



Case report

Metastatic tumors in small intestine

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ABSTRACT

Abstract Malignant tumors of the small bowel are rare and accounts for the <2 % of total gastrointestinal (GI) malignancy. The age-adjusted incidence of small bowel malignancy is 1 per 100,000 with prevalence of 0.6% . Management of these tumors is challenging because of their rarity, relative inaccessibility for diagnosis and diverse histologic types and nonspecific symptoms. Because of the heterogenous and aggressive nature many of them present with recurrence and visceral metastasis. They also have a poor prognosis because most patients present with advanced disease. Here we present four cases of intestinal metastasis

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Introduction

Metastatic tumors involve the small bowel often in the form of multiple polypoid masses. These lesion may result in obstruction or perforation, necessitating palliative resection. The most common types of tumor metastasizing to the small bowel are malignant melanoma, carcinoma from lung, breast, ovary and carcinoid [1,2].

Here we present four cases of intestinal metastasis

CASE REPORT:

Case 1-A 43 year old male presented with Pain abdomen and ileal perforation

MACROSCOPY: Intestinal biopsy measuring 2.5x2cm, pale white to yellow in color

MICROSCOPY: Ileal mucosa lined by tall columnar epithelium. Submucosa shows tumor tissue comprised of tumor cells arranged in nests, trabeculae & cords. Individual cells have round to oval hyperchromatic nucleus & abundant clear cytoplasm. (Fig1)

IHC-CD10 positive (Fig2)

IMPRESSION: Metastatic Renal cell carcinoma-Ileum

Case 2

A 45 year old female presented with Pain abdomen and burning micturition

MACROSCOPY: A segment of intestine measuring 18cm with an exophytic growth measuring 4x3x2cm seen extending upto serosal surface.

Cut section of growth-solid, grey-white with adjacent intestinal mucosa showing loss of rugosities.

MICROSCOPY: Serosa, muscularis and submucosa shows tumor tissue arranged in papillary pattern, diffuse sheets and cords. These papillae are complex, branching & have fibrovascular core, show stratification & are lined by round to oval cells with round to oval hyperchromatic nucleus, increased N/C ratio. 1-2 prominent nucleoli & moderate cytoplasm. mitotic activity 6-8/hpf (Fig 3 and 4)

IMPRESSION: High grade papillary serous cystadenocarcinoma

Case3

A 55 year old female presented with Pain abdomen, yellow discoloration of sclera & itching

MACROSCOPY: A segment of intestine measuring 24cm with circumferential growth measuring 4x1.5cm. Cut section of growth-solid, homogenous, grey-white, friable

MICROSCOPY: Tumor tissue is comprised of irregular glands, few lined by pleomorphic cells with pleomorphic nuclei & prominent nucleoli & abundant mitotic figures is seen infiltrating the serosa. Majority of glands have abundant mucin material in the lumen. Dense desmoplastic reaction is seen surrounding the glands (Fig 5 and 6)

IMPRESSION: Metastatic mucinous adenocarcinoma from ampulla of Vater

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Case 4

MACROSCOPY:A segment of the intestine measuring 30cm with an endophytic,nodular growth seen protruding in the intestinal lumen measuring 7.5x5x2cm

MICROSCOPY:Submucosa shows tumor tissue comprised of two components,one composed of spindle shaped cells arranged in interlacing bundles & fascicles Individual cells have high N/C ratio with pleomorphic hyperchromatic nucleus & scant cytoplasm.Other composed of round to oval cells arranged in nests & sheets having cells with pleomorphic hyperchromatic nucleus & clear cytoplasm.(Fig7) IHC:CD117 positivity

