

Metastasis to ileostomy of mucinous adenocarcinoma of rectum

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Abstract

Carcinoma of colon and rectum is one of the most common malignancies of gastrointestinal tract. Primary ileostomy cancer following excision of primary tumour is a rare complication although a number of cases have been reported in the last 30 years. This case also reports lymph node metastasis to the adjacent mesenteric lymph nodes. Appearance of ileostomy tumour as synchronous or metachronous lesion is highly debatable. Once diagnosis is confirmed by biopsy enblock excision with or without stomal relocation is the main stay of treatment. Patient education and regular surveillance of patients with long-standing ileostomy is recommended for early detection of this unusual cancer.

Keywords: Carcinoma, Rectum, Gastrointestinal tract, Cancer.

Introduction

Ileostomy is a surgical opening made by bringing end or loop of ileum on the skin. This could be a permanent or temporary measure to evacuate gut content. Ileostomies are made for various disease processes including inflammatory, infectious, obstructive, malignant and traumatic of small and large bowel. It is also associated with various complications like nutritional imbalances, skin problems, and complications directly related to stoma like herniation, prolapse, ischaemia and necrosis, retraction, obstruction. Incidence of ileostomy tumour is very rare but it is a known complication reported in various journals in last 50 years, some citing frequency as low as 0.1 %. Though many cases reported were after IBD but cases have been reported after excision of primary small and large bowel tumours, primary urinary bladder tumours and ovarian tumours as well. The time period between formation of ileostomy and development of tumour varies from as long as 30 years to within 2-3 years. Various theories have been put forward to explain the formation of tumour but no exact cause could be stated.

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Case Report

A 35 years old male patient with no known comorbidities and an ex cigarette-smoker presented initially as a case of Carcinoma rectum (moderately differentiated adenocarcinoma) on 11th may-2010 and resection of the primary tumour with Hartmann's procedure was done. (This patient had presented in emergency as case of intestinal obstruction so baseline CT scan could not be done). On exploration, a tumour of 4x5cms was present in the upper and mid third of rectum, involving all layers, along with few enlarged lymph nodes, liver, spleen and other viscera were normal. He received 12 cycles of chemotherapy (FOLFOX) at oncology unit Civil Hospital Karachi. His post chemotherapy CT scan (16 march-11) showed absence of metastasis. He had reversal of Hartmann on 23 March-2011. At the time of reversal distal small bowel loop was found adherent to Hartmann's pouch which was separated, but on palpation this portion was thick and rest of the bowel was normal. A portion was excised and end ileostomy made. Excised thick portion was sent for biopsy that showed nonspecific inflammation. Patient presented on



Figure: Metastatic growth at ileostomy site.

15th July-11, with complaints of lower abdominal pain, bleeding from stoma site and a mass arising from stoma for the last two months, stoma was otherwise functioning normally. On examination a proliferative growth was found at the stoma site which was bleeding (Figure). His preoperative CT scan (2-Aug-11) confirmed the presence of residual/recurrent rectal tumour with mass lesion at recto sigmoid junction of 2.7x2.1x2cms, perifocal fat stranding and multiple matted small bowel loops fixed posteriorly in presacral space and infiltrated by rectal mass and multiple necrotic lymph nodes in the abdomen. Thickened ileostomy was seen with necrotic mass of 3.4cms, infiltrating into anterior abdominal wall and adjacent skin. On exploration (8-aug-11) ulcerating proliferative growth found at ileostomy site of size 3x4cms which was excised and refreshing of ileostomy performed because of wide spread metastasis in mesentery and adjacent small bowel loops and in distal stump of rectum as well. Resected specimen was sent for histopathology (24-Aug-11) which gave a diagnosis of poorly differentiated adenocarcinoma.

Discussion

The incidence of small bowel malignancy in general population is 0.7 per 100,000.² The ileum is most frequently involved (49 percent) followed by jejunum (29 percent) and duodenum (22 percent). In contrast adenocarcinoma of the small bowel is least commonly found in the ileum (22 percent), followed by Jejunum (38 percent) and duodenum (40 percent). Suarez et al. estimated the incidence of ileostomy carcinomas in Britain to be 2-4 per 1000? ileostomies.⁵ The first case of ileostomy adenocarcinoma following proctectomy for familial adenomatous polyposis was reported by Roth and Logio in 1982.⁴

Stomal complications are reported in 30 to 75 percent of patients with conventional ileostomy.⁶

The aetiology of ileostomy adenocarcinoma is unclear. Various hypotheses have been advocated but no single causative pathway has been identified. The exposed portion of an ileostomy is subjected repeatedly to physical trauma and to chemical or physical irritation from materials or adhesives used in conjunction with ileostomy appliances.⁵

In normal gastrointestinal mucosa, sulfomucins are present exclusively in the colon compared to the complete exclusion of the small intestine, where sialomucins are produced.¹⁰ However few previous reports have shown that the mucin present in the metaplastic mucosa of ileostomies is colonic type.^{5,6}

Several authors have reported histological changes including inflammatory infiltration, ileal dysplasia, colonic metaplasia and epithelial hyperplasia.^{5,14,15}

They include intestinal obstruction, stenosis, and retraction, prolapse of stoma, abscess, fistula, skin irritation, diarrhoea, urinary calculus, ileitis, and inflammatory polyps.^{6,7} Primary adenocarcinoma of ileostomy is a rare and late complication following proctocolectomy and ileostomy. A case of lymphoma in ileostomy has also been reported.⁸

The common symptoms are bleeding, difficulty fitting the stoma appliance, and bowel obstruction. The most common physical finding is polypoidal friable bleeding mass or ulcerative lesion at the mucocutaneous junction of the ileostomy. The differential diagnosis is Crohns disease, ileitis or Backwash ileitis at the stoma, pseudoepitheliomatous hyperplasia, extensive pseudopolyposis or granulation tissue, pyoderma gangrenosum, and squamous cell carcinoma.¹

En bloc resection with stomal relocation is the only modality of treatment but due to presence of wide spread disease in our patient it was deferred and excision of the tumour with 5cms marginal clearance proximally and refashioning of stoma was done. Patient was referred back for systemic chemo radiotherapy.

Conclusion

Metastasis to ileostomy is very rare following mucinous adenocarcinoma of rectum and sigmoid. The appearance of the tumour as synchronous or metachronous lesion is highly debatable. Treatment of such tumours is difficult as they present late with wide spread metastasis. Patient's awareness and regular follow-ups are highly recommended. Advancements in molecular biology with detection of micro metastasis in areas adherent to primary tumour sites can revolutionize the treatment of wide spread colonic tumours at the time of initial presentation.

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