Discussion to the paper by H. Herlinger

CHAIRMAN: DR GEOFFREY WATKINSON

CHAIRMAN. Have you any idea of the success rate of diagnosis of carcinoma of the pancreas. Are there any false positives?

HERLINGER. I haven't attempted to prove any diagnostic abilities but I was quite happy to go back after I had been proved wrong, to see whether I could have been right if I had known more, and making use of this retrospective diagnosis I would say that the correlation between what was found at laparotomy and what was found at arteriography was very close, particularly in the early stages. Even now I still make mistakes and I wouldn't burden you with these. The examination has enormous potential.

POLLOCK. Might I ask what the clinical indication for the examination was? Were most of these patients with pancreatic disease, jaundiced?

HERLINGER. There were large sections, out of (and I quote roughly) about thirty carcinomas; of these about twelve were jaundiced. We wanted to know whether one could predict the rate of operability mainly, that's really the main point we were investigating. Another group in carcinoma had just pain and there was no jaundice, these were cases of the body and the tail of the pancreas. There was a small group, three or four who presented some form of malabsorption—one very recently treated as an ulcerative colitis here. Then there was one with venous thrombosis. That's roughly the distribution of symptoms.

QUESTION. Could I ask whether the position of the lesion within the pancreas made any difference to the ease with which you picked up the positive results, was it easier to pick up results in the head, the body or the tail?

HERLINGER. The body is the worst from the arteriographic point of view because the feeding vessels are covered by larger vessels, but the tail is probably the best and the head is reasonably accurate as well. In the head one has the added examination possibility of the splenoportal venogram. We use all methods that are available. In the body retroperitoneal gas tomography is extremely important in diagnosis.

QUESTION. I was wondering, why in the inflammatory bowel disease one gets the increase in number of the vasa brevia. Does this occur in Crohn's disease, or in ulcerative colitis? Could this not just be due to the shortening of the bowel which we know takes place?

HERLINGER. Vasa brevia exist in Crohn's disease, but the large major vasa-recta are more numerous in ulcerative colitis. Yes, I did suggest this to Professor Goligher and he did not take to this at all. We don't know.

CHAIRMAN. I think this is one of the most exciting possibilities of this technique, if we can get any clinical method to distinguish Crohn's disease from ulcerative colitis this will be a tremendous advance.

The gastrocamera*

G. D. HADLEY

Consultant Physician to the Middlesex Hospital

THE DEVELOPMENT of the fibroscope by Hirschowitz in 1960 enabled proximal photography to be undertaken.

The gastrocamera (GT5) was first produced in Japan in 1950 by the Olympus Optical Company and has been steadily improved and increasingly used in Japan. Recently a combined fibroscope and gastrocamera has been developed (GTF-A) which enables both visualization and photography to be performed.

The technique of the examination was described and the normal gastric appearances illustrated by colour photographs. The indications for use of the gastrocamera were described and its value and limitations illustrated by considering three groups of patients, namely those with X-ray negative dyspepsia, with benign gastric ulcer and with gastric carcinoma.

Of 118 patients with X-ray negative dyspepsia, twelve were found to have gastric ulcers, two multiple polyps and one a carcinoma. Of 103

*Editor's abstract.

patients with benign gastric ulcers the gastrocamera detected the lesion in 70% and barium meal examination in 88%. The gastrocamera failed to demonstrate a radiologically shown ulcer in 30% but visualized ulcers in 13% of the series where X-rays failed to do so. Of twenty-six patients with gastric carcinomata 65% were demonstrated by both photography and X-ray, 23% by X-ray alone, 8% by photography alone while 4% of the carcinomata were not demonstrated by either method. The method proved of value in the investigation of gastrointestinal bleeding and in the post-operative stomach.

It is concluded that gastrophotography is safe, simple and an easily learnt technique particularly of value in the investigation of patients with negative X-rays and suspected carcinomata.

More recently a combined fibroscope and biopsy forceps has been introduced by the same company enabling gastric biopsy to be conducted under direct vision. There is so far little experience of this instrument in England but it appears to be a useful advance.