TRAUMATIC SUBSEROSAL HEMORRHAGE CAUSING SMALL BOWEL OBSTRUCTION*

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TRAUMA TO THE abdomen, which resulted in subserosal intestinal hemorrhage, clot formation, and varying degrees of bowel obstruction, probably has occurred many times. However, only one case, somewhat similar to the one reported here, could be found in the literature. Kratzer and Dixon[1] (1951) reported a traumatic hematoma of the ascending colon, not, however, associated with obstruction. The case to be presented demonstrates the insidious development of the intestinal obstruction, and for that reason warrants recording. It has not been possible to find a similar reported case.

CASE REPORT

C. H., Case No. H-8065, a 15-year-old white male, was admitted to Copley Memorial Hospital on January 12, 1951. Two days previous to the date of admission, he had been playing basketball and had received a kick in the abdomen. Following the accident he had rested a few minutes, and then had continued to engage in the game. For the next 3 hours he noted nothing peculiar and had gone on with his school duties; at the end of that time, however, he became moderately nauseated and vomited several times. For the next 48 hours he became progressively more nauseated, and was not able to retain any food or fluids.

The patient complained, on admission, of vague upper abdominal pain and vomiting. The emesis occurred following the ingestion of food. Physical examination was negative except for generalized tenderness in the upper abdomen. On January 13, 1951, roentgenographic studies were made of the intestinal tract, with inconclusive findings. Standing and supine scout films of the abdomen demonstrated a moderate amount of gas and an occasional fluid level in both the large and small intestine. The fluid levels were most prominent in the upper left quadrant of the abdomen. An opaque meal passed readily into the duodenum, and the second and third portions of the duodenum were found to be moderately dilated. The media passed readily into the jejunum, and it was felt that there was a slight obstruction at or near the ligament of Treitz. The erythrocytes were 4,950,000; leukocytes, 8,400; and hemoglobin was 15.5 Gm.

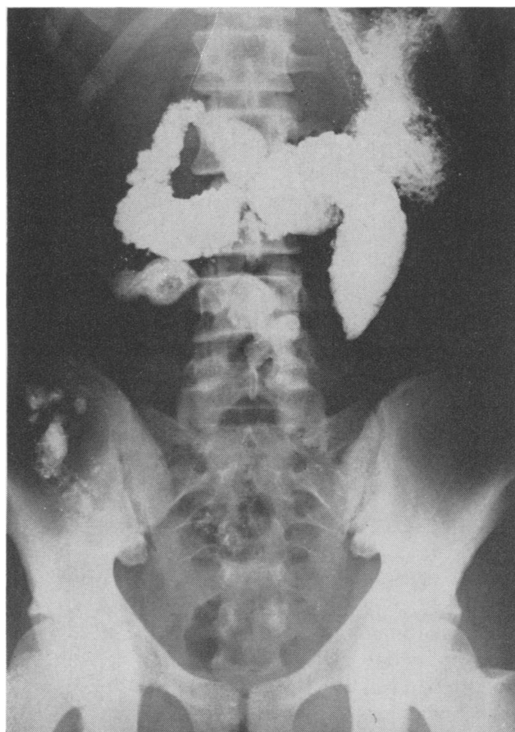

FIG. 1. Roentgenogram, A-P view, showing almost complete obstruction of the proximal jejunum. The opaque media seen caudad to the point of obstruction was that used at a previous examination, 72 hours prior to the development of the obstruction seen above.

