A CASE OF MALIGNANT STOMAL ULCER

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The following case of malignant stomal ulcer is reported because of the unusual site of a primary growth. This may be an example of an ulcer-cancer, but conclusive evidence is lacking. Stomal ulcers are common enough, but this patient had no symptoms such as would make him seek advice in the twelve years following his operation. Hurst in 1937 stated that 10% of gastro-enterostomies performed for duodenal ulcers develop stomal ulcers. In cases of gastro-enterostomies for gastric ulcers or following partial gastrectomy Hurst says that the incidence is much less, as the gastric acidity is lower. For the same reason, in cases operated on because of carcinoma stomal ulcers never (Hurst) develop.

Clinical History

A male chemical worker aged 56, employed in making soda ash, was referred to the Liverpool Chest Hospital by the tuberculosis department as a case for observation. He was admitted on February 14, 1940, with dyspnoea on exertion, a slightly productive cough, loss of weight, dull aching pains in his left chest, and hoarseness. These symptoms had developed insidiously since November, 1939.

In 1925 he had had gastric symptoms, and as the condition did not improve he was referred to the Manchester Royal Infirmary, where in March, 1928, an operation was performed. An ulcer on the lesser curvature of the stomach was found which had eroded into the pancreas. The ulcer was excised locally, using the cautery, and an anterior gastro-enterostomy with an entero-anastomosis was performed. No gastric analysis was made. The patient apparently had a smooth convalescence.

Functional inquiry revealed little of note. His appetite was fair; he had occasional simple regurgitation of food and flatulence with greasy foods, though he ate bacon with impunity. He had no abdominal pain. His bowels were regular, the stools formed and always brown in colour, but he was occasionally troubled with bleeding piles. His best weight was 10 st. 13 lb. in 1937. In 1939 his usual weight was 10 st. 3 lb. On admission he weighed 9 st.

Examination revealed a tall gaunt man, anaemic, with pale yellowish-grey complexion. His nutrition was only fair, and suggested that he had recently lost flesh. There was no clubbing of his fingers. He had a long narrow chest, which was nevertheless barrel-shaped. There was some dullness of the bases posteriorly, with weak breath sounds and fine rales. The heart was of normal size and no murmurs were present. The blood pressure was 120/70. The abdomen was resistant, and no masses were palpable nor was any tenderness elicited. There were no palpable glands in the axillae, groin, or cervical region.

Radiographs of the chest taken on February 19 suggested bronchiectasis of the lower half of both lungs, enlarged root glands, and spotty shadowing in both lung fields. A differential diagnosis of active pulmonary tuberculosis, pneumoconiosis, or carcinomatosis was made. A lipiodol radiograph showed no direct evidence of bronchiectasis or bronchial obstruction. The sputum was persistently negative for the tubercle bacillus. The blood sedimentation rate at one hour was 50% for blood plasma (modified Zeckwer and Goodell).

The patient's general condition gradually deteriorated, and he died in his sleep on March 16.

Post-mortem Findings

A necropsy was performed. The lungs contained widespread cancerous metastases. The mediastinal lymph glands were grossly enlarged and cancerous. The pleural lining was free. There was an increase in free fluid in the pericardial sac—about 300 c.cm. The heart was of normal size. The muscle was soft and flabby, with fatty degeneration. There were no valvular abnormalities. The aorta showed fatty changes. The liver was of normal size and contained widespread metastases.

The stomach revealed a large malignant ulcer at the junction of the stoma of the gastro-enterostomy with the distal greater curvature. It was about two inches in its greatest diameter. There was a fine linear scar across the lesser curvature, no doubt the site of the old ulcer. There were enlarged glands in the mesentery of the bowel, and the para-aortic glands formed huge masses along the vertebrae from the diaphragm to the bifurcation of the aorta. The gall-bladder, pancreas, spleen, suprarenal glands, kidneys, bladder, prostate, and thyroid showed nothing of note.

The stomach was examined by Prof. Davie at the University of Liverpool. He reported: "Section has been made of a large area of the ulcer and shows widespread active and infiltrating adenocarcinoma. It is not possible at this stage to say whether or not the present cancerous growth was preceded by a simple stomal ulcer, as the malignant involvement is too extensive. The secondary deposit in the liver shows the same adenocarcinomatous structure as the primary growth, which may have been either gastric or intestinal originally, probably the former."

Discussion

Stewart and Hurst in 1931 compared the incidence of chronic ulcer and cancer of the stomach at various sites. Their series of cases may be summarized as follows.

Site of Stomach	Ulcer	Cancer
Cardiac	1 per cent.	15 per cent.
Fundus	82 " "	13 " "
Prepyloric	12 " "	66 " "
Rest of stomach	5 " "	6 " "

Stewart states that about 17% of carcinomata start in an ulcer. Most figures are in approximate agreement with the above. None of the standard textbooks in medicine or pathology mention cancer as a complication of a stomal ulcer. In the *Quarterly Cumulative Index Medicus* from January, 1937, to September, 1939, no case of a malignant stomal ulcer is reported.

The finding of cancer on the greater curvature of the stomach is by no means uncommon, and the site in this case may have been sheer coincidence. On the greater curvature the carcinoma is usually of a fungating type, while the ulcerating type tends to occur at the prepyloric area. In cases of gastro-enterostomy, however, the stoma may be said to be subject to the same influences as the pylorus. Thus, in the case reported this may have been a deciding factor which provoked an ulcerating type of cancer. On the other hand, the case may be a true example of ulcer-cancer.

It is also of interest that the natural history of the cancer in this case was somewhere under twelve years and was of a symptomless nature. The exact age of the cancer must be a matter of conjecture, but if one likes to assume that the patient developed a stomal ulcer within three years of operation, then how long may he be said to have harboured a cancer? Walton, with his careful judgment and experience, has recently reported the difficulties in the treatment and prognosis of carcinoma of the stomach. In view of the above case, it would be interesting to learn the average natural life of a cancer—a point which must receive due regard.

Summary

A case of malignant stomal ulcer is reported.

No case of malignant stomal ulcer has been recorded in the past three years of the *Quarterly Cumulative Index Medicus*.

The problem of an ulcer-cancer or primary cancer is discussed.

The question of the average natural life of a cancer is raised.

My thanks are due to Prof. Davie for his pathological report, to Dr. T. C. Clarke for permission to publish this case, and to Dr. Nicholson, who kindly supplied the summary of the findings in 1928.