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CASE REPORT : AN UNUSUAL CASE OF DUODENAL ULCER IN A YOUNG BOY WITH ACHLORHYDRIA

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The association of persistent achlorhydria with duodenal ulcer is a rare phenomenon. Some authorities are emphatic that in the presence of a histamine-fast achlorhydria the diagnosis of duodenal ulcer should not be considered.

A.K., a Coloured youth aged 14 years, was admitted to Groote Schuur Hospital on 27 January 1954, complaining of severe epigastric pain which came on half an hour after meals and lasted an hour or so, and which was occasionally present on waking in the morning. It would be present for months at a time, but there were long periods of freedom as well. The total duration of symptoms was 2 years. The patient localized the pain accurately to a point midway between the umbilicus and the xiphisternum. It was aggravated by fatty foods and partially relieved by milk and such soft foods as his parents could afford. On occasion the pain was associated with vomiting which relieved his discomfort slightly; his appetite was poor and he had lost weight.

He was the eldest of a family of 4 children. The parents were alive and well. The patient himself had never been ill before; he was happy at school and there were apparently no family conflicts.

On examination he was found to be a thin but sturdy boy, undersized for his age, weighing 76 lbs. He did not appear nervous and cooperated well throughout the examination. The respiratory, nervous and urogential systems were normal. There was some tenderness on deep pressure in the mid-epigastrium but no masses were felt. Haemoglobin 14 g. %; E.S.R. 27 minutes (Westegren). White blood-cells 6,150 per c. mm. with normal differential count. Wassermann reaction negative. Mantoux reaction negative. Test for occult blood negative.

A barium meal revealed the oesophagus and stomach as normal. However, a constant ulcer niche was seen at the base of the duodenal cap, with mucosal folds radiating towards it; the cap was spastic, tender and deformed (Fig. 1).

A fractional test meal revealed a histamine-fast achlorhydria. This was an interesting surprise and to obviate the possibility of an error the test was twice repeated with the same result. A cholecystogram showed a normal gall-bladder with no adhesions to the duodenum.

Treatment was begun with a modified ulcer diet, antacids, antispasmodics, and sedatives. Little or no relief was obtained and on occasions it was necessary to give the patient 50 mg. of pethidine orally before a feed. A milk drip was therefore commenced, with definite benefit, but he could not tolerate the stomach tube and vomited repeatedly. Citrated milk given 2-hourly with antacids and antispasmodics finally proved the most efficacious line of treatment.

A month elapsed before the patient was completely free of symptoms; he was kept in hospital for a further 3 weeks on a

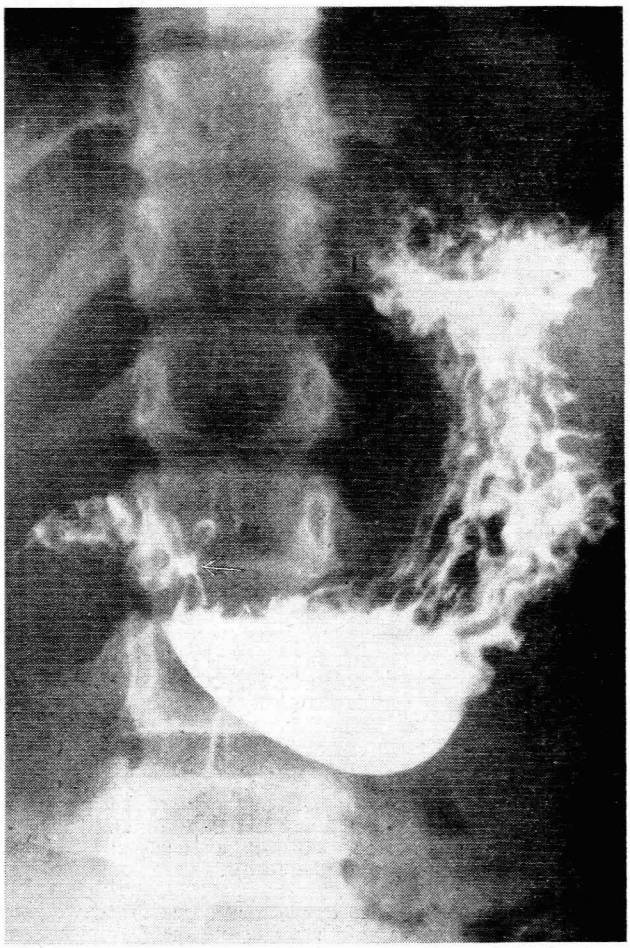

Fig. 1. Barium meal. Ulcer niche in the base of the duodenal cap. Cap spastic and deformed.

light diet and antacids, during which time the fractional test meal and the barium meal were repeated. X-rays showed a small fleck of barium still present in the base of the cap but there was no doubt that the ulcer had practically healed.

The patient was discharged with strict instructions about his diet (bearing in mind his socio-economic difficulties), and a liberal supply of antacids was given to him. On 7 June 1954—almost 3 months after discharge he returned for a follow-up. His weight had increased to 85 lb., and he reported that he was free of pain. A third barium meal revealed a normal duodenum.

Cases of duodenal ulcer with achlorhydria have been reported from time to time. Ruffin and Dick [1] demonstrated 24 cases of achlorhydria in 419 patients with proven duodenal ulcer. Braimbridge [2] cited the case of a 40-year-old woman with a typical duodenal ulcer, shown on X-ray and confirmed at operation, with histamine-fast achlorhydria. Kauver and Leiter [3] reported 2 cases of achlorhydria associated with duodenal ulcer demonstrated by X-ray, and associated also with gall-bladder disease found on laparatomy. Sacks [5] recently reported a case of duodenal ulcer radiologically confirmed, in the presence of histamine-fast achlorhydria.

For such a diagnosis to be proved, 2 criteria must be fulfilled. Firstly, an ulcer must be demonstrated by surgery or autopsy; and secondly achlorhydria by repeated test meals. In the case reported here the diagnosis of duodenal ulcer depended on the clinical history and repeated radiological findings. Four test meals with histamine as the gastric stimulant were carried out, achlorhydria was found to be present each time.

SUMMARY

A case of duodenal ulcer in a young boy associated with persistent histamine-fast achlorhydria is presented. Serial X-rays and repeated fractional test meals were carried out to substantiate the diagnosis.

I wish to express my sincere thanks to Dr. A. Marais Moll, of Groote Schuur Hospital, for permission to publish this case and to Dr. Louis Mirvish, of the same hospital, for his helpful advice and encouragement.

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