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## LETTER TO THE EDITOR

# Ovarian malignant Brenner tumor in patients over 65 years of age



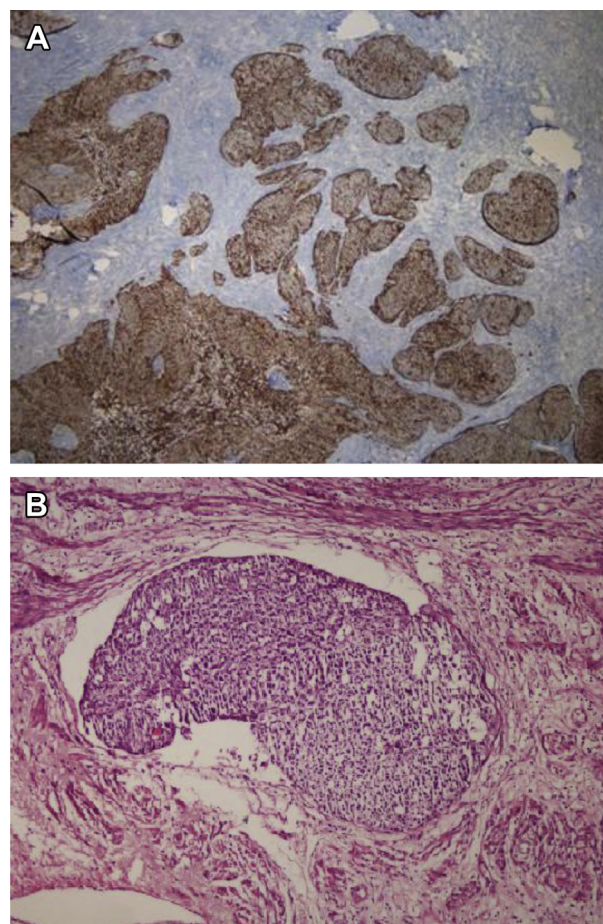
Dear Editor,

Brenner tumor is a rare ovarian tumor that may be benign, borderline, or malignant. Malignant Brenner tumor (MBT) accounts for only 2–5% of all Brenner tumors and is extremely rare in individuals over the age of 65 years [1].

**Case 1.** A 68-year-old female patient presented with abdominal distension. The patient had been postmenopausal for 27 years. Physical examination showed a left adnexal mass. Transvaginal ultrasonography showed an endometrial thickness of 6.5 mm and a solid mass with a diameter of 10 cm at the left adnexal region. CA-125 value was 103.5 U/mL. Total abdominal hysterectomy, bilateral salpingo-oophorectomy, pelvic and paraaortic lymph node dissection, and omentectomy were performed. The result of histopathological examination was a malignant Brenner tumor (Fig. 1A), simple endometrial hyperplasia, and endometrial polyp. There was omental metastasis. Immunohistochemistry staining results were positive for: WT-1, cytokeratin 7, calretinin, CA-125, Estrogen receptor (ER) 80%, Ki-67 60%, and p53 100% and negative for BerEp4, cytokeratin20, uroplakin, Progesterone receptor (PR), and p63. Chemotherapy was planned at the tumor board.

**Case 2.** A 76-year-old female patient presented with abdominal pain. The patient had been postmenopausal for 15 years. Computerized tomography scan showed an irregular mass with a size of 66 mm × 45 mm in the right adnexal region. Total abdominal hysterectomy, bilateral salpingo-oophorectomy, omentectomy, and lymph node dissection were performed via laparotomy. Histopathological examination revealed a malignant Brenner tumor. Immunohistochemistry staining results were positive for p63, cytokeratin HMW, Epithelial membrane antigen (EMA), and Ki-67 30% and negative for ER, PR, p53, cytokeratin 20, and WT-1. The lymphovascular invasions with CD31 and CD34 were found. Malignant Brenner tumor invasion was found in the uterus wall (Fig. 1B). Chemotherapy was planned at the tumor board.

The complaints of the patients with MBT are usually a present abdominal mass or pain. Borah et al. [2] reported a 45-year-old case and Yamamoto et al. [3] reported a 55-year-old case, whereas Gezginç et al. [4] reported a



**Figure 1.** (A) Cytokeratin 7 immunopositivity in a malignant Brenner tumor ( $\times 4$ ). (B) Malignant Brenner tumor invasion into the uterine wall ( $\times 10$ ).

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mean age of 55.6 years (the oldest being 79 years) in 13 cases. Brenner tumors have hormonal activity, and most of these tumors produce estrogen and hence may be associated with endometrial pathologies. The rate of endometrial hyperplasia was reported in 4–14% of the cases [5]. Endometrial hyperplasia was found in the first case. Surgical treatment is essential in the management of MBT as in other epithelial ovarian malignancies. Our first case presented with abdominal distention and the second case presented with abdominal pain. Our patients were 68 years old and 78 year old, respectively, and the second patient is one of the oldest patients in the literature. In conclusion, MBTs are rare and the available information on these tumors is mostly limited to case reports.

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