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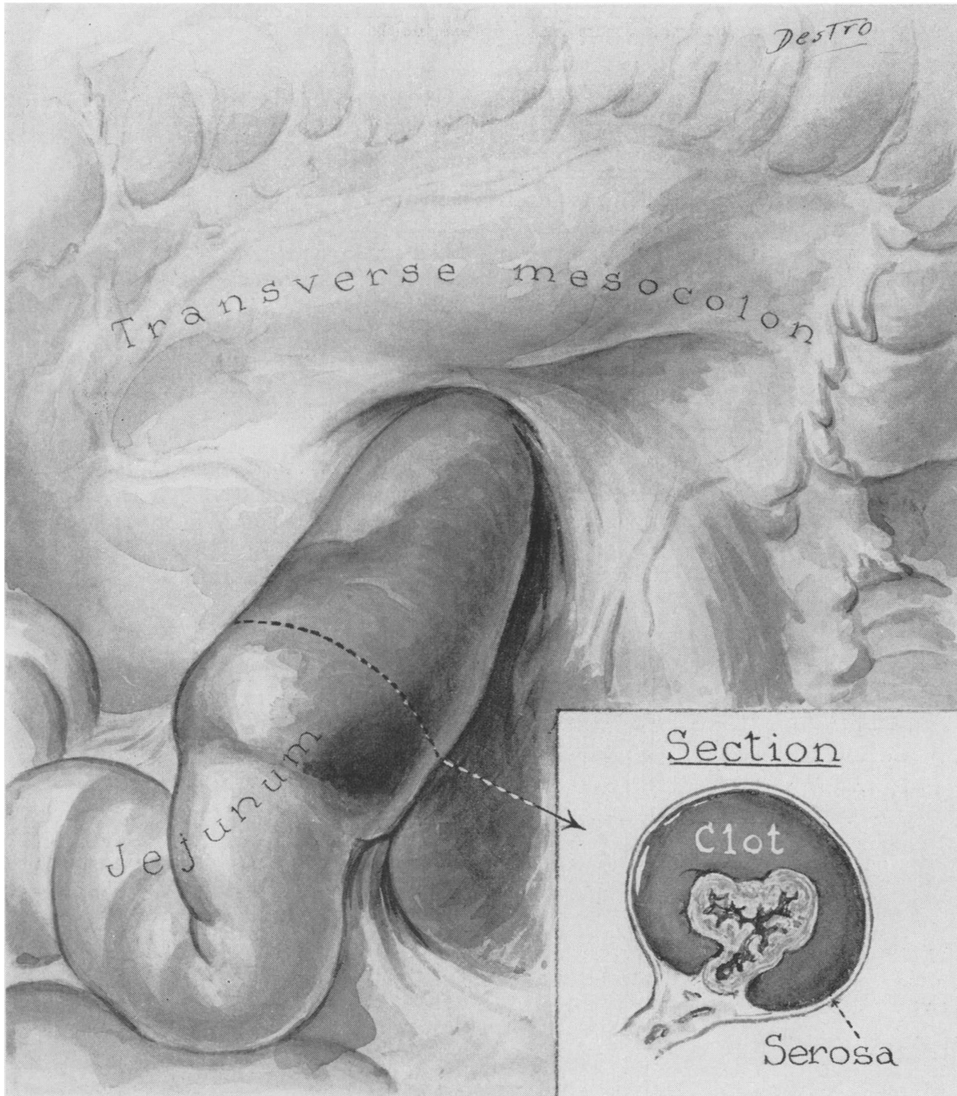

FIG. 2. Sketch of the obstructed jejunum, showing the elongated mass of the subserosal clot. The insert is a diagrammatic drawing of a cross section of the obstructed area.

Further roentgenologic studies were undertaken on January 16, 1951, approximately 72 hours after the original examination. There was an almost complete obstruction in the proximal jejunum, approximately 10 cm. from the ligament of Treitz. The area of obstruction was "cigar shaped," with the pointed end caudad. A thin line of opaque material was seen to extend caudad from the end of the obstructed point (Fig. 1). Physical examination of the abdomen revealed moderate rigidity in the upper left quadrant of the abdomen, with tenderness on palpation over this area. Palpation of the abdomen demonstrated an oval-shaped mass, about 3 by 6 cm., located just to the left of the midline, one inch caudad to the umbilicus. The mass gave the impression of being firmly attached within the abdomen, and it was tender on manipulation. Rectal examination revealed a tense, cystic mass, high in the left lower abdomen, and just barely palpable at the tip of the examining finger. The temperature was 37° C.; pulse, 70; and respiration, 18. The erythrocyte count was 5,190,000; hemoglobin, 15.5 Gm., and the leukocyte count was 5,750. A diagnosis of gradually progressive jejunal obstruction

was made, and the patient was treated surgically.

The abdomen was opened by a left rectus, muscle-splitting incision. Exploration revealed a large mass, about three inches in diameter, and about five inches in length, in the upper abdomen. The mass was quite hard, and in contour gave the impression of an intussusception. It was fixed firmly to the posterior abdominal wall by thin friable adhesions. These adhesions were dissected bluntly, and the mass was delivered medially. It proved to be jejunum with a collapsed distal loop, and a distended, thickened proximal section (Fig. 2). The color of the bowel was dark red to black. The serosa was cut longitudinally, exposing an organized blood clot, about an inch in thickness, extending from the ligament of Treitz distally for a distance of about seven inches. The clot appeared to surround the entire jejunum. With careful removal of the blood clot the muscular coat of the bowel was exposed, and there was free capillary oozing from the entire surface. At one point, anteriorly and caudad, there was a small area of beginning external pressure necrosis in the muscularis. This area was covered with the detached serosa, and a free graft of omentum was sutured over this point. The small amount of capillary hemorrhage was readily controlled with Gelfoam pads, and the abdomen was closed without drainage.

Gastric decompression was carried out for a period of six days, when oral feedings were begun gradually. Beginning on the eleventh postoperative day there was a transient 18-hour period of obstruction. It was assumed that this was due to edema, and it was treated conservatively. Except for this, the patient made an uneventful recovery, and was discharged on the sixteenth postoperative day. The patient was last seen in June, 1953, and was enjoying perfect health.

BIBLIOGRAPHY

[1] Kratzer, G. L., and C. F. Dixon: Traumatic Submucosal Hematoma of the Midportion of the Ascending Colon: Report of a Case. Proc. Staff Mayo Clinic, **26**: 18, 1951.