UNUSUAL SMALL-INTESTINAL CAUSES OF ANAEMIA

BY

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In 1952 the following three cases of rare small-intestinal lesions producing anaemia were seen on the surgical unit at the London Hospital.

Case 1. Carcinoma of Jejunum

A spinster (record No. 28809/52) was admitted on August 17, 1952, under Mr. Alan Brews with a provisional diagnosis of "malignant ovarian tumours with subacute intestinal obstruction."

Background.—She was born in 1903 and came fourth in a family of seven. Three brothers and two sisters were still living. Apart from her father, who had a haematemesis in 1952 at the age of 81, there was no history of gastro-intestinal disease. She was an intelligent woman and had made a career for herself. After her mother's death she looked after her father. She was a life-long non-smoker and did not take alcohol. She took cascara two or three times a week, and remembered being told by her mother that as a child her bowels were stubborn.

Course of Illness.—The onset of symptoms was vague. At some time between February and April, 1950, she went to her doctor because of missed periods and was given some tablets. The periods returned and were regular for six months. She next visited her doctor in April, 1951, because she was sleeping badly and had indigestion and was also tired and depressed. In September the war damage to her home was at last repaired. The upset caused by builders in the house "just about finished her off." Possibly she felt too tired to go to her own doctor, and whatever the reason for delay her next visit to him was in April, 1952, when her complaints were more definite. She was passing more wind than usual per rectum, was a little short of breath on going upstairs, and had some diffuse discomfort, which felt like wind. This discomfort got worse and became painful when she was hungry. As soon as she started to eat her appetite went and she felt sick. It is interesting to note that she denied any loss of weight. In fact she complained that she had to buy new clothes because she was developing middle-age spread. While on holiday from June 14 to 19 she began to vomit up "fluid like dirty water." In July she had severe lower abdominal pain for the first time, and this was associated with vomiting up "cascades of dirty water."

In view of the urgent nature of the obstruction it was impossible to investigate her fully. Examination showed bilateral pelvic swellings. The haemoglobin on admission was 46%. Two days later a laparotomy was done, and bilateral ovarian cysts were removed. An annular constricting tumour was found in the jejunum about 9 in. (22.5 cm.) below the duodeno-jejunal flexure. This was removed and an end-to-end anastomosis made.

The patient made a good recovery and left the ward on September 19. Two months later she looked fairly fit. Her bowels were all right for the first time in her life without aperients, but she was getting pain in the back. On examination a hard lump was felt in the right axilla and also in the pouch of Douglas. She died in May, 1953.

Microscopical examination proved the jejunal lesion to be an adenocarcinoma extending into the mesentery. Sections of the ovaries showed bilateral columnar and tubular secondary carcinoma.

TABLE I.—*Carcinoma of Small Intestine (Pylorus to Ileo-caecal Valve). From the London Hospital Records, 1908–52*

	Surgical Specimen	Post Mortem	Total
Duodenum	10	28	38
Region of the ampulla of Vater	7	21	
Above the ampulla	2	4	
Below	1	3	
Duodeno-jejunal flexure	3	1	4
Jejunum	6	4*	10
Ileum	15	5	20
Total	34	38	72

* Includes one probable secondary tumour.

Comment.—The habitual use, or rather abuse, of aperients in this case presumably blurred the onset of symptoms due to the stricture. The anaemia was due partly to bleeding and partly to the disturbance of absorption. Carcinoma of the small intestine is rare. From 1908 to 1952 72 cases were seen at the London Hospital (Table I). If the duodenal cases, which as a class merge into carcinoma of the ampulla of Vater and pancreas, are omitted only 13 cases occurred at or below the duodeno-jejunal flexure.

Eight of the nine jejunal carcinomata were annular constricting growths and one was a polypoid situated 75 cm. beyond the flexure. Fig. 1 emphasizes the interesting

FIG. 1.—Site of jejunal carcinoma in 13 cases—nine at flexure, two "fairly high," one 65 cm. beyond, and one half-way along.

point that the site is usually fairly close to the flexure. The 20 ileal carcinomata, on the other hand, tended to occur not far above the ileo-caecal valve.

Case 2. Leiomyosarcoma of Duodenum

A married woman (record No. 24329/52) was admitted under Dr. Donald Hunter as an emergency case from the cardiac department on July 10, 1952, with a provisional diagnosis of "anaemia, cirrhosis of liver."

Background.—She was born in 1906. Neither her parents nor her two sisters and brother had had any gastro-intestinal disease. Since her marriage in 1938 she had looked after her only child, born in 1939, and her home. Her husband, a G.P.O. van driver, served in the Army during the war. She was a non-smoker, took alcohol only at parties, and had never needed opening medicine for her bowels until 1950, when she began to take liquid paraffin.

Course of Illness.—The onset of symptoms is difficult to determine. During pregnancy she had attacks of palpitation followed by giddiness and fainting. During the war three further attacks occurred and after the war a few minor ones. In 1952 the attacks became more serious and culminated in her collapsing in a swimming-bath. She was then referred to hospital.

Her doctor's story is slightly different. She attended the surgery from time to time with various minor complaints, but there were no symptoms which could be attributed to anaemia until February, 1952, when she fainted. In July she fainted again, and also vomited blood, and so was sent straight away to the London Hospital.

