

Nonspecific Granuloma of the Intes-
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Obstruction

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In 1909, Heinrich Braun¹ referred to a report by him, eight years earlier, of an inflammatory tumor of the mesentery, causing obstruction, and he reported "similar tumors of the intestines, whose recognition is important as to course and prognosis and especially because of their similarity to new growths." Up to that time there had been no record of these tumors in German medical textbooks or journals, but in reviewing the literature Braun found that Moynihan had seen the condition six times in three years and Mayo Robson had seen it five times in twelve years, never involving the small intestine. He thought that these tumors were sometimes unrecognized or mistaken for carcinoma, because microscopic examination had not been made, and he pointed out that they have nothing to do with the very circumscribed inflammatory tumors of tuberculosis or actinomycosis. They are sometimes diffuse inflammatory tumors in the vicinity of the sigmoid, usually associated with diverticula, or inflammatory pseudotumors of the mesentery, causing stenosis of the transverse colon. "Inflammatory tumors of other parts of the body are easily recognized as such," he wrote, "but in the abdominal cavity the differentiation from carcinoma (especially in elderly patients with cachexia, intestinal disturbance or signs of obstruction), from stones in the common or cystic bile ducts, or from masses in the female pelvis may be possible only by exploratory laparotomy." The reports from the literature by Braun are as follows:

Moynihan² reported intestinal obstruction in a man, aged 62, due to a mass the size of a coconut which was thought to be

1. Braun, Heinrich: Ueber Entzündlichesgeschwülste am Darm, *Deutsch. Ztschr. f. Chir.* **100**: 1-12, 1909.

2. Moynihan, B. G. A.: The Mimicry of Malignant Disease in the Large Bowel, *Edinburgh M. J.*, 1907, p. 228.

cancer. The tumor was not removed, but anastomosis was done, followed by recovery and no recurrence.

Robert Proust³ saw a woman, aged 32, four months after ovariectomy, with lancinating pain in the left quadrant of the abdomen; a nut sized mass was felt. Operation revealed localized peritonitis, but the mass was not removed. When seen six months later, the tumor could be grasped in two hands, and operation showed an inflammatory tumor of the omentum, causing stenosis of the intestine. After removal, it was difficult to determine microscopically whether it was tuberculous or neoplastic, but a thorn was found embedded in inflammatory tissue and there were microscopic evidences of inflammation.

Robson,⁴ in 1906, saw an old man with a hard intra-abdominal tumor near the navel, suspected to be carcinoma. Operation revealed a tumor of the transverse colon, involving the omentum and small intestine; it was not removable. Anastomosis gave relief; he improved rapidly, and the tumor disappeared. Twelve years earlier, Robson had operated on a man, aged 70, for intestinal obstruction caused by a tumor of the ascending colon; anastomosis gave relief, and he was well when seen three years later. A third case was that of a patient seen two years before with an obstruction due to a large tumor in the region of the splenic flexure, resembling carcinoma. Anastomosis relieved it, and the patient was well when seen one year later.

Lejars⁵ reported the case of a woman, aged 26, with pain in the gallbladder region and jaundice. Operation showed a mandarin sized tumor in the gallbladder region, involving the angle of the colon and mesentery; while it appeared to be malignant, microscopic examination showed it to be inflammatory.

Braun¹ reported two cases; one a woman, aged 54, with a mass in the lower part of the abdomen suggesting an ovarian tumor but found to be inflammatory. The other was a man, aged 60, with an obstruction tumor in the region of the cecum. Both tumors disappeared spontaneously after operation. In the discussion of Braun's paper, Jaffe reported two cases, both in the colon, mistaken for carcinoma; Reichel reported a similar case in the sigmoid; Franke said the condition should be differentiated from hyperplastic colitis, sigmoiditis and diverticulitis. Braun described the microscopic appearance of these tumors, and his paper is accompanied by colored plates of the microscopic sections. They agree with the description of Moschcowitz and Wilensky, which follow. The etiology of these inflammatory tumors was not determined by Braun.

3. Proust, Robert: Tumeur paraintestinale, Rapport par M. Lejars, Bull. et. mém. Soc. de Chir. de Paris **33**: 1158, 1907.

4. Robson, A. W. M.: Abdominal Tumors Simulating Malignant Disease and Their Treatment, Brit. M. J. **1**: 425 (Feb. 22) 1908.

