

# CHEST PAIN AS THE ONLY SYMPTOM OF GASTRIC ULCER

A. SHEDROW, M.D., M.R.C.S., L.R.C.P.

*Johannesburg*

The following four cases of gastric ulcer have presented recently with no symptoms of gastric disturbance except pain in the chest.

## CASE 1. HIATUS HERNIA WITH GASTRIC ULCER AT SITE OF HERNIATION AND OESOPHAGEAL FIBROSIS

During attendance on a case of influenza, the patient, aged 64, casually remarked that after eating he felt some slight discomfort in the dorsal region of the chest, as well as in the upper right side of the front of the chest. The pain lasted for a few minutes and then disappeared. Swallowing hot food caused some discomfort in the sternal region. These symptoms appeared about 18 months before, but the patient did not take any notice of them; the pain at the beginning would last a few minutes, with intervals of complete silence, and gradually the pain was appearing more frequently and would last longer.

The history did not point to a gastro-intestinal condition. There was no heartburn, 'indigestion', epigastric pain, swallowing or belching of air, flatulence or fluid regurgitation. The patient's appetite was good, and his weight was maintained throughout.

Pain was the only symptom. It was of superficial neuralgia type, it was not constrictive, there was no sensation of choking, or fullness, or burning, nor was a boring element present. It did not have the quality of anginal pain, nor that caused by coronary thrombosis or aortitis (although cases of silent coronary thrombosis have been observed and might fit into this picture of rather inoffensive chest pain).

The examination of the patient did not reveal anything abnormal. His blood pressure was 140/90 mm. Hg, the pulse regular and normal. Radioscopy did not reveal any enlargement of the heart and the aortic contours were normal. The urine did not contain sugar or albumin.

The examination of the chest showed nothing abnormal and there was no evidence of any lung disease.

## *Differential Diagnosis*

What condition might be indicated by this solitary symptom, casually mentioned by the patient?

*Chest Conditions.* Pleurisy, intercostal neuralgia, disease of the mediastinum and lung tumours were considered; they were eliminated by clinical examination. The pain in the dorsal region, although coming after eating, might have been due to some osteo-arthritis changes of the dorsal spine (see radiological report).

*Cardio-Vascular.* Aortitis, angina pectoris, coronary thrombosis and pericarditis were conditions to think about. Here again, all investigations proved negative.

*Gastro-Intestinal.* Cholecystitis, duodenal ulcer, abdominal aortitis, pancreatitis and hiatus hernia. These conditions could be eliminated with the exception of hiatus hernia.

*Hiatus Hernia.* On hearing the patient describe his slender symptoms I thought of a gastric ulcer associated with hiatus hernia; firstly because the pain was associated with the ingestion of food, and secondly because some pain was felt in the sternal region after swallowing hot food.

*X-ray Examination.* I accordingly requested Dr. Eric Samuel to X-ray the dorsal spine and to make a barium-meal examination for a possible ulcer. His report was as follows: 'There is marked thickening and irregularity of the mucosal pattern present throughout the lower end of the oesophagus. A well-marked hiatus hernia is present. The hernia itself is irreducible. At the junction of the stomach, at the site of herniation through the diaphragm, an ulcer crater is present. There is no evidence of an ulcer in the duodenal cap. There are extensive osteo-arthritis changes throughout the dorsal spine' (Fig. 1).

*Diagnosis.* The diagnosis, then, was hiatus hernia associated with a gastric ulcer and extensive fibrosis of the oesophagus.

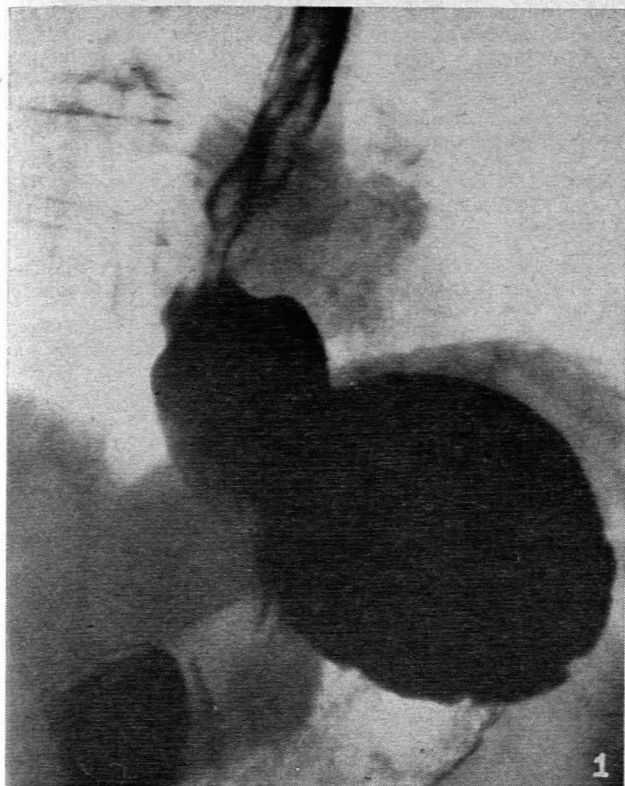


Fig. 1. Barium meal X-ray showing marked shortening of the oesophagus and gross thickening of the mucosal folds. The thickened soft tissues of the oesophagus are clearly seen. An irreducible hiatus hernia is present and, at the site of herniation, in the stomach an ulcer crater is present.

