

**PRIMARY SQUAMOUS CELL CARCINOMA OF CAECUM PRESENTING IN A FEMALE: A CASE REPORT****Sunita A. Bamanikar\*<sup>1</sup>, Padmakar Bardapurkar<sup>2</sup>, Harsh Kumar<sup>3</sup> and Archana Buch<sup>4</sup>**

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Article Received on 03/12/2016

Article Revised on 25/12/2016

Article Accepted on 15/01/2017

**ABSTRACT**

Primary squamous cell carcinomas of colon are very uncommon tumor, majority of them are adenocarcinomas. Squamous cell carcinomas of colon have a male preponderance and carry poor prognosis. We report a case of primary squamous cell carcinoma of colon in a 65-years-old female treated by surgery. Surgical resection and adjuvant chemotherapy is better approach to treat colonic SCC.

**KEY WORDS:** Squamous cell carcinoma, caecum, surgery.**INTRODUCTION**

In cancer related deaths colorectal cancer is the third most common cause in the world <sup>[1]</sup>. Primary squamous cell carcinoma of the colon is a very rare tumor <sup>[2,3]</sup>. Its incidence ranges from 0.1 to 0.25 per 1000 colorectal neoplasm. <sup>[1]</sup> Most of the primary colonic carcinomas are adenocarcinoma. <sup>[4]</sup> The first case of squamous cell carcinoma of colon (SCC) was reported in 1919 by Schmidtman. <sup>[2,5]</sup> We report here a patient with squamous cell carcinoma of the colon who underwent resection anastomosis for treatment of the malignancy.

**CASE PRESENTATION**

A 65-years-old female presented in May 2016 with the chief complaints of loose motion, vomiting and abdominal pain since two months. There was no history of bleeding, icterus, clubbing or lymphadenopathy. There was no family history of colonic malignancy. Abdominal examination revealed scaphoid abdomen, umbilicus was normal in size and shape. There were no dilated veins or visible swelling seen. On palpation, abdomen was soft with tenderness in right hypochondrium, epigastric, umbilical and bilateral lumbar region. There was no guarding and rigidity. There was no organomegaly seen. Gastric endoscopy done showed severe antral gastritis. X-ray erect abdomen revealed gaseous distension of large bowel loops with diameter approximately 4.5-5cms. There was no evidence of air-fluid levels. Pheboliths/fecoliths were noted in pelvis. Abdominal and pelvis computerized tomography (CT) showed small bowel obstruction due to homogeneously enhancing circumferential mural

thickening of caecum measuring 1.17 cm. suggestive of neoplastic etiology [Figure 1].

Exploratory laparotomy with right hemicolectomy and anastomosis was done. At surgery small bowel was grossly dilated up to ileocaecal junction. Caecum and ileocaecal junction were found to be in sub-hepatic position. There was evidence of hard circumferential growth arising from ascending colon infiltrating into parietal peritoneum. Six months follow up of the patient was unremarkable.

**Gross Pathology**

The resected segment of colon with attached pericolic fat measured 13cms in length. Appendix with mesoappendix was 3.5cms in length. Saucer-like tumor mass of size 3 x 2.5cms was seen in the caecum [Figure 2]. There were no lymph nodes identified.

**Microscopy**

Histopathological examination of the tumor mass revealed a moderate to well differentiated keratinizing squamous cell carcinoma arising from the large bowel mucosa [Figure 3]. The tumor cells showed abundant eosinophilic cytoplasm and scattered keratin pearl formation [Figure 4]. The tumor was seen infiltrating the muscle layer and extending into the pericolic fat. Extensive sectioning revealed no evidence suggestive of adenocarcinoma and mucicarmine stains done were negative. Tumor cells showed positivity for cytokeratin (CK) 5/6 on immunohistochemical staining [Figure 5].

The remainder of the colon and the margins of resection were free of tumor.



**Figure 1:** Axial CT post contrast image shows homogeneous enhancement in the caecum region with mural wall thickening.



