

Case Report

CARCINOMA COLON IN YOUNG AGE WITH A SHORT HISTORY OF ULCERATIVE COLITIS- A RARE CASE REPORT

*Richika Gupta and Manjit Kaur

Department of Pathology, Advanced Cancer Institute Bathinda, Punjab BFUHS

Author for Correspondence: richikabansal2310@gmail.com

ABSTRACT

Adenocarcinoma is known to be associated with ulcerative colitis. The prognosis of carcinoma may be poorer in patients with inflammatory bowel disease (IBD) than in those without IBD. Most carcinomas, in general, develop from a dysplastic precursor lesion. A 24 years old female presented with abdominal cramping, bloating and diarrhoea. On endoscopy, pseudopolyps were seen. After two years she complained of blood in stools and on endoscopy, changes of ulcerative colitis grade IV and rectal growth were seen. Biopsy of polyp show moderate dysplasia and rectal growth show mucinous adenocarcinoma.

In conclusion, Adenocarcinoma is known complication associated with ulcerative colitis, the risk of this complication become significant after 8-10 years. In our case, carcinoma developed with very short history of ulcerative colitis, which is very rare.

Keywords: *Ulcerative Colitis, Adenocarcinoma, Dysplasia*

INTRODUCTION

Ulcerative colitis (UC) is one of two major types of inflammatory bowel disease (IBD); the other is Crohn's disease (CD). The age of onset follows a bimodal pattern, with a major peak at 15-25 years and a smaller peak at 55-65 years, although the disease can occur at any age (Jang *et al.*, 2009)

Colorectal cancer is one of the most serious complication of ulcerative colitis (UC). The overall incidence of this complication is closer to 2% (Morson, 1985). The risk becomes significant after 8–10 years of colitis and increases at a rate of 0.5–1% between the second and fourth decades of disease (Ransohoff, 1988). After 40 years of pancolitis approximately 25–30% of patients develop colorectal cancer (Ekbom *et al.*, 1990). Most CRCs, in general, develop from a dysplastic precursor lesion. Patients with IBD develop dysplastic lesions that can be polypoid, flat, localized, or multifocal (Ullman and Itzkowitz, 2011). The prognosis of colorectal cancer (CRC) may be poorer in patients with IBD than in those without IBD (Peyrin-Biroulet *et al.*, 2012). A patient with a 2-year history of ulcerative colitis found to have colon adenocarcinoma with mucinous differentiation is described. Carcinoma with a short history of UC have rarely been reported.

CASE

A 24 years old female presented with symptoms of diarrhoea, bloating and abdominal cramping and was diagnosed as ulcerative colitis on endoscopy. She started medication for it. After two years she complained of blood in stools and on endoscopy, an elevated 4-cm lesion with small central ulcer was seen in the rectum. The surface of the lesion was irregular and the margin was unclear. The surrounding colonic mucosa show multiple polyps in the colon and changes of ulcerative colitis grade IV. Biopsy from pseudopolyps showed moderate to severe dysplasia.

Total proctocolectomy was done and sample received for histopathological examination. The patients' postoperative course was uneventful.

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Grossly specimen of colectomy measured 55cm in length. On cutting, a proliferative growth was seen alongwith two satellite tumor nodules in the rectum; also multiple polyps seen alongwith mucosal atrophy and bowel shortening.

On light microscopy, polyps showed severe dysplasia and rectal growth showed mucinous adenocarcinoma and reaching upto serosa.



Figure 1: Gross specimen of proctocolectomy showing growth in rectum and small polyps in colon