### Discussion

The causation of hiatus hernia is still widely discussed. Some attribute it to an inherent weakness of the diaphragmatic muscles, allowing the stomach to herniate into the thorax. Others—and with these I agree—regard hiatus hernia as secondary to gastric disease. It is pointed out that gastroduodenal ulcers are often associated with hiatus hernia. Gastric retention may cause reflux oesophagitis and subsequent hiatus hernia. The symptoms of hiatus hernia may resemble those of peptic ulcer. This is important in view of the surgical intervention which is often proposed. We have seen many such cases where after the surgical intervention the patients present themselves with the same symptoms. Unless one clears up the gastric symptoms first, direct surgical treatment of the hiatus hernia may not be rational.

**Gastric Ulceration.** There are 3 sites of gastric ulcer associated with hiatus hernia: (1) Duodenal or gastric ulcer localized in the usual sites of the fundus of the stomach or duodenal cap; (2) gastric ulcer situated in the herniated portion of the stomach; (3) a Barret's ulcer of the oesophagus. According to P. Marchand the incidence of herniated gastric ulcer in hiatus hernia is 10%.

**Treatment.** The question of treatment presents certain difficulties. Before surgical intervention is decided

upon certain points must be elucidated. Surgical intervention is not justified unless the underlying cause of the hiatus hernia is treated. Then the condition of the oesophagus must be considered. It may be very irregular and fibrosed, making surgical intervention almost impossible. As already mentioned, we have seen cases where the surgical repair did not succeed in maintaining the hiatus hernia under control.

In the present case, surgical intervention is not indicated at this stage. Treatment should be continued on medical lines with a view to correcting the ulcerative lesion.

### CASE 2. GASTRIC ULCER HIGH ON LESSER CURVATURE

A patient 48 years old, with no history of any digestive troubles, consulted me for acute pains in the upper part of the chest with slight irradiation to the left shoulder-region. There were no gastric signs such as heartburn, vomiting or hunger pain, and no tenderness in the epigastric region. The pain came intermittently and had no relation to food intake; food actually quietened the pain, which often came on at night. These symptoms had been present for 6 weeks. Clinical examination did not reveal anything abnormal in the cardio-vascular system; the blood pressure was normal the pulse full and regular, and on radioscopy the heart was not enlarged. A provisional diagnosis was made of a high-situated gastric ulcer and treatment instituted at once. A few days later, an X-ray examination was reported on as follows:

'The stomach is orthotonic. High on the lesser curve an irregular ulcer-crater is present. There is no

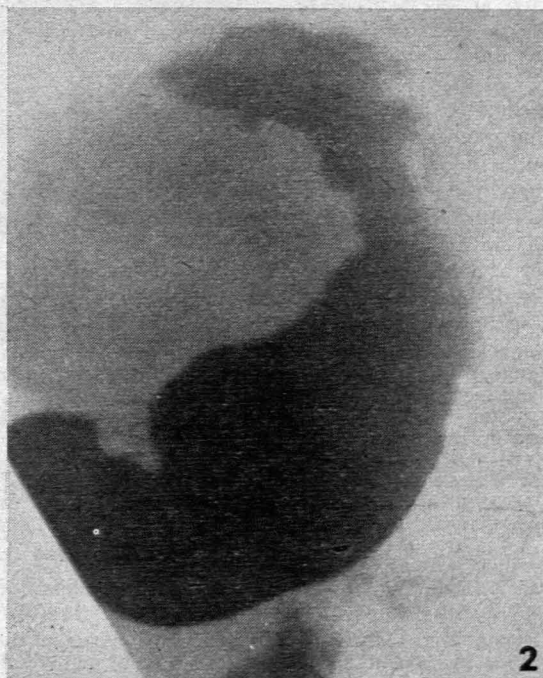


Fig. 2. Barium meal X-ray. The stomach is orthotonic. High on the lesser curve an irregular ulcer-crater is present. There is no evidence of mucosal destruction to be seen in the region of the ulcer crater, and there is no evidence of a filling defect.

evidence of mucosal destruction to be seen in the region of the ulcer crater and there is no evidence of a filling defect.'