IMPRESSION: Malignant gastrointestinal stromal tumors

Fig1:Metastatic RCC-ileum

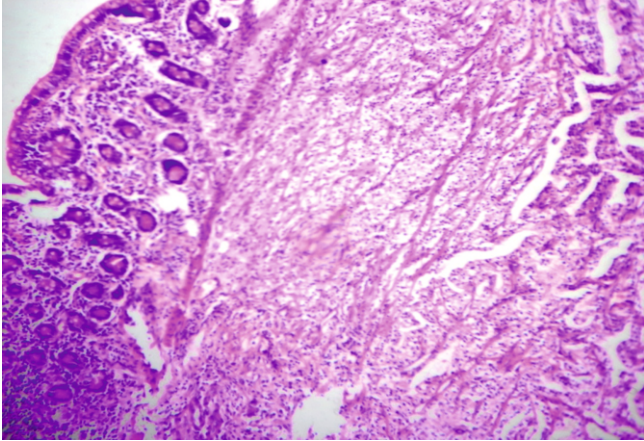


Fig2:CD10 positivity

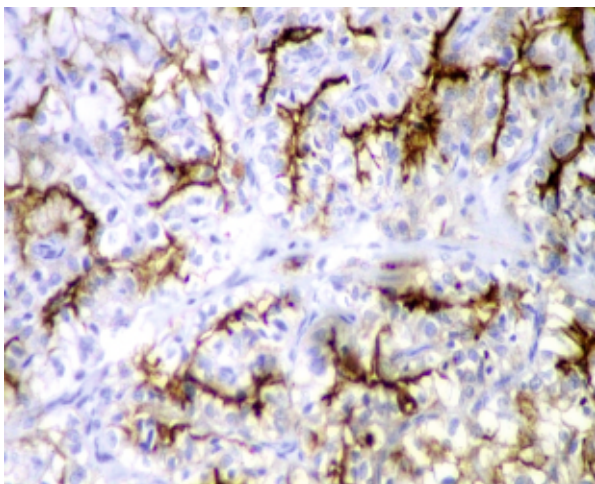


Fig3: Papillary serous Cystadenocarcinoma in Intestine

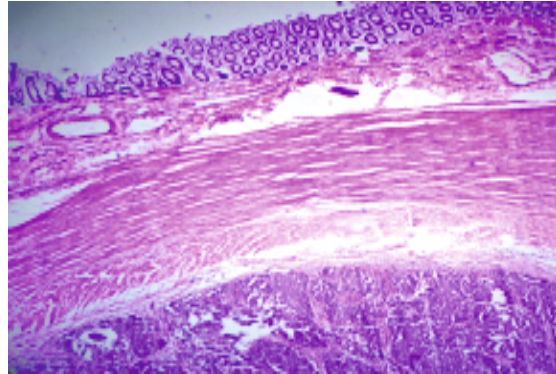


Fig4: High power view of a complex papillae

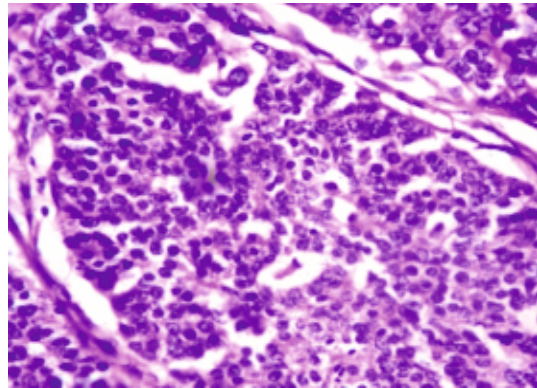


Fig 5: Metastatic mucinous adenocarcinoma from ampulla of vater

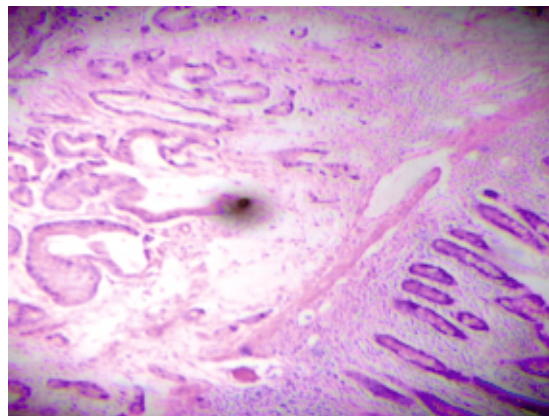


Fig 6:High power view of mucinous adenocarcinoma

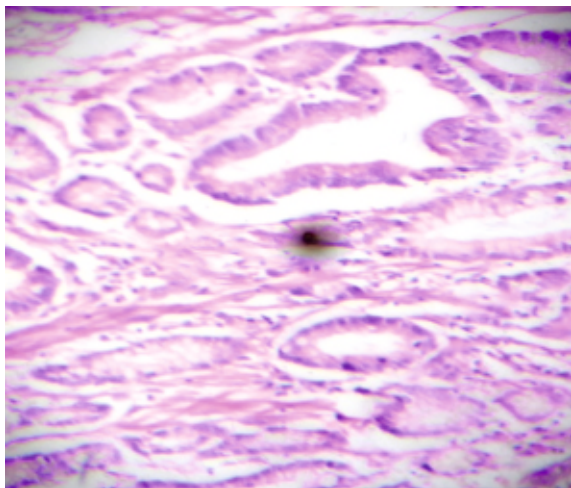
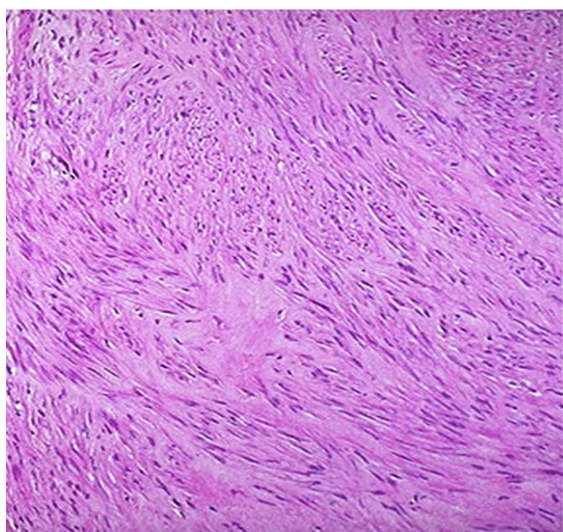


Fig7:Malignant Gastrointestinal tumor(40X)



A Metastatic lesion is often suggested by presence of a neoplastic mass that primarily occupies the submucosa, muscularis propria and serosa and leaves overlying mucosa intact. These patients often have poor prognosis as they present in advanced stages of the disease [5].

References

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DISCUSSION

Intestinal metastasis from ovary and breast are more common in female whereas GIT and lung tumors are more common in males. Blanchard et al suggested that the most common mode of involvement is peritoneal seeding. Baines M et al studied that the small bowel is more commonly involved than the large bowel (61% vs. 33%) and both are involved in over 20% of ovarian cancer patients. Roviello F et al reported that renal cell carcinoma metastatic to intestine is rare & till now only seven cases have been reported in literature. Immunohistochemistry is useful in diagnosis of such cases. Early diagnostic facilities, intensive chemotherapy and timely surgical treatment is necessary to manage these cases [3].

CONCLUSION

Metastasis to the small intestine is uncommon. It is difficult to diagnose these neoplasms as they present with non-specific symptoms [4].