Mucinous Cystic Borderline Tumor of the Mesentery: A Case Report  
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INTRODUCTION

Mucinous Cystic Neoplasms (MCNs) can arise from the ovaries, pancreas, and other intra-abdominal sites but more unusually from the mesentery. These Mesenteric neoplasms are classified into benign cystadenomas, borderline tumors, and invasive carcinomas according to the presence of malignant features on histology. There are very few reported cases of mucinous cystic neoplasms of the mesentery in the literature. Borderline mucinous cystadenoma belongs to the histological spectrum going from benign forms (mucinous cystadenoma) to malignant ones (mucinous cystadenocarcinoma).

CASE-REPORT

A 33 Years old Female presented in our hospital with complaint of Pain in right side of abdomen for one year. On Examination, There was a palpable intra-abdominal lump of about 10 X 5 cm in right lumbar region extending to right iliac fossa. The lump was mobile horizontally but was not mobile craniocaudally. CT Scan of the abdomen and pelvis showed 14.6 X 8.9 X 7.9 cm well defined, thin walled, predominantly cystic mass in right lumbar region and right iliac fossa (Fig. 1). Exploratory Laparotomy was done and finding was a Cystic mass of 10.5 X 6.5 X 2.0 cm size in the mesentery of right colon adhered to Caecum and Appendix (Fig. 2). Enucleation of the cyst was done and histopathology report revealed Mucinous Cystic borderline tumor of the Mesentery (Fig. 3).

DISCUSSION

There are only fourteen Muscinous Cystic Neoplasms (MCNs) of mesentery in the literature prior to this report. Five of those originated from mesentery of small intestine, one from mesoaapendix, and seven from mesocolon. They are commonly detected incidentally but can present with chronic abdominal pain, distension, or an abdominal mass. These tumors pose a diagnostic challenge due to their lack of specific symptoms, biochemical markers, and radiological features.
According to the WHO classification (ICD 10), MCNs are divided into benign adenomas, borderline tumors, non-invasive (in situ) and invasive carcinomas. The malignant potential of all MCNs is supported by observations of malignant transformation of benign neoplasms during long term follow up.  

The origin of extra-ovarian MCNs has been sporadically attributed to implanted or ectopic ovarian tissue, supernumerary ovaries or mono-phyletic development of a teratoma component. A recent concept linked the development of hepatic and pancreatic MCNs to the migration of epithelial cells from the embryonic gonads during early fetal life. The most widely accepted theories for the pathogenesis of extra-ovarian MCNs include: Coelomic metaplasia of epithelial cells or invaginated peritoneum along the course of ovarian descent, mucinous metaplasia in pre-existing mesothelial cysts and neoplastic differentiation of epithelial cells from a secondary extragenital Mullerian system.

MCNs are histologically similar to ovarian mucinous cystadenomas. The cyst is composed of an outer wall of ovarian-like stroma consisting of spindle-shaped cells and myofibroblastic proliferation and an inner layer of mucin secreting columnar and cuboidal cells. The identification of ovarian like stroma on histological examination is diagnostic of mucinous cystadenomas, however, its absence does not preclude the diagnosis. Cysts of borderline malignancy display nuclear atypia and increased mitotic activity.

The management of this tumor includes complete enucleation with a long term follow up, especially when borderline foci are found, to prevent relapses or malignant degeneration. Excision can be by open or laparoscopic surgery, the latter being favored by a recent review of mesenteric cysts.

CONCLUSION

Mucinous cystic neoplasm of the Mesentery is rare. It should be considered as differential diagnosis for any cystic lesion in mesentery. They can be classified as benign cystadenomas, borderline tumors, and malignant carcinomas. Complete excision and full histological examination of a mucinous cystic neoplasm can exclude a borderline or malignant component. Because of its potential for transformation into malignant, long term follow up is necessary.

REFERENCES