The patient was given a diet rich in proteins, but was forbidden to take milk at all.\* He was asked to keep an



Fig. 3. Barium meal X-ray. There is a slight irregularity of the lesser curvature of the stomach, but no sign of an ulcer crater to be seen.

emotional balance and was also given some anti-cholinergic tablets. After 6 weeks, another X-ray examination was made, with the following result:

'There is a slight irregularity of the lesser curvature of the stomach, but no sign of an ulcer crater to be seen.'

#### Case 3. GASTRIC ULCER HIGH ON LESSER CURVATURE

Mrs. Z.E., aged 40, complained of chest pain with slight propagation to the back. As the pain was high up in the chest, the patient thought that she had some lung trouble and applied embrocations and took aspirin, but the pain did not diminish at all, and 12 days later I was called in to see the patient. There was no evidence of any pulmonary disease, or of cardiac involvement. From the gastro-intestinal point of view there was a complete absence of any signs. In view of the frequency with which I had lately met with high chest pains linked with high-situated gastric ulcers, I submitted the case for X-ray, which confirmed the diagnosis of a gastric ulcer situated high in the lesser curvature. The X-ray report was as follows: 'On the lesser curvature of the stomach a shallow ulcer crater is present. The outline of the ulcer crater is smooth and well defined.'

\* Gillman and Gilbert have shown experimentally that a disturbance of calcium-phosphorus metabolism may result in lesions of the kidney and arterial calcification with ulcers in the stomach or duodenum and coronary thrombosis. I have been able to confirm these findings clinically. I have found milk to be injurious in peptic ulcer and that patients did well on a high-protein diet with no milk.<sup>3</sup>

The patient was put on a high-protein diet with no milk and given anticholinergic therapy. The symptoms disappeared and an X-ray taken 3 months later showed no evidence of the pre-existing gastric ulcer. The X-ray report was as follows: 'The ulcer crater previously noted on the lesser curvature of the stomach has disappeared completely. The mucosal pattern of the stomach is less coarse than on the previous film.'

#### Case 4. TERTIARY SPASM OF THE OESOPHAGUS WITH SMALL SLIDING HIATUS HERNIA AND GASTRIC ULCER ON LESSER CURVATURE

Mrs. Z.M., aged 67, mother of the patient in case 3, consulted me for frequent abdominal pains. The only history was that for the last few years she had suffered frequent violent pains in the chest, and that a diagnosis of vagus irritation and the possibility of angina pectoris had been considered. The pain was high up in the chest with referred pain in the back. In recent months this chest pain had eased off, but abdominal pain had made an appearance.

On clinical examination nothing abnormal was found in the cardio-vascular system; blood pressure normal, no arrhythmia, no dyspnoea. On cardioscopy the heart limits were normal. No evidence of pulmonary disease was found. There was absolutely no sign or symptom pointing to gastric disease; no pain in the epigastric region, no hunger pain, no vomiting, no loss of appetite, no flatulence, no eructation. The only clinical evidence of a possible gastric ulcer was the chest pain which appeared some years ago but subsided lately, and the abdominal pain. A barium enema carried out by Dr. Eric Samuel did not reveal anything abnormal, but in view of the chest pain a barium meal was done, which revealed tertiary spasm of the oesophagus and pseudo-diverticular formation (Fig. 4) with a small sliding hernia and a shallow ulcer on the lesser curvature of the stomach.

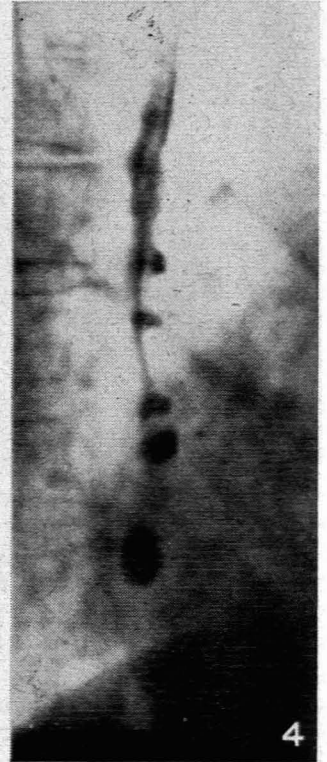


Fig. 4. There is a well-marked tertiary spasm of the oesophagus accompanied by pseudo-diverticular formation. A small sliding hiatus hernia is present at the lower end of the oesophagus.

#### SUMMARY AND CONCLUSION

Four cases of gastric ulcer (2 with hiatus hernia) are described, presenting with pain in the upper part of the chest, and little else suggesting a gastric condition. The pain in one case was very mild. In such cases the localization of the pain (high in the chest), and often its mildness, should suggest immediate investigation for gastric ulcer and hiatus hernia. Much time may otherwise be lost.

#### REFERENCES

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