Stricture of the descending colon due to schistosomiasis

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Summary
An example of a localized non-fibrous stricture of the colon due to Schistosoma mansoni infection is reported. The radiological and colonoscopic features are described. After treatment of the infection with niridazole, the stricture resolved completely. The pathogenesis of bowel lesions in schistosomiasis is briefly discussed.

Introduction
The pathological changes in schistosomiasis mansoni result from immune responses to ova retained in host tissues (Warren, 1972). The granulomata formed around ova resolve slowly with varying amounts of residual fibrosis. Gross colonic lesions are, however, remarkably rare (Manson-Bahr, 1958; Cheever and Andrade, 1967). A case is reported of Schistosoma mansoni infection which resulted in a localized stenosis in the descending colon. This stenosis regressed following anthelmintic treatment.

Case report
A 32-year-old Negro male from St Lucia, came to Britain in 1968. He presented at the Hospital for Tropical Diseases in 1970 with a history of blood in the stools. Physical examination was unremarkable, apart from schistosomal tubercles seen in the rectum on sigmoidoscopy. Viable ova of S. mansoni were found in the stool. He was treated with niridazole 500 mg, thrice daily for 10 days, but was lost to follow-up. The patient presented with the same history in April 1974. He had returned to St Lucia in October 1973, for 4 weeks, but had not been exposed to fresh-water pools or streams. Physical examination, including sigmoidoscopy, was normal. Viable ova of S. mansoni were found in the stool. Treatment with niridazole was repeated. Immediately after finishing the course of anthelmintic, a barium enema was performed. This showed marked angulation in the mid-descending colon at the mid-point of a smooth, narrowed segment with tapering extremities, suggesting a benign lesion (Fig. 1).

Four weeks after treatment, colonoscopy was performed. This confirmed the stricture in the mid-descending colon, but the instrument was passed on to the caecum. The mucosa was friable distal to the splenic flexure with friability most marked at the level of the stricture. Biopsies from this area showed remnants of schistosome ova.

A repeat barium enema 3 months after treatment showed only slight indrawing of the lateral wall of the descending colon at the site of the initial stricture with normal distensibility and alignment of bowel (Fig. 2). Further examinations of the stool for schistosome ova have been negative.

Discussion
The appearance of the colonic mucosa in schistosomiasis mansoni is usually normal (Manson-Bahr, 1958; Gelfand, 1963). Most ova pass into the lumen...
of the colon. Ova retained in the wall of the colon evoke a granulomatous response. Multiple granulomata may coalesce to form polyps or strictures (Edington and Gilles, 1969). Intensity of local oviposition and host responsiveness to retained ova determine the abnormalities found in the colon.

Radiological screening of an infected population for the pathological effects of schistosomiasis haematobium on the urinary tract has been described by Lucas et al. (1969) using excretion urography. Nodular lesions in the bladder producing an obstructive uropathy were found. These changes resolved after treatment with niridazole. Information regarding early changes in the large bowel following S. mansoni infection is less complete.

Niridazole kills adult worms, preventing further oviposition. By anti-inflammatory action it reduces local tissue oedema (Muller, 1971) and hence the size of the lesion. Without specific anti-schistosomal treatment it is suggested that the reversible stenosis described would progress by local fibrosis to form an irreversible fibrotic stricture. These are well recognized in schistosomiasis mansoni and their appearances documented (Medina et al., 1965; Francis and Wright, 1971). Specific treatment of early schistosomal stenoses may avoid recourse to surgery.

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References
Case reports


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