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Case Report

Neuroendocrine Carcinoma of Colon & Rectum-A Case Series

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Abstract: Neuroendocrine carcinoma (NEC) comprises 0.6% of colorectal neoplasms. Average age at diagnosis of colorectal NEC is 61.5 years (sixth and seventh decade). NEC is more common in rectum followed by caecum, sigmoid colon and ascending colon. We report here four cases of colorectal neuroendocrine carcinoma on resection specimen and/or biopsy retrieved from archives of department of pathology of Dharamshila hospital and research centre from year 2011 to 2014.
Keywords: Neuroendocrine carcinoma, colon, rectum

INTRODUCTION

Neuroendocrine carcinoma (NEC) of the colon and rectum arise from the amine precursor uptake and decarboxylation (APUD) cells of the intestine. NEC comprises 0.6% of colorectal neoplasms. Average age at diagnosis of colorectal NEC is 61.5 years (sixth and seventh decade). Male: female ratio is 1:1. NEC is more common in rectum followed by caecum, sigmoid colon and ascending colon [1, 2].

OBSERVATION

Four cases of patients diagnosed with colorectal neuroendocrine carcinoma on resection specimen and/or biopsy are retrieved from archives of department of pathology of Dharamshila hospital and research centre from year 2011 to 2014. Details of cases like clinico-radiological diagnosis, site of tumor, histo-morphological and immunohistochemistry features are mentioned in the Table 1.

Table-1: Clinico-radiological presentation, site of tumor, histo- morphological and immunohistochemistry features.

S. No.	Age / Sex	Clinical presentation	Site of tumor	Radiological findings	Histopathological finding	IHC
1	55/F	Pain in abdomen, watery stools	Ileocaecal junction	**CT-**circumferential wall thickening in ileocaecal junction	Neuroendocrine carcinoma **pT3N2Mx**	CK, NSE, Synaptophysin, Chromogranin **+ve**
2.	54/M	Painless bleeding P/R since 5 months	Rectum **Sigmoidoscopy** – ulceroproliferative circumferential rectal growth	**CECT-** Circumferential growth in rectum with perirectal fat stranding **PET CT-** multiple FDG avid sclerotic and lytic bony lesions and also in liver	Neuroendocrine carcinoma **pT2 N1 Mx**	CK, CEA, CK7, NSE, Synaptophysin, Chromogranin **+ve** Donot express CDX2
3.	52/M	Perianal pain, mass	Anus **Sigmoidoscopy**	**CT-** diffuse left lateral anal wall	Poorly differentiated	CK, NSE **ve+** Synaptophysin &

		protruding P/R	– Nodular lesion in anus	thickening	carcinoma with neuroendocrine differentiation	chromogranin **ve -**
4.	68/F	Bleeding per rectum	Rectum	**CT-** minimal wall thickening in rectum causing narrowing	Adenocarcinoma with focal neuroendocrine differentiation **pT3N2bMx**	CK, NSE Synaptophysin **+ve** & chromogranin **-ve**

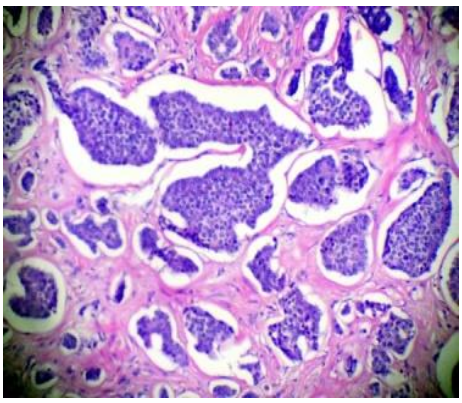

Fig-1: Photomicrograph showing organoid pattern of neuroendocrine carcinoma (H & E 100x)

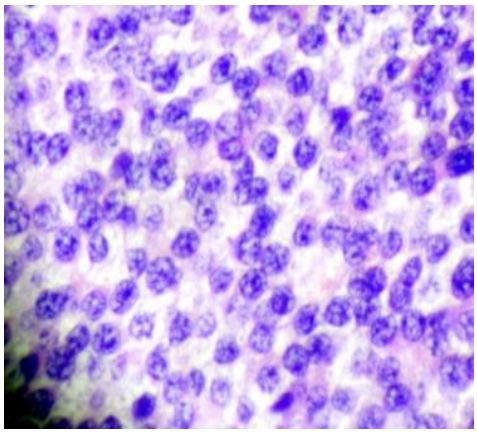

Fig-2: Photomicrograph showing characterstic salt and pepper chromatin of cells (H & E 400x)

