

LEIOMYOMA OF THE SMALL BOWEL WITH ILEOVESICAL FISTULA

J. M. Mendes de Almeida and Victor Melo Santos

Department of Surgery, Hospital Santa Marta, Lisbon, Portugal.

SUMMARY

A case is reported in which a leiomyoma of the small bowel was revealed by an ileovesical fistula, complication of a benign tumor believed to be the first one in the literature. The mechanism of fistula formation is commented upon.

Primary tumors of the small bowel, are among the least common of the digestive tract (Colcock and Braasch 1968).

Most benign tumors are asymptomatic (Botsford et al 1962) and usually are autopsy or incidental operative findings, whereas about 75 % of symptomatic tumors are malignant (Darling and Welch 1959). Nevertheless, the symptomatic pattern is rather similar in the two groups, and so a separation cannot usually be made on clinical grounds (Broders et al 1959; Cohen et al 1971). Often, the presenting symptoms and the clinical features that warrant a laparotomy, are already a complication of the tumor, namely intestinal obstruction and bleeding (McIlrath and Hinnekens 1967).

Perforation with peritonitis, abscess formation or fistulization to a neighboring organ are uncommon complications of these tumors, even of the malignant ones (Ebert and Zuidema 1965; River et al 1956; Rochlin and Longmire 1961; Wilson et al 1974). Ostermiller et al (1966) reported a case with a small bowel-to-bladder fistula due to an adenocarcinoma of the ileum. To the best of our knowledge, no case has been previously reported of a benign leiomyoma complicated by an ileovesical fistula (Abeshouse et al 1957; Pugh 1964; Williams 1954).

CASE REPORT

A 46-year old man was admitted to Hospitais Civis de Lisboa in January 1973, complaining of hypogastric pain, dysuria, frequency, pneumaturia and faecaluria for the 2 days prior to admission. Three months before, he had had a colicky pain in the periumbilical region, with the passage of dark faeces that led to a transfusion of 2 units of blood in a district hospital. A barium meal examination revealed no abnormality. He was asymptomatic and working full time between these two episodes.

On examination the patient was slightly pale and prostrated. The temperature was 37°C, the pulse 86 and the blood pressure 140/80 mmHg. The abdomen was soft with tenderness in the hypogastrium and both iliac fossae; no abdominal mass could

be palpated; rectal digital examination was normal. Proctosigmoidoscopy proved to be normal up to 25 cms.

The haemoglobin was 10 g/dl; the erythrocytes 3 640 000 with anisocytosis and poikilocytosis; the WBC was 14 850 with 89 % neutrophils; the ESR was 96 mm in 1 hr.; the urine was grossly hematic and the sediment contained faecal particles.

Barium follow-through disclosed a proximal dilatation of the ileum to a zone where the contrast entered the bladder (Fig. 1). A retrograde cystogram demonstrated the fistulous tract by filling an ileal loop (Fig. 2).

An upper CI series and a barium enema were normal, as was an intravenous pyelography. A cystoscopic examination was not done because of technical reasons.

On the tenth hospital day the patient was submitted to a laparotomy. About 70 cms. from the ileocaecal valve, a grossly spherical tumor was present in the ileum, 5 cms in diameter, closely connected to a neighbouring loop, to the sigmoid and to the bladder vault. A segmental resection of the ileum was made with en-bloc removal of the fistulous tract and a portion of the bladder vault (Fig. 3).

Histology (Prof. C. Pimentel) revealed a tumor with elongated smooth muscle fibers whorled in several directions and thin bundles of collagen fibers among them (Fig. 4). Confirmation of its leiomyomatous nature was done by the yellow staining of muscle fibers in the Van Gieson stain, by their birefringent nature (Fig. 5) and, as the possible confusion with neurilemoma, by the inexistence of schwann cells type A or B in the silver impregnation method of Pimentel and Duarte (Pimentel and Duarte 1952). There were no histologic signs of malignancy.

The postoperative course was uneventful; in the follow-up, 6 years later, the patient has remained entirely free from symptoms and is working full-time.

