

# Letters to the Editor

## An experience of rigid esophagoscopy in 294 cases.

Sir,

Rigid esophagoscopy is a well-established endoscopic procedure for both diagnostic and therapeutic indications. Ritchie et al<sup>1</sup> studied the efficacy and safety of rigid esophagoscopy in diagnostic and therapeutic settings in a consecutive series of 404 patients with esophageal carcinoma and compared these to flexible esophagoscopy in the same group. They concluded that rigid esophagoscopy in the presence of carcinoma retains an important diagnostic and therapeutic role which can be achieved with a low incidence of perforation in high-risk patients. In another study<sup>2</sup> the same authors compared diagnostic rigid and flexible esophagoscopy in carcinoma of the esophagus and concluded that diagnostic esophagoscopy can be achieved without perforation with either instrument, but the chance of diagnosing carcinoma was significantly greater with the rigid instrument. In Manara et al<sup>3</sup> their experiences lead them to reject abandoning the rigid esophagoscope for the flexible optical fibres as even those Ear, Nose and Throat (ENT) Departments with vast experience in the use of fibres are not always able to remove all kind of foreign bodies. Foreign body perforation of the esophagus is a rare but important subentity of esophageal perforations, which responds well to surgical treatment.<sup>4</sup> The risk of iatrogenic perforation of the esophagus was greatest in old patients who had a lump of meat stuck in the distal 3rd of the esophagus.<sup>5</sup> The objective of this study was to review the indications and complications of rigid esophagoscopy in Sudanese patients (number 294 cases) who had rigid esophagoscopy from January 1995 to December 1999 at the ENT Department, Wad Medani Teaching Hospital, Sudan. All these patients were clinically diagnosed and investigated before endoscopic examination by plain radiograph, Barium swallow and 10 patients with carcinoma esophagus had previous flexible endoscopy. The study included only patients who had rigid esophagoscopy for the first time. All patients who had repeat endoscopy for stricture dilatation were excluded. All patients had the procedure performed under general anesthesia with suxamethonium muscle relaxation using a Negus esophagoscope. Hospital records of these patients including operative findings were analyzed with respect to age, sex, indication and outcome.

Of the 294 cases studied, 157 cases were females and 137 were males. Female to male ratio was 1.1:1. Patients' ages ranged from 8 months to 80 years. Table 1 shows the indications for rigid

Table 1 - Indications, number of patients and percentages.

Indication	Number of patients	%
Esophageal foreign body	110	37
Esophageal carcinoma	84	29
Sideropenic dysphagia	59	20
Reflux esophagitis	16	5
Esophageal stricture	9	3
Neurological dysphagia	7	2
Cervical osteophytes	6	2
Pharyngeal pouch	3	1
<b>TOTAL</b>	<b>294</b>	<b>100</b>

esophagoscopy, number of patients and percentages. In 178 cases (60.5%), the procedure was performed for therapeutic indications such as foreign body removal or esophageal dilatation for a stricture or rupture of a postcricoid web. In 116 patients (39.5%) the procedure was carried out for diagnostic purposes in cases presenting with dysphagia. Only 2 patients (1%) had esophageal perforation due to difficult sharp foreign body extraction which resulted in mediastinitis, septicemia and death. The slight increase in the female to male ratio of 1.1:1 is most likely due to a relatively high incidence of esophageal carcinoma and sideropenic dysphagia in female Sudanese patients.<sup>6</sup> Manara et al<sup>3</sup> also noticed a female preponderance in a study of foreign body extraction with rigid esophagoscopy. In this study, esophageal foreign body accounted for 110 cases (37%). Descriptive features of esophageal foreign body by age, site and symptoms were largely compatible to those reported in the literature. Coins were the most frequent foreign body in children and meat was the most common offender in the material taken as a whole. Esophageal carcinoma accounted for 84 cases (29%). The efficacy and safety of rigid esophagoscopy in the diagnosis of esophageal carcinoma is well-established.<sup>1,2</sup> In 10 cases (12%) of these carcinoma patients, initial biopsy with flexible endoscope failed to prove malignancy. In all carcinoma patients (100%) who had rigid esophagoscopy histopathology reports confirmed the diagnosis. Sideropenic dysphagia or Plummer-Vinson syndrome was encountered in 59 patients (20%). The high incidence of this condition among Sudanese patients was previously noticed by the author and reported.<sup>6</sup> All these patients underwent endoscopic dilatation, and good results without any

complications were achieved. In 16 patients (5%) who presented with dysphagia, there was evidence of reflux esophagitis and no other pathology was detected. This low number of