CHAPTER 4

Case report: effective treatment of multinodular oesophagostomiasis with albendazole

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INTRODUCTION

*Oesophagostomum bifurcum* is a human parasitic intestinal helminth. In parts of West Africa, it is highly and focally endemic, with village infection prevalences peaking at 70%. An estimated 250,000 people are infected, and 1 million are at risk. O. *bifurcum* juveniles develop in the colonic wall, causing pus-filled granulomas, and the adults release hookworm-like eggs into the stool.

114 cases of human oesophagostomiasis have been reported in the literature, originating from East, West and South Africa, South America, and the Far East. On eleven occasions, the patients were Europeans or North Americans with a travel history. In Nalerigu hospital, northern Ghana, at the heart of the West African endemic area, oesophagostomiasis accounts for approximately 1% of the annual major surgical procedures and 0.2% of outpatient presentations. Multinodular oesophagostomiasis (Figure 1) comprises hundreds of pea-sized nodules in the thickened, oedematous submucosa and subserosa of the colonic wall.

In the majority of case reports of multinodular oesophagostomiasis, a diagnosis was not achieved until a pathologist’s report following an exploratory laparotomy. However, diagnosis is now possible with ultrasound, recognition of the characteristic ‘target’ lesions reducing the need for exploratory surgery. Management of multinodular oesophagostomiasis has always been with colectomy, both from the case reports in the literature, and from the practice of clinicians at Nalerigu hospital. In this paper, we present a case of multinodular oesophagostomiasis managed effectively with oral albendazole.

CASE DESCRIPTION

A 48 year old Bimoba woman, presented to Nalerigu hospital out patient department on the 25th of August 1997 with a 2 month history of generalised abdominal pain, reduced...
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appetite, and mucus containing semi-loose stool. Hookworm ova were present in a stool smear, her haemoglobin was 9.5g%, and a few malaria parasites were seen in a thick blood film. She was treated with chloroquine, thiabendazole, iron sulfate and paracetemol.

12 days later, she represented with a worsening picture of the same symptoms, and exploratory laparotomy was performed by a surgeon new to Ghana. Thickening of the colonic wall from the caecum to beyond the splenic flexure and inflammatory adhesions were noted, with peri-colonic and mesenteric lymphadenopathy. A diagnosis of intestinal TB was given, and she was referred to the TB clinic. Her weight was 41Kg.

Figures 2a, 2b and 2c: Transverse view of transverse colon illustrating resolution of nodular 'Target' lesion

She was lost to follow up, but returned 5 months later complaining of intense abdominal pain and fever particularly in the evenings. She weighed 40kg, a thick film was negative, but hookworm eggs were again found in a stool smear. She was treated with mebendazole, and recommenced on anti-tuberculous therapy, taking up residence in the TB village attached to the hospital.

Her condition continued to deteriorate, and a second exploratory laparotomy was performed, this time by a surgeon visiting Nalerigu. Intestinal TB was again diagnosed, with extensive involvement from the caecum to the proximal descending colon, and multiple metastatic foci were noted on the liver and the abdominal wall. A pathology
sample was sent to the United States for analysis. She remained at the TB village, but complained constantly of abdominal pain and mucoid diarrhoea, and continued to lose weight, dropping to 39kg.

2 months later, the pathology report returned stating that worm containing nodules were found throughout the colonic wall with generalised inflammatory changes, and the specimen was TB negative. A referral was made to the oesophagostomiasis clinic, where she complained of constant pain throughout the abdomen with abdominal distension, but normal bowel sounds could be heard. She was having constant mucoid semi-loose stool, and appeared lethargic. A palpable firm tube in the left upper quadrant was noted on examination. By ultrasound, the colon appeared as nodular 'Target' lesions from the caecum to the descending colon (Figure 2a). There was no evidence of ascitic fluid within the abdomen. A stool culture was negative for hookworm and *O. bifurcum* larvae, but a diagnosis of multinodular oesophagostomiasis was made on the basis of the ultrasound appearance of the colon, and she was treated with 400 mg albendazole for 5 days.

Paracetemol and multivitamins were given weekly at the oesophagostomiasis clinic. The colonic inflammation (Figures 2b and 2c) and abdominal pain subsided over the following few weeks, and stool cultures continued to be negative. Her general condition improved and her weight increased to 43kg. She was discharged from the TB village 2 months later.

**DISCUSSION**

Multinodular oesophagostomiasis is a serious disease presenting diagnostic challenges. Its management has previously been with exploratory laparotomy and colectomy: not surprising when the gross oedematous often friable inflammatory changes in the colon are observed. It is hard to imagine that reabsorption and repair is possible.

The advantage of albendazole treatment over colectomy is clear, and is possible because multinodular disease can now be diagnosed presurgically and the progression of colonic resolution followed by ultrasound. Despite the success of this case, management with albendazole should never become a routine strategy for multinodular oesophagostomiasis without taking into consideration the patient’s clinical condition.
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