Examination after admission showed a pale woman with a lump in the right loin. No other abnormality was detected on examination. Her haemoglobin was 48% and the liver-function tests were normal. A barium meal on July 21 and a barium enema on August 8 were reported as being "normal." (Re-examination of the films showed an indentation of the stomach and colon by an extraluminal mass corresponding to the tumour found at operation.) At subsequent physical examinations no lump could be felt.

She was going to be sent home, but on August 24 a further severe haemorrhage occurred and she became disorientated. The lump in the loin was again felt. A laparotomy was carried out after transfusion. A semi-cystic tumour was found arising from the posterior wall of the second part of the duodenum and extending in the mesocolon as far as the hepatic flexure. The tumour was removed together with some duodenum. The hole was repaired, but the consequent constriction of the lumen made it necessary to do an emergency gastro-enterostomy four days later. Her recovery was uneventful, and when last seen in June, 1953, there was no digestive discomfort.

Examination of the tumour showed a very vascular leiomyosarcoma surrounding a diverticulum lined with duodenal mucosa. Presumably the tumour originated as an intramural nodule and as it grew out subperitoneally it carried duodenal mucosa with it. Ulceration of the lining of the diverticulum led to haemorrhage which produced a tense mass. Later, as the blood found its way into the lumen of the gut, the mass became soft and impalpable.

Comment.—The hospital records from 1908 to 1952 show five other cases of leiomyosarcoma of the small intestine (Table II). Four had formed diverticula, the contents of

TABLE II.—*Sarcoma of Small Intestine (Pylorus to Ileo-caecal Valve). From the London Hospital Records, 1908-52*

	Surgical Specimen	Post Mortem	Total
Leiomyosarcoma	2	4	6
Duodenum	1	1	2
Jejunum and ileum	1	3	4
Lymphosarcoma	16	22	38
Duodenum	0	3	3
Jejunum and ileum	16	19	35

three being pus and one of blood. One arose from the duodenum. It perforated and the patient died of peritonitis. At necropsy a coincidental cirrhosis of the liver was found. Another of these patients was known to be well three years after resection in 1927, but it has proved impossible to trace her since that time. The fifth tumour, in the lower ileum, was solid and caused an intussusception.

Case 3. Diffuse Angiomatosis of Intestine

A man (record No. 48660/51) was admitted under Dr. Kenneth Perry from the Brentwood District Hospital on December 28, 1951, because of persistent anaemia.

Background.—He was born in 1917. His parents and his brother were healthy. He was a bachelor living with his parents. He had worked as a carpenter for the local council and had served in the Black Watch during the war. He had always been a light smoker and taken little alcohol. His bowels were regular and he almost never took aperients. He admitted to epigastric discomfort occurring about one to one and a half hours after meals, which first came on in 1944 while he was in the Army; further bouts occurred, especially in the winter, but they were slight and he never went to a doctor about them.

Course of Illness.—The first symptoms suggesting anaemia occurred in the summer of 1948, when he began to get very tired. He went to his doctor and his haemoglobin was found to be only 33%. During the next months he was given liver and iron and felt himself again. At Christmas, 1950, there was a relapse and this time recovery was less complete. Throughout 1951 symptoms of anaemia persisted. In December, when he was admitted to the Brentwood District Hospital and investigated, his haemoglobin was 35%. As no cause for the anaemia could be found he was transferred to the London Hospital.

Examination showed a well-built muscular man, 5 ft. 11 in. (1.8 m.) tall and weighing 13 st. 4 lb. (84.4 kg.). There were

no spider naevi, but the tip of his spleen was felt on one occasion. The blood picture was that of severe secondary anaemia. Two barium-meal examinations revealed no abnormality. The findings at laparotomy on February 8, 1952, are shown in Fig. 2. The stomach and large gut appeared normal. The whole of the small gut was affected, the feel being similar to that of a distended pulsating varicocele. Even the peripheral arteries were big and were seen

FIG. 2.—Case 3. Drawing to show the diffuse angiomas of small intestine.

to be pulsating vigorously. Apart from this the liver and portal vein were normal. The spleen was about normal size, with a splenunculus of a similar size attached to its lower pole.

Since discharge the patient had a further melaena in August, and had to be readmitted to hospital in 1953 for transfusions following a more severe haemorrhage.

Comment.—There is no record of a similar case at this hospital. Fortunately it was possible for Miss P. Archer to make a drawing from her operation sketch. Peyton (1938) described a similar case in a boy aged 15; and Kaijser (1936) reviewed the literature of intestinal angioma up to 1936.

Summary

Three cases of rare lesions of the small intestine are described. The lesions were carcinoma of the jejunum, leiomyosarcoma of the duodenum, and diffuse angiomas of the intestine. All three patients presented with anaemia. The early symptoms were vague and the diagnosis was difficult.

Seventy-two cases of carcinoma and 44 cases of sarcoma of the small intestine have been recorded at the London Hospital since 1908. The sites of the tumours are recorded. The similarity in site and pathology of the jejunal tumours is stressed. The tendency for diverticulum formation in the cases with leiomyosarcoma is also recorded.

We wish to thank Mr. Alan Brews for asking us to undertake the gut resection in Case 1; Miss P. Archer for the drawing of Case 3; and Dr. Denys Jennings for his help in preparing this paper.

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