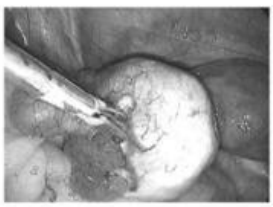

Figure 1 : Separating from Ovarian Tissue

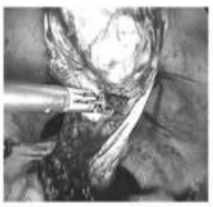

Figure 2 : Intraop Tumor with Ovary

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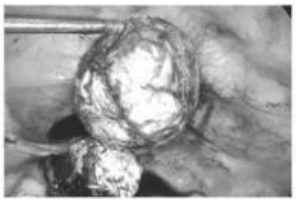

Management

Patient was taken for emergency laparoscopy.

Intraop findings showed an left ovarian tumor of 10 x 8 cm, with well lobulated solid consistency. There was no evidence of intraperitoneal haemorrhage. Right sided ovary and tube, left tube and uterus were normal. The cyst was removed. Postop was uneventful and patient discharged on post op day 2.

Histopathology:

Gross: Multiple grayish white tissue bits, firm in consistency.

Microscopy: Sections show solid nests of epithelial cells resembling transitional epithelium(urothelium) which are surrounded by abundant and dense fibroblastic stroma. The epithelial cells have sharply defined outlines with oval nuclei, having longitudinal grooves with clear cytoplasm. Nuclear atypia and stromal invasion are not seen. No evidence of malignancy. Benign Brenner tumor of Ovary.

Discussion:

Brenner tumor of ovary is a solid ovarian tumor that is generally asymptomatic. Although they are predominantly solid on imaging and pathologic examination, association with serous and mucinous cystadenomas is up to 30%.[3] It is usually an incidental pathological finding. Among symptomatic patients, common symptoms include vaginal bleeding, a palpable pelvic mass, and pelvic pain. Most of the time it is found to be unilateral. Bilaterality is seen only in 5-7% of the cases.[4] It is generally accepted that Brenner tumors are derived from the surface epithelium of the ovary or the pelvic mesothelium through transitional cell metaplasia to form the typical urothelial-like components.[5] The histological patterns observed in Brenner tumor are typically benign, with a few reports of borderline or malignant counterparts.[1]

It is difficult to diagnose Brenner tumor with imaging studies. USG and computed tomography, both the techniques are limited in specificity because of the tumor's nonspecific appearance.

In imaging studies benign Brenner tumors are generally similar to those of other solid ovarian masses such as fibroma, fibrothecoma, and pedunculated leiomyoma.[3]

Grossly benign Brenner tumors are well circumscribed, with a hard or fibromatous, gray, white, or slightly yellow cut surface. Occasionally the tissue becomes gritty because of calcific deposit. Borderline Brenner tumors are characteristically cystic and unilocular or multilocular with cauliflower like papillomatous masses protruding into one or more of the locules. Malignant Brenner tumor may be solid or cystic with mural nodules; they usually do not have any distinctive features.[6]

Microscopically, they are made of abundant dense fibrous stroma with epithelial nests of transitional cells resembling those lining the urinary bladder. The fibrous component is less prominent in borderline or malignant tumors than in benign lesions. Complex cystic tumors contain varying amounts of stroma and are more commonly found with borderline or malignant histologic findings, often in the form of papillary solid projections within a cystic mass.[7]

Most Brenner tumors are candidates for surgical resection. Because of their vividly circumscribed nature, they are easily located and do not typically affect surrounding tissue. Surgical resection is often curative and will reverse symptoms if they are present.

Malignant Brenner tumors may affect surrounding tissue and metastasize into other structures, but such incidents are so rare that a standard treatment has not been developed. Even malignant Brenner tumors, if diagnosed early, are usually candidates for complete surgical resection.

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