

*Case Report***Colonic Cancer Marauding the Ovaries: A Rare Case Report of Synchronous Ovarian Metastasis from Colon Cancer**Sujata S. Giriyan¹, Nandini S. Nayaka²¹Professor and HOD, ²Post Graduate,
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*Received: 29/06/2015**Revised: 16/07/2015**Accepted: 20/07/2015***ABSTRACT**

Colon cancer with a synchronous ovarian metastasis is occasionally diagnosed at the time of laparotomy for a pelvic mass. This report describes the case of 35 years old female patient who presented with mass per abdomen since 2 months. Ultrasound abdomen showed an ill-defined heterogenous lesion measuring 14.8x10.2 cm in right adnexa with multiple thick septae? Malignant ovarian lesion with minimal ascites was made. The patient was presumed to have ovarian carcinoma for which she was taken for laparotomy. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. There was also rectosigmoid growth of size 4 x 3 cm infiltrating the left ureter which they found during laparotomy which was excised and sent for histopathology. Histomorphology of right ovarian tumor showed features of papillary mucinous cystadenocarcinoma and ulcerative growth of colon showed features of well differentiated adenocarcinoma. Immunohistochemistry revealed that the ovarian tumor and colonic tumor showed positive for CK20 and negative for CK7. These finding indicated that the tumor was an ovarian metastasis from colon cancer. We report this case of synchronous metastasis of ovary from colorectal cancer because of its unusual presentation at the same time.

Key words: ovarian carcinoma, colonic cancer, CK 20, CK 7.

INTRODUCTION

Colon cancer with a synchronous ovarian metastasis is occasionally diagnosed at the time of laparotomy for a pelvic mass and accounts for 3 to 8 %of women with primary colon cancer. [1] In general, ovarian metastasis from colon cancer is more frequently synchronous than metachronous and is difficult to diagnose preoperatively. However it becomes important to differentiate between primary ovarian cancer and ovarian metastasis to prevent inappropriate management. Here in we

report a case of 35 years women with synchronous metastasis from colon cancer.

CASE REPORT

A 35 years old female patient came with complaints of mass per abdomen since 2 months which was progressive in nature and associated with mild pain abdomen. There was also history of loss of appetite and weight.

On per abdomen examination pelvic mass was felt measuring 24-28cm in size, firm in consistency, had restricted mobility.

On per vaginal examination mass was felt separate from uterus. Posterior forniceal fullness was present and per rectum there was no mass felt.

Ultra sound abdomen showed a ill-defined heterogenous lesion measuring 14.8x10.2 cm in right adnexa with multiple thick septae? Malignant ovarian lesion with minimal ascites was made.

Cytology of ascitic fluid was done which showed 286cells/cumm of which were predominantly lymphocytes and few neutrophils. Laboratory tests also showed slight increase in CA 125 (56.48 u/ml).

The patient was presumed to have ovarian carcinoma for which she was taken for laparotomy, and was found that Right ovary was enlarged, multiloculate, around 30x30 cm. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed along with that they also found a constriction in the large bowel (sigmoid colon) associated with wall thickening. There was also rectosigmoid growth of size 4 x 3 cm infiltrating the left ureter at the lower end, causing gross left hydroureteronephrosis. There were multiple lymph nodes present around the growth. Tumor was excised with 4 cm margins at both the ends, distal end closed and colostomy was performed in left iliac fossa. The specimen was sent for histopathological examination.

On gross a resected specimen of colon measuring 12x6x3 cm, external surface showed stricture which was 2cm in length and was 7cm and 3cm from proximal and distal end respectively. Cut surface of the stricture area showed circumferential ulcerated growth with everted margins, ill-defined border, and floor appeared mucoid and was firm in consistency. There were also focal fibrotic areas present beneath the ulcer. Muscular layer appeared grossly intact.

An irregular mass 4cm away from proximal end in the mesocolon was noted measuring 4x3x1 cm. Cut surface showed 17 lymph nodes, largest measuring 2 cm in diameter. Specimen of omentum was also sent which measured 15x7x.5cm. A single lymph node was dissected from omentum measuring 0.5 cm in diameter.

Another specimen sent as right ovarian cyst, consisted of globular mass with attached fallopian tube, the mass measured 21x15x8cm, external surface was bosselated and showed congested blood vessels with solid to cystic areas. Cut surface drained hemorrhagic seromucinous fluid and revealed multiloculated cysts with solid areas showing papillary projections. Largest cyst measured 8cm in diameter.

A specimen of uterocervix with left adnexa measured 9x5x3cm. External surface of both uterus and cervix was unremarkable. Left adnexa measured 4cm in length, external surface and cut surface of fallopian tube was unremarkable. Left ovary measured 4x3x1 cm, cut surface showed of ovary showed two cysts, largest measuring 1 cm in diameter.

Histomorphology of ulcerative growth of colon showed features of well differentiated adenocarcinoma (fig 1a & 1b) infiltrating to muscularis propria, serosa and mesocolonic fat tissue, with deposits in 12 out of 18 lymph nodes with perinodal tumor extension.