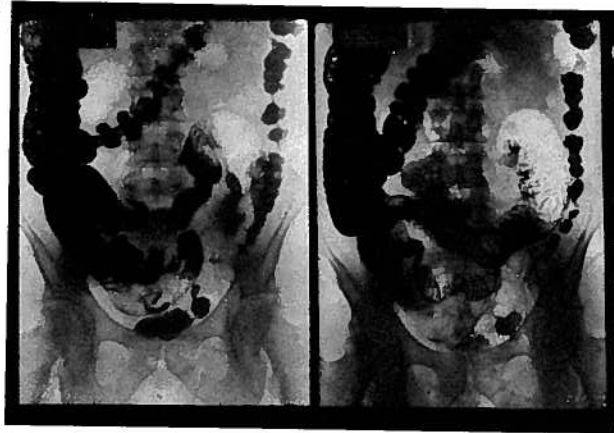


Fig. 1 — Barium follow-through showing passage of contrast to the bladder

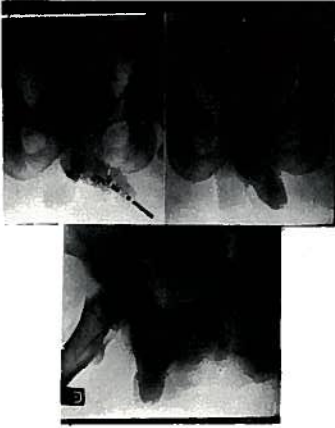


Fig. 2 — *Retrograde cystogram*

Fig. 3 — *The loop of ileum resected and a portion of the bladder vault*

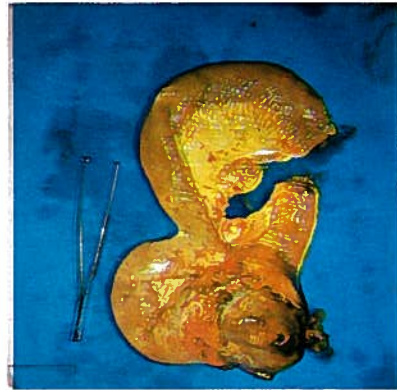


Fig. 4 — *Microscopic appearance of the leiomyoma. Haematoxylin-eosin stain*

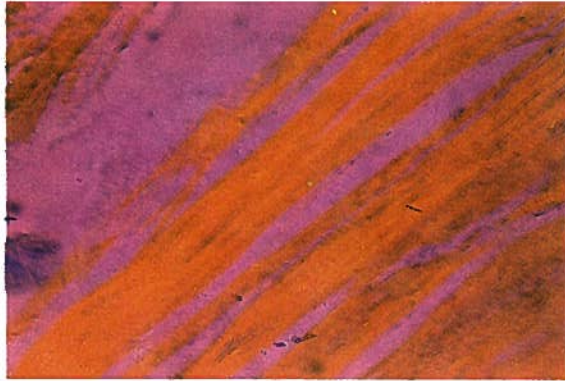


Fig. 5 — Birefringence of muscle fibers

COMMENTS

Delay in diagnosis of small bowel tumors is traditional and often due to the vague and nonspecific initial symptoms that these tumors produce; being relatively rare, they are frequently not considered in the differential diagnosis of intestinal diseases. On the other hand, accurate roentgenologic and laboratory aids for the diagnosis of early lesions are difficult to obtain (Ostermiller et al 1966). Due to these facts, late complications are still presenting symptoms in a considerable number of cases. Nevertheless, perforation is a rather unusual complication, particularly of benign tumors.

Leiomyoma, owing to its particular tendency to undergo a central hemorrhagic necrosis, is specially prone to bleed, often massively (Valdes-Dapena and Stein 1970). Initial cavitation on the mucosal side was probably the cause of bleeding in the case reported. Progression of necrosis towards the serosal surface, eventually with localized infection and adherence to the bladder vault, would have produced the ileovesical fistula through the cavity of the tumor. All these mechanisms are possible in an entirely benign leiomyoma, as is attested by the histology and the subsequent follow-up now of 6 years.

RESUMO

Descreve-se um caso de leiomioma do intestino delgado revelado por uma fístula ileovesical, complicação por tumor benigno que se crê ser a primeira na literatura. É comentado o mecanismo de formação da fístula.

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Adress for reprints: J. M. Mendes de Almeida
Department of Surgery
Hospital Santa Marta
Lisboa - Portugal