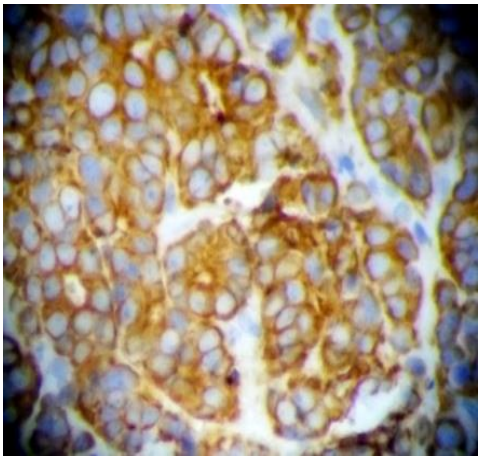

Fig-3: Photomicrograph showing synaptophysin expression by tumor cells (IHC 400x)

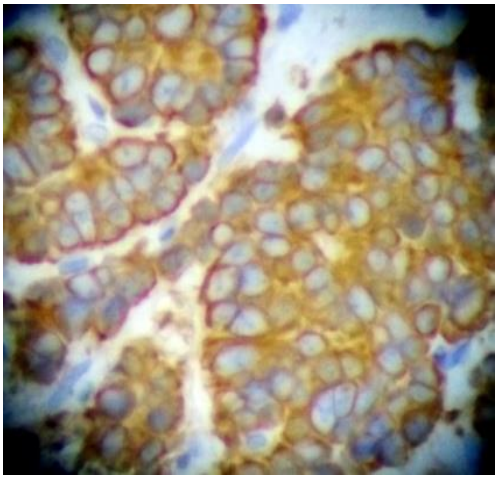

Fig-4: Photomicrograph showing chromogranin expression by tumor cells (IHC 400x)

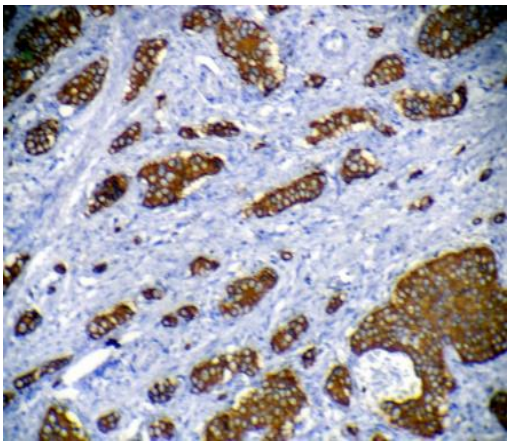

Fig-5: Photomicrograph showing ck expression by tumor cells (IHC 100x)

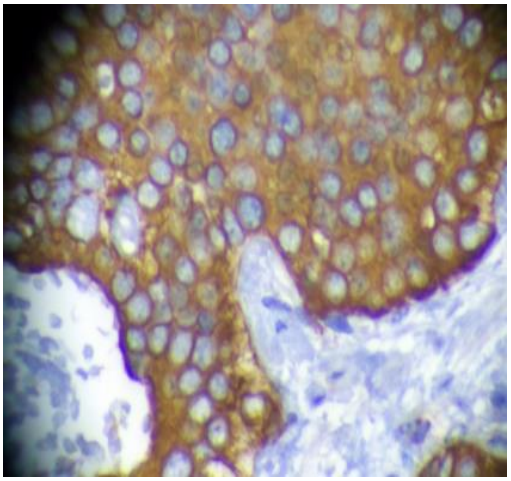

Fig-6: Photomicrograph showing nse expression by tumor cells (IHC 400x)

DISCUSSION

NECs are aggressive neoplasms and symptomatic patients with colonic NEC present with symptoms of abdominal pain, weight loss and rectal NEC presents with bleeding, pain or constipation. NEC are high grade tumors (grade 3) commonly arise in association with adenoma or adenocarcinomas. Compared with adenocarcinoma, patients with neuroendocrine carcinomas have poorer prognosis with median survival less than 1 year [3]. Correct diagnosis is important because it will affect treatment and prognosis.

CONCLUSION

Neuroendocrine carcinomas present with indolent symptoms and hence they are detected at very late stage. Therefore their detection by clinico-radiological diagnosis, histo- morphological features and by immunohistochemistry plays important role in its diagnosis. (Fig. 1,2,3,4,5,6)

REFERENCES

1. Anthony LB, Strosberg JR, Klimstra DS, Maples WJ, O'Dorisio TM, Warner RR, et al.; The NANETS consensus guidelines for the diagnosis and management of gastrointestinal neuroendocrine tumors (nets): well-differentiated nets of the distal colon and rectum. Pancreas, 2010; 39(6), 767-774.
2. Wang AY, Ahmad NA; Rectal carcinoids. [Review]. Curr Opin Gastroenterol, 2006; 22(5): 529-535.
3. Modlin IM, Lye KD; A 5-decade analysis of 13,715 carcinoid tumors. Cancer, 2003; 97(4): 934-959.