Histomorphology of right ovarian tumor showed features of papillary mucinous cystadenocarcinoma (fig 2a&2b). Uterus and left ovary were unremarkable. Omentum showed no tumor deposits and lymph node was reactive.

Immunohistochemistry revealed that the ovarian tumor and colonic tumor showed positive for CK20 (fig 3a&4a) and negative for CK7 (fig4a&4b). These finding indicated that the tumor was an ovarian metastasis from colon cancer.

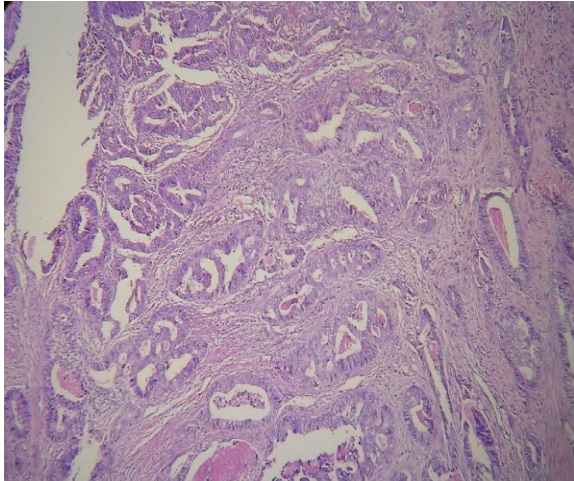


FIG (1) a: Low Power View of Well Differentiated Adenocarcinoma Colon.

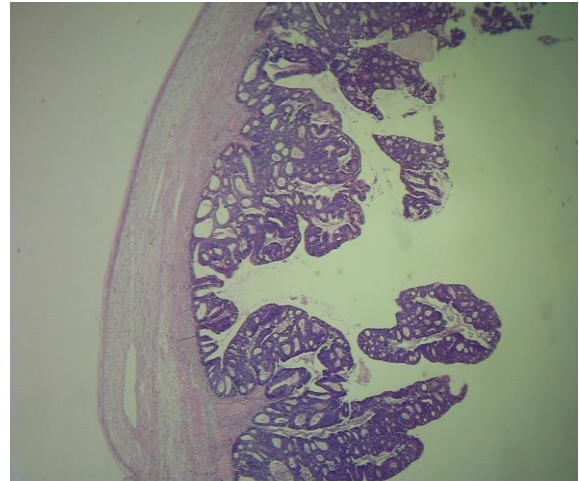


FIG (2) a: Low Power View Of Papillary Mucinous Cystadenocarcinoma Ovary (Hematoxyline and Eosin)

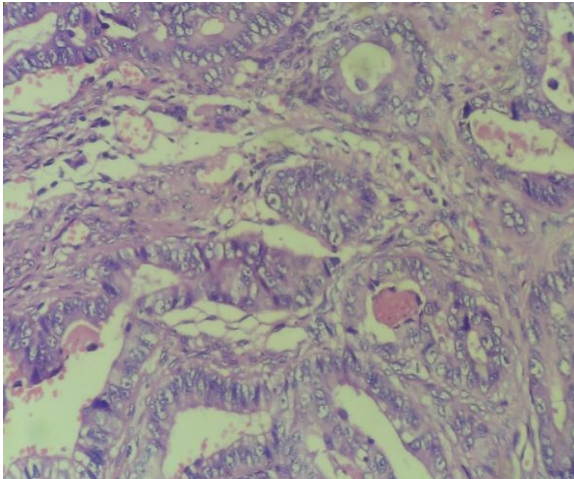


FIG (1) b: High Power View of Well Differentiated Adenocarcinoma Colon.

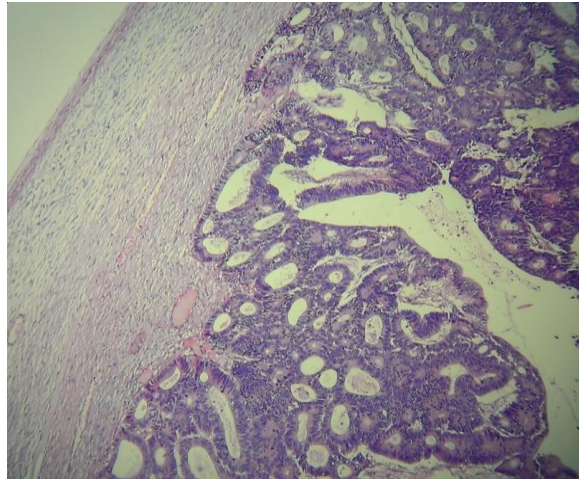
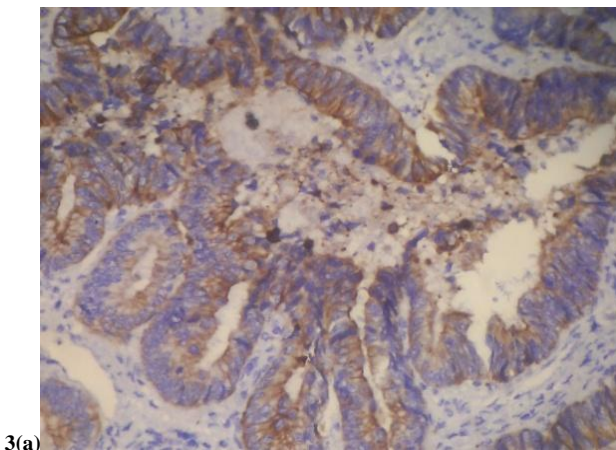
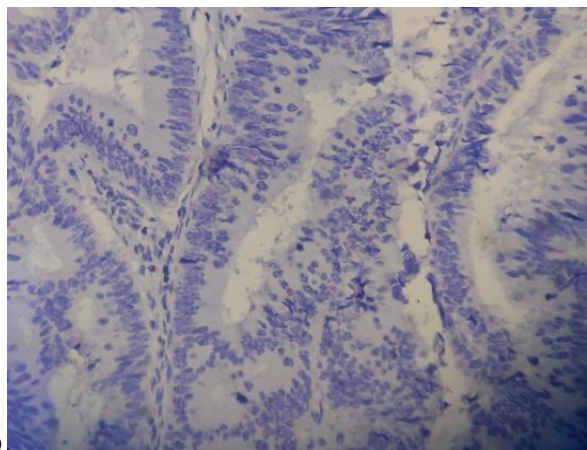


