

SYNCHRONOUS BOWEL TUMORS - LESIONS UNCOMMON AND RARELY DIAGNOSEDKarn Bhardwaj¹, Kavita Bhardwaj²¹Consultant Pathologist, Department of Pathology, Saroj Super Specialty Hospital.²HOD, Department of Pathology, Saroj Super Specialty Hospital.**ABSTRACT****INTRODUCTION**

An unusual case of synchronous small and large bowel adenocarcinoma is presented in a 64 year old female. Adenocarcinoma is the most common type of small bowel cancer constituting 32-54% of all malignant enteric tumors. Primary tumors of the small bowel are rare, and the diagnosis of primary adenocarcinoma of the small bowel in the presence of primary adenocarcinomas of the large bowel requires a high degree of suspicion. A case of synchronous primary adenocarcinomas of the small and large bowel in a patient, extensively investigated for abdominal discomfort and weakness, is presented.

KEYWORDS

Synchronous tumors, Colon, Jejunum, Adenocarcinoma.

KEY MESSAGES

Adenocarcinoma is the most common type of small bowel cancer constituting 32-54% of all malignant enteric tumors. Their distribution in the small intestine is regarded to have a proximal predisposition with decreasing frequency in the distal segments.

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INTRODUCTION: The incidence of synchronous adenocarcinomas of small and large bowel ranges from 0.6% to 11% as reported by various authors.¹ Primary adenocarcinoma of the small bowel are rare tumors and account for less than 1% of the intestinal malignancies, despite the small intestine contributing to almost 90% of the mucosal surface of the intestinal tract.^{1,2} In sporadic colorectal cancer, the frequency of synchronous cancers is approximately around 3.5% and up to 10-20% in patients who have cancer associated with familial adenomatous polyposis (FAP), hereditary non-polyposis colorectal cancer (HNPCC) and chronic ulcerative colitis.³

CASE HISTORY: A 65 year old female was admitted to our hospital with a 5 month history of pain abdomen, altered bowel habits and generalized weakness. The patient had visited many clinics for her complaints but to no relief. She had a past history of respiratory Koch's and had undergone hysterectomy 5 years back, for post-menopausal bleeding. There was no history of any malignancies in the family. On examination she was found to have pallor, mild abdominal tenderness and ascitis. She underwent a CT scan which revealed a probable malignant growth in the transverse colon. She was subsequently planned for a radical transverse colectomy. However, intraoperatively she was found to have another annular growth in the jejunum and therefore the procedure was extended to include radical jejunum resection

and omentectomy along with duodeno-jejunum anastomosis and ascending-descending colon anastomosis.

The histopathological examination of the specimen of the colon showed a large polypoidal mass lesion in the lumen showing features of adenocarcinoma, invading the muscularis propria. The specimen of jejunum showed a concentric lesion about 2 cm in length which revealed adenocarcinoma invading into the inner half of jejunum wall (Figures 1 & 2). Surprisingly, lymph node involvement was not seen in the 15 lymph nodes dissected. The margins of both resections were tumor free.

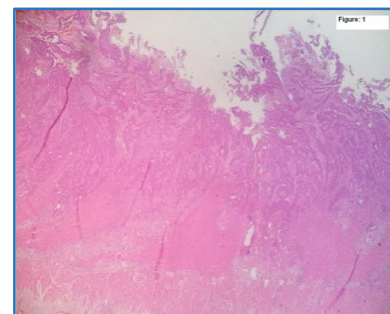


Fig. 1: H&E 4x showing wall of colon with tumor tissue

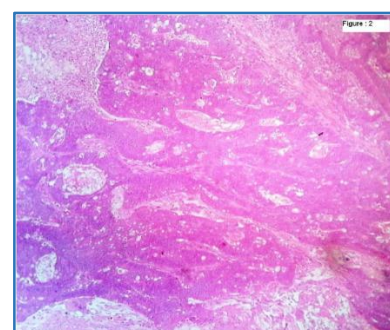


Fig. 2: H&E 10x tumors tissue arranged in glands

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DISCUSSION: An unusual case of synchronous small and large bowel adenocarcinoma is presented in a 64 year old female. The rarity of the small bowel tumors and non-specific symptomatology render their preoperative diagnosis difficult. There are two pathways identified in the pathogenesis of sporadic colorectal cancer, namely the chromosomal instability (CIN) and microsatellite instability (MSI) pathways.⁴

Adenocarcinoma is the most common type of small bowel cancer constituting 32-54% of all malignant enteric tumors.⁵ Their distribution in the small intestine is regarded to have a proximal predisposition with decreasing frequency in the distal segments.⁶ In a study by Reiner, of the 1050 case reports collected, showed a similar pattern of decreasing aboral gradient: 40% duodenal, 38% jejunum and 22% ileal.⁷ The higher incidence of duodenal tumors is due to the high incidence of carcinoma of the ampulla of Vater in the region.

Various studies have shown that there is a high frequency of synchronous and metachronous neoplasms associated with small intestinal carcinomas.⁸ Ouriel and Adams⁹ reviewed a series of 65 cases of adenocarcinoma of small intestine and found that associated malignancies were present in 16 patients. Of these, 12(75%) patients had colonic adenocarcinoma. In another study, multiple primary malignancies were found in 20-25% of enteric cancers.⁷ Due to the complex small bowel loops and the multiple air fluid levels, the small bowel adenocarcinomas are often missed.¹⁰

CONCLUSION: The incidence of synchronous colonic and small bowel carcinomas is increasing as suggested by the literature. We suggest that the surgeons should do extensive radiological and enteroscopy/colonoscopy to search for

synchronous tumors. Also the histopathologist should keep this in mind and always search for any coexisting tumors in the tissue specimen submitted by a close and thorough gross and microscopic examination.

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