

**13. The Gastro-oesophageal Junction in Duodenal Ulcer:** R. J. EARLAM (H. D. Ritchie), The London Hospital.

It is generally accepted that the entry of gastric acid into the oesophagus may give rise to retrosternal pain. It now seems likely that it may also cause epigastric pain, since introduction of acid into the lower oesophagus reproduced this pain (Earlam, 1970). In this study 70 duodenal ulcer patients were tested in an attempt to find out whether the gastro-oesophageal junction in those with epigastric pain had different pressure characteristics

from those with no pain. Manometric techniques, previously described (Ellis et al., 1967), were used.

In 52 patients with epigastric pain the zone of elevated pressure at the gastro-oesophageal junction was significantly longer ( $P=0.02$ ), by open-tip measurements (4.8 cm., S.D. 1.6), than in 18 patients without epigastric pain (4.4 cm., S.D. 0.8). A similar finding was shown by balloon measurements (6.0 cm., S.D. 1.9; 5.3 cm., S.D. 0.9;  $P=0.06$ ). Patients without epigastric pain had a higher maximum pressure, measured by balloon (34.6 cm. H<sub>2</sub>O), than those with no pain (25.4 cm. H<sub>2</sub>O).

Patients with duodenal ulcer can be divided into two separate groups: those without epigastric pain, who have a high pressure and a short zone of elevated pressure, and those with epigastric pain, who have a low pressure and an elongated zone.

EARLAM, R. J. (1970), *Br. med. J.*, **4**, 714.

ELLIS, F. H., jun., KISER, J. C., SCHLEGEL, J. F., EARLAM, R. J., MCVAY, J. L., and OLSEN, A. M. (1967), *Ann. Surg.*, **166**, 640.