Carcinoma of the oesophagus and cardia—endoscopy

W. ROESCH
M.D.

Department of Medicine, University of Erlangen-Nürnberg, West Germany

Summary

Oesophagoscopy will establish a definite preoperative diagnosis of a radiologically suspected malignancy by guided biopsy and/or brush cytology. The rigid instruments should only be used for photodocumentation since the hazards are considerably greater compared with the fibre-endoscopes. In obstructing lesions of the lower third of the oesophagus where a primary gastric cancer is suspected a passage of the instrument into the stomach should be attempted since a positive biopsy is easier obtained after a U-turn manoeuvre.

THE differentiation of benign from malignant lesions of the oesophagus and the cardiac region has been greatly improved by the second generation fibreoptic oesophagoscopes. Whereas with the rigid instrument the inspection of the oesophago-gastric junction was often impossible due to the natural curve of the organ to the left, modern instruments even allow a close-up view of the cardia from the stomach. Endoscopic examination of the oesophagus is indicated in persistent dysphagia, foreign body sensation or retrosternal pain even when radiological examination does not show any abnormality. Oesophagoscopy should be performed to establish a definite preoperative diagnosis of a suspected malignancy by guided biopsy or brush cytology. Because of the poor prognosis of oesophageal and cardiac neoplasms this type of examination allowing a safe, convenient and accurate diagnosis should be used even in patients with minor complaints since Japanese studies have shown that corresponding to the so-called early gastric cancer an early oesophageal cancer limited to mucosa and submucosa can be diagnosed by thorough endoscopic examination (Endo *et al.*, 1971; Nabeya, 1970).

During the examination with the rigid instrument radiologically documented lesions may occasionally be undetectable when the instrument is pushing the lesion ahead by stretching the oesophagus. This rarely happens with fibreoesophagoscopes which offer the great advantage of suction, air insufflation and rinsing facilities. The use of the rigid instrument was hazardous in lesions of the upper third of the

oesophagus since it had to be introduced blindly. Prograde fibreoptical systems allow advancement of the instrument under direct vision even in the immediate postpharyngeal region.

The endoscopic examination of the oesophagus should always be combined with biopsy and cytology not only to ascertain the diagnosis malignancy but also to differentiate between squamous epithelial carcinoma and adenocarcinoma. This is especially true in the lower third of the oesophagus. Although there is a risk of perforation we always try to manoeuvre the flexible tip of the instrument through a lumen-stenosing process near the cardia to get an idea of the extent of the lesion within the stomach. In cardiac carcinoma it might be easier to get a positive biopsy reported when the specimen is taken after a U-turn. One should, however, be very careful in pushing the instrument through a stenosis avoiding too much force. In the oesophagus two conditions may prevent biopsy of a representative material; the carcinoma is not infrequently found undermining the normal epithelium causing a stenosing protrusion. Occasionally deep biopsy with a forceps pressed strongly into the mucosa will reveal carcinomatous structures covered by unsuspecting squamous epithelium.

Extensive necrosis of the tumour may render only necrotic material without positive evidence. When the oesophageal lumen is almost completely occluded and a tumour can only be suspected the use of a cytology brush is indicated. The brush advanced through a narrow stenosis will often gain excellent tumour material.

In contrast to other authors (Kobayashi *et al.*, 1970) we prefer to take 4-6 biopsies first and then to brush the lesion under direct vision. The brush is not pulled back through the forceps channel but rather stays in the instrument to avoid loss of exfoliated cells.

Whereas, in earlier years, using predominantly rigid instruments, biopsy confirmation of a suspected malignancy succeeded only in about 60% (Stadelmann, Elster and Ottenjann, 1969) the combined use of direct vision biopsy and cytology with fibreoptics

TABLE 1. Diagnostic accuracy in carcinoma of the oesophagus and cardia

	Biopsy positive	Cytology positive	Biopsy + cytology positive
Squamous epithelium 11	9	9	11
Columnar epithelium (cardia) 6	6	6	6

significantly improved diagnostic accuracy (Table 1). Similar results are reported by Kobayashi and co-workers (1970).

Oesophagoscopy may have a therapeutic effect in patients with bolus obstruction due to a stenosing carcinoma. The bolus, usually meat, may be cut into fragments with the biopsy forceps or extracted in toto with a diathermy loop.

Endoscopic follow-up examinations of patients being operated because of an oesophageal or cardiac neoplasm are advisable to detect a recurrent growth as early as possible. Radiological studies usually are very difficult to interpret in this regard; we follow-up our patients at 6-month intervals.

There are several conditions with an increased risk of developing oesophageal carcinoma; Plummer-Vinson syndrome, long-standing achalasia and strictures after lye ingestion (Arrants, Albuerne and

Jurkiewicz, 1965). It may be possible by routine endoscopic controls to detect neoplastic growth in these high-risk patients at an early stage.

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