**Figure 2:** Image showing saucer shaped malignant tumor on mucosal surface of caecum.

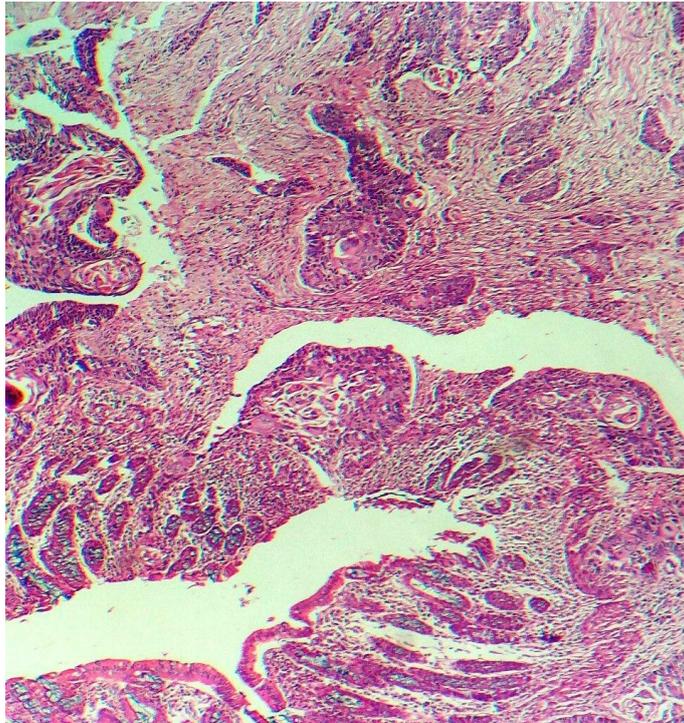


Figure 3: Microphotograph showing keratinizing squamous cell carcinoma cells arising from the large bowel mucosa (H&E, x100).

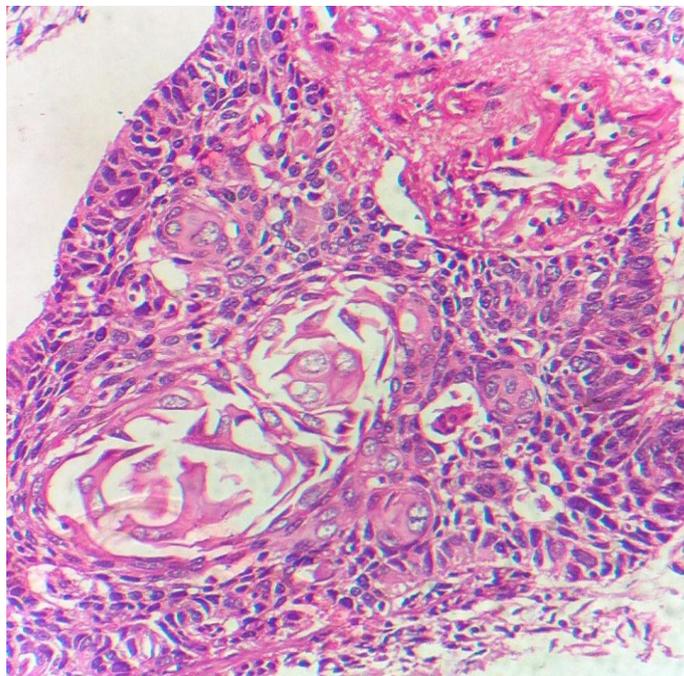
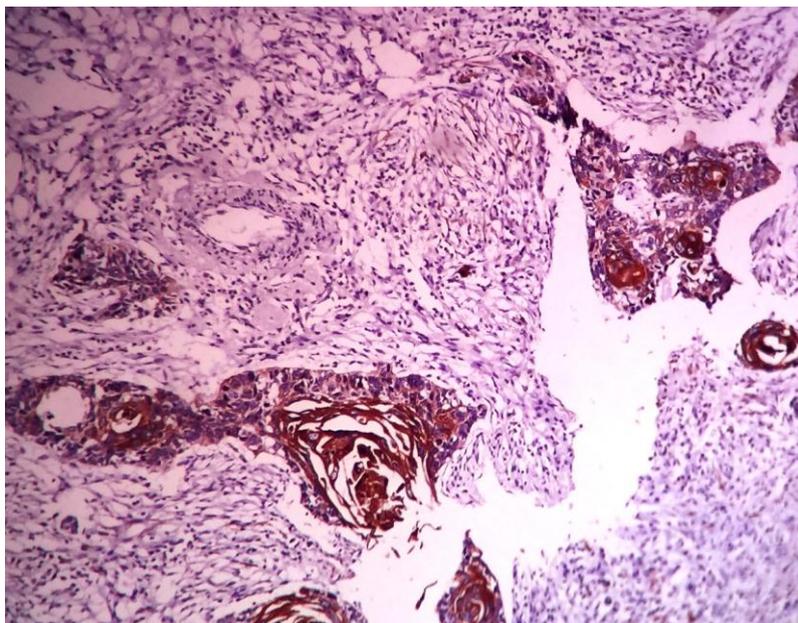


