

Oesophageal manometry

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Manometry is used to diagnose oesophageal motility disorders and to assess the oesophageal body and LOS function before surgery, such as antireflux operations. Conventional manometry was developed in the 1950s with water-perfused catheters. Recordings were made by passing a multilumen catheter (usually with only eight channels) down the oesophagus and into the stomach. The catheter is withdrawn progressively up the oesophagus and recordings are taken at intervals of 0.5–1.0 cm to measure the length and pressure of the LOS and assess motility in the body of the oesophagus during swallowing water boluses. With the introduction of the colour contour plot by Ray Clouse in 1995, conventional manometry is gradually being replaced by high-resolution manometry (HRM) with solid-state pressure catheters. A typical HRM catheter has 36 circumferential sensors along its length, each spaced 1 cm apart. HRM defines important anatomical landmarks and abnormality of the UOS, LOS and hiatus hernia. Christian Johann Doppler, 1803–1853, Professor of Experimental Physics, Vienna, Austria, enunciated the Doppler principle in 1842. Ray E Clouse, 1951–2007, gastroenterologist, Washington University, St Louis, MO, USA. - - It also measures the contractility of the oesophageal body (Figure 66.9). Various parameters are measured in response to a standardised protocol of drinking a small volume of water. Other optional evaluations include solid test swallows and/or - pharmacological provocation tests. Oesophageal peristalsis that is triggered by the swallow centre in the brain is called primary peristalsis. A hierarchical analysis is established under the Chicago classification to diagnose various oesophageal motility disorders.

Mucosa Muscularis mucosae Muscularis propria Adventitia Submucosa Figure 66.8

Endosonographic picture of an oesophagus. Five layers of the oesophageal wall can be seen.

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