5. Lejars: Des tumeurs inflammatoires paraintestinal, Bull. et. mém. Soc. Chir. de Paris **34**: 9, 1908.

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In a paper by Moschcowitz and Wilensky⁶ four cases were reported; summarized briefly, they are as follows: A man, aged 23, had diarrhea of one year's duration but was operated on for acute appendicitis. Six months later, a mass appeared in the right iliac fossa, which was a granuloma. He was well for two years, when he had acute obstruction with a granulomatous mass. Microscopically, there were numerous giant cells surrounding foreign bodies of unknown nature. A year later he had suppurative peritonitis, the origin of which was not determined at operation. When seen some months later he was well except for mild diarrhea. The second patient, a man, aged 33, had been operated on two years before for inguinal hernia, and the appendix was removed. He presented symptoms of appendicitis, but a large mass was found in the descending colon which, microscopically, was simple chronic granuloma. The third patient, a man, aged 44, had been operated on for acute suppurative appendicitis. Two years later a mass was found in the left kidney region, which, at operation, proved to be granulomatous obstruction of the splenic flexure, mainly in the mesentery, but involving the wall of the intestine and apparently not breaking into the mucosa. Microscopically, there was no evidence of tuberculosis, syphilis or lymphogranuloma. The fourth patient, a woman, aged 44, was seized with cramp-like pain in the right abdomen. Three weeks later a large mass was found in the right iliac fossa. Resection, with a part of the ascending colon, showed simple granulomatous tissue.

The pathology of the cases of Moschcowitz and Wilensky was as follows:

Gross.—One specimen was a firm, dense, uncircumscribed tumor involving all coats of the large intestine and causing stricture of the lumen. There was some superficial ulceration, not beneath the mucosa. In three cases the ascending colon was involved; in a fourth, the splenic flexure. Another specimen involved the mucosa, submucosa, muscularis and serous layers of the small intestines, causing almost complete obliteration.

Microscopic.—There was uniform, extensive infiltration of all coats with cells of plasma or round cell type and fibroblastic transformation from comparatively richly cellular tissue to firm, dense fibrous scar. The number of polymorphonuclears varied. In one instance they were congregated sufficiently to justify the term abscess. New blood vessel formation was prominent in all specimens. Giant cells were absent in the first case. The mesenteric glands were not noteworthy.

6. Moschcowitz, E., and Wilensky, A. O.: Am. J. M. Sc. **166**: 48 (July) 1923.

The case here reported is presented because: 1. It is similar to those referred to above in the gross appearance, which suggested a tumor mass resembling tuberculosis or new growth, causing intestinal obstruction. 2. The patient has been under observation for nine years, in which time there have been three operations for granulomatous tumors, causing intestinal obstruction. He was fairly well in the intervals. 3. The first granulomatous obstruction followed an operation for appendicitis, subacute. Subsequent granulomas were associated with systemic evidences of focal infection (sciatica, arthritis, low grade fever, etc.). 4. The last operation showed coincidental suppurative cholecystitis, and the excised tissues and gallbladder gave a pure culture of streptococci. 5. The condition is rarely referred to in current medical literature.

REPORT OF CASE

A man, aged 20, with no former serious illness, had had more or less pain in the epigastrium, headache and moderate cough for a long time, and he was troubled with constipation for a year before I saw him in 1916. He was relieved of all these symptoms for four months, when he complained of pain in the left shoulder, constipation and rectal fissure. These symptoms responded to treatment, but one month later, after eating green corn, symptoms of appendicitis appeared that required operation, showing subacute inflammation. Exploration of the abdomen showed no further abnormalities. He was then well for about a month, when he had an attack of cramp-like pain in the left upper abdominal quadrant, nausea and vomiting. These subsided in a few days, and he was well for about three weeks, when he had sharp abdominal pain and there were definite signs of obstruction, demanding operation. Eight inches of indurated thickened bowel was resected, thought at the time of operation to be tuberculous, but found to be granulomatous, as described above. Five months later he had acute obstruction, demanding operation, when 24 inches of ileum was resected by another surgeon during my absence in Europe. This was thought to be tuberculous but proved to be granuloma. The pathologist, at that time, not aware of the earlier history and the pathologic condition of the tissues removed at the former operation, thought it phlegmonous enteritis, due to chronic streptococcal infection as described by MacCallum.⁷ His description was as follows: Microscopically, the specimens showed dense inflammatory tissue,

7. MacCallum, W. G.: Text Book of Pathology, Philadelphia, W. B. Saunders Company, 1916, p. 489.

with infiltration of the submucosa and mucosa. There was no ulceration and no evidence of tuberculosis or syphilis. The infiltration consisted of polymorphonuclear leukocytes, lymphocytes and many eosinophils. The gallbladder was septic at this time, streptococci being found in pure culture, also in the intestinal contents. Eight months later, another resection was done for the same condition, the patient having been comfortable up to a week before. It is nine months since the last operation for obstruction, and the patient is in fair health.

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