Figure 4: A high power view of the tumor, showing squamous differentiation and typical pearl formation (H&E, x400).



**Figure 5: Tumor cells showing cytoplasmic immunohistochemical staining positive for CK5/6 (x100).**

## DISCUSSION

The occurrence of Squamous cell carcinoma in the gastrointestinal tract is a rare entity, and Squamous cell carcinoma of colon is extremely rare, its incidence ranges from 0.1 to 0.25 per 1000 colorectal neoplasms<sup>[1]</sup>. The first case of squamous cell carcinoma of colon was reported in 1919 by Schmidtman a 65-years-old man<sup>[2, 5]</sup>. In India, Bhat *et al.* in 1993 reported the first case of pure squamous cell carcinoma of the colon in a 55-years-old female from the southern part of the country<sup>[4, 6]</sup>. Mean age of SCC of colon is 57 years and has male preponderance. Most common site of SCC of colon is caecum and the right colon<sup>[2, 7, 8, 9]</sup>. The diagnosis of colonic SCC is often delayed with symptoms persisting from few weeks to months. The tumor can be revealed by distant metastasis to liver, lung or bone<sup>[9]</sup>. Primary SCC has poorer prognosis than adenocarcinoma.

Williams *et al.* in 1979, have proposed some reasonable criteria, which must be fulfilled before giving diagnosis of primary SCC of colorectum. This includes, there should not be evidence of squamous cell carcinoma of any other primary site, absence of any proximal extension of anal squamous cell carcinoma, absence of squamous cells lining of fistulous tract, confirmation of SCC by histological examination (without glandular differentiation)<sup>[1, 2, 4, 10]</sup>. All these criteria's were fulfilled in our case.

There are four different theories regarding the SCC of colon have been proposed so far: (1) proliferation of uncommitted basal cells into squamous cells which undergo malignant transformation following mucosal injury<sup>[3]</sup>, (2) ability of pluripotent stem cells to undergo spontaneous squamous differentiation<sup>[3]</sup>, (3) squamous metaplasia of glandular epithelium resulting from chronic inflammation or irritation, secondary to inflammatory bowel disease, infection or radiation<sup>[3]</sup>, (4)

origin from embryonic nests of ectodermal cells or (5) arousal of SCC from preexisting adenomas or adenocarcinoma<sup>[3]</sup>. Surgery is the mainstay of treatment for colorectal SCC with or without adjuvant chemoradiation.

## CONCLUSION

Squamous cell carcinomas of colon are very rare tumors and carry very poor prognosis. This is partly due to its late clinical presentation. Surgical resection and adjuvant chemotherapy is the preferred treatment for colonic SCC.

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