Malignant Brenner Tumor: Rare Case Report

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Introduction

Brenner tumors (BT) account for 1.4-2.5% of all ovarian tumors.

Only 1% are malignant. May be seen at any age

Surgical resection is the main treatment

Exact regimen and benefits of adjuvant therapy remain unknown

Case Report

57 years old, unmarried, postmenopausal lady presented with pain lower abdomen with ? vaginal bleeding

P/A- large soft mobile abdomino-pelvic mass reaching above the umbilicus.

Patient did not allow per speculum, per vaginal and per rectal examination

Brownish discharge from vagina present

Ultrasound whole abdomen: large complex cyst in lower abdomen approx 156 x 123mm (1323 ml volume) ?complex ovarian cyst ?loculated ascites .

CECT whole abdomen: 20 x 16 x 12cm complex cystic mass in abdomen, minimal ascites.

Tumor markers: CA125: 25.3U/ml, CEA: 2.05ng/ml, CA19.9: 0.60U/ml.

PET CT scan: Large complex abdominopelvic cystic mass 19.9x11.9x16.0 cm size with increase FDG uptake, SUV max-7.4.

Staging ovarian laparotomy was performed

Peroperative finding: Ascites present around 500ml, large mass in left adnexa around 25x20x15cm in size, solid cystic in nature. Uterus normal in size, no deposits in upper and lower abdomen.

Frozen section of intact mass was reported as malignant.

Total abdominal hysterectomy with bilateral salpingo-oophorectomy with bilateral pelvic and para-aortic nodes dissection and supracolic omentectomy done. Peritoneal biopsies were done for staging.

Patient was discharged in stable condition on post operative day 5

Histopathology: Tumor was characterized by varying numbers of rounded nests of transitional cells within abundant fibrous nonepithelial tissue (Fig a).

There was juxtaposition of areas of conventional Brenner tumor with infiltrative, frankly malignant cells (Fig b).

There was concomitant presence of both the malignant and benign/borderline BT with clear stromal invasion by the malignant epithelial components (Fig c).

Overall features favor Malignant Brenners Tumor.

Pathological staging was pT1aN0M0.

Immunohistochemistry (IHC) : Tumor cells were immunoreactive for Uroplakin, CK7, GATA 3, WT1 and Ki67 60% and non immunoreactive for CK20, favouring Urothelial differentiation .

Case was reviewed in tumor board, No adjuvant treatment. Patient is under follow up.

Discussion

Malignant Brenner tumors (MBTs) of the ovary are very rare Most Brenner tumors are benign, with only 1-2% being malignant

Their definition, biology and treatment modalities have not been clearly established.