FIG (2) b: High Power View of Papillary Mucinous Cystadenocarcinoma Ovary (Hematoxylin and Eosin)



3(a)



3(b)

FIG (3): IHC Colon Cancer Showing Ck 20 Positive 3(A) and Ck 7 Negative 3(b).

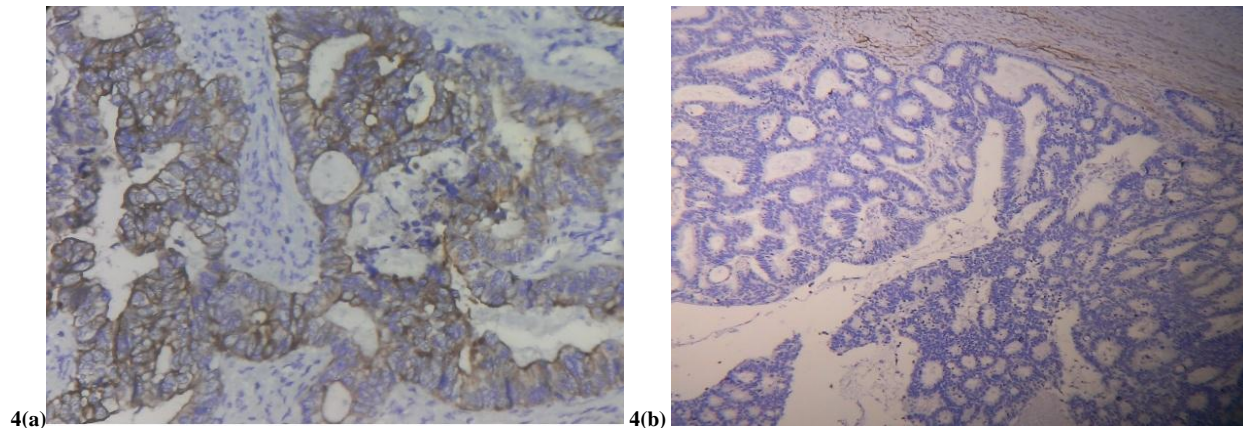


FIG (4): IHC Ovarian Tumor Showing Ck 20 Positive 4(a) And Ck 7 Negative 4(b).

DISCUSSION

5 %to 10% of all malignant tumors involving the ovary are metastasis and frequently mistaken for primary ovarian carcinoma. Most of the ovarian metastasis arises from the gastrointestinal tract and colonic adenocarcinoma accounts for 37% to 45%. [2] The distinction between the ovarian metastasis and ovarian primary becomes crucial for subsequent management. Since there are no specific radiological features that can differentiate between primary and metastatic ovarian masses, postoperative histopathology and a subgroup of cytokeratin markers have been very helpful in differentiating the primary and metastasis of colon. CK7 has been shown ubiquitously present in primary ovarian carcinoma but not in colorectal carcinoma. [3] In contrast, CK20 is well expressed in colorectal carcinomas and their metastasis, but usually absent in primary ovarian carcinoma, [4] other laboratory tests like CA125 is thought to be a prognostic and predictive tumor marker for primary ovarian tumors. [5] In our present case, based on the histology of the tumor and immunohistochemistry results for CK20 and CK7, We were able to diagnose the tumor accurately as ovarian metastasis from colon cancer. A previous report also found that all ovarian metastasis from gastrointestinal tract

cancer were adenocarcinoma, and 29% were mucinous-type adenocarcinoma. [6]

CONCLUSION

Macroscopic metastatic disease to the ovary is a poor prognostic factor in colon cancer. In selected patients who can be rendered disease-free by surgery, prolonged survival is possible and an aggressive approach is recommended. Survival of patients with peritoneal disease is short and a mainly palliative approach is recommended.

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