

Serous Psammocarcinoma of Ovary: A Case Report with Review of Literature.

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Abstract : Serous psammomacarcinoma of ovary is a rare and infrequently described variant of ovarian cancer, characterized histologically by the presence of psammoma bodies. It is a rare ovarian tumor with classic radiological findings of multiple calcified lesions in the abdomen and pelvis. Till date, only 28 case reports have been published. We present the imaging features in one such case where there was a mass arising from ovary as well as metastases to the peritoneum and liver surface, the ligamentum teres, the lesser sac, and both paracolic regions, along with calcified deposits in the subcutaneous region, which have been rarely described.

INTRODUCTION

Serous Psammocarcinoma of ovary is a rare serous neoplasm characterized by extensive formation of psammoma bodies, invasion of ovarian stroma, peritoneum or intraperitoneal and other viscera including subcutaneous tissue.

CASE REPORT

A 65 year old female presented to our department with pain and distension of the abdomen for USG. USG revealed multicystic thick, irregular septated mass with solid components. Doppler study showed increased vascularity. CT showed large multiloculated cystic lesion having soft tissue components in the centre as well as in the periphery, extending from pelvis to umbilicus, soft tissue components shows calcification, multiple conglomerate, discrete calcified enhancing soft tissue lesions scattered in the mesentery, peritoneal region, gb fossa region, porta hepatis, along the inferior surface of the liver, along medial surface of the spleen, right subdiaphragmatic surface and bilateral gluteal region and right chest wall (mets) with ascites. CA125 was raised. Biopsy confirmed the diagnosis.

DISCUSSION

Psamocarcinoma of ovary is a rare serous neoplasm which can arise from both peritoneum and ovaries. Age ranged from 18 to 76 years. Aggressive debulking surgery has been the initial treatment modality in nearly all cases. Postoperative therapies have included observation, tamoxifen and cytotoxic chemotherapy (generally using cyclophosphamide with cisplatin or carboplatin)³. It commonly arises from the ovary but is also known to arise from the peritoneum⁴. It may mimic a calcified fibroma if the lesion is restricted to the pelvis. Histologically these tumors show classical psammoma bodies. Pathophysiologically, psammoma bodies are formed by deposition of mineral crystal on single, necrotic, degenerated tumor cells with progressive deposition on the outer layers, causing a lamellated appearance. Potential mechanisms responsible for the characteristic, extensive psammoma body formation include the accumulation of successive layers of calcium on single necrotic or degenerated tumor cells. In serous psammomacarcinoma of ovary, these psammoma bodies are associated with more than 75% epithelial cell clusters, with moderate cytological atypia and tissue or vessel invasion³. Biochemically, CA 125 is an important marker for ovarian carcinoma and is commonly elevated⁴.

Radiologically, this tumor has classic and pathognomonic features. There are calcified lesions in one or both ovarian mass with peritoneal or distant metastases, lesions also show calcification.

Differential diagnoses of such multiple calcified lesions in abdomen

are pseudomyxoma peritonei, undifferentiated abdominal malignancy, tuberculous peritonitis, meconium peritonitis, and mucinous adenocarcinoma of stomach.

Our patient also showed a mass arising from ovary as well as metastases in the peritoneum and liver surface, the ligamentum teres, the lesser sac, and both paracolic regions, along with calcified deposits in the subcutaneous region, which have been only rarely described⁴.



Fig 1 USG- abdomen showing multicystic thick, irregular



Fig 2: CT Pelvis: multiloculated cystic lesion having soft tissue components in the centre as well



Fig 3: CT Abdomen- multiple discrete calcified enhancing soft

CONCLUSION

Psamocarcinoma of ovary is a rare ovarian tumor with classic radiological findings of multiple calcified lesions in the abdomen and pelvis. The condition should be considered in the differential diagnosis when multiple calcified lesions are seen in the abdomen.

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