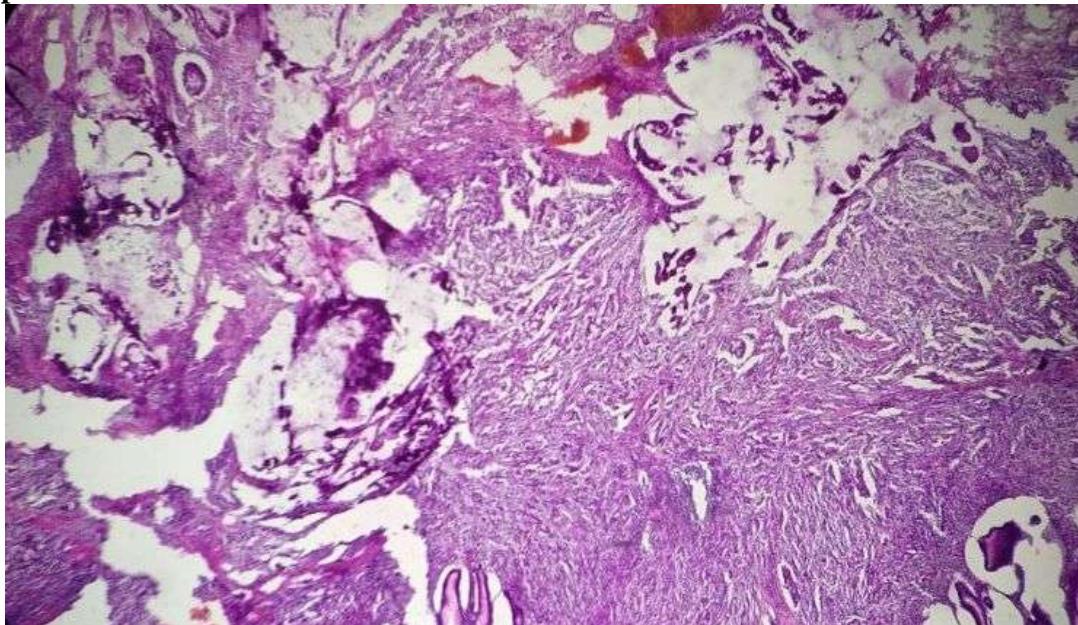


Figure 2: Photomicrograph showing adenocarcinoma colon with mucinous differentiation

DISCUSSION

Patients with UC are at increased risk for developing dysplasia. Dysplasia-associated lesions or masses (DALM) are elevated areas known to have an increased risk for the development

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of adenocarcinoma in UC. DALMs and inflammatory polyps are occasionally seen on surveillance colonoscopy in patients with UC (Blackstone, 1981; Hernández and Clofent 2012). A DALM does not appear like a typical adenomatous polyp, but often has a different appearance such as flat, granular, depressed and others (Hernández and Clofent 2012). In this patient, the tumor was elevated and nodular.

Although colorectal carcinomas are the most frequent tumors found in patients with IBD, other types of tumors have been associated with inflammatory bowel disease, such as lymphoma and sarcoma. One hypothesis is that chronic inflammation of the colonic mucosa may cause pancellular damage involving epithelial, goblet, paneth and neuroendocrine cells, resulting in pancellular dysplasia (Grassia, 2009).

In some studies, up to 27% of IBD-related cancers are multiple in number (Greenstein, 1986). In addition, there is a higher prevalence of mucinous carcinomas in IBD (Fogt *et al.*, 1998; Nugent *et al.*, 1979). In our case also, there were multiple tumor lesions and mucinous adenocarcinoma was diagnosed histologically.

The extent of colitis and duration of the disease are the most important risk factors for the development of colorectal carcinoma (Nuako *et al.*, 1998). Other risk factors include concomitant primary sclerosing cholangitis, (Broome, 1992; D'Haens, 1993), a family history of CRC (Nuako *et al.*, 1998) and early onset of UC. (Devroede *et al.*, 1971)

It was reported in a meta-analysis that the cumulative risk of CRC in patients with UC was 2% at 10 years, 8% at 20 years and 18% at 30 years. (Eaden *et al.*, 2001) Thus risk becomes significant after 8-10 years of disease and increased further with duration. But our case is rare as patient presented with carcinoma after history of only two years of ulcerative colitis. Early development of carcinoma in our case may be due to increased extent and severity of disease as our patient was suffering from pancolitis. But two years is too short duration and rare case is reported too early. There was no family history in our case.

ACKNOWLEDGEMENT

We are grateful to our institute and Baba Farid University, Faridkot for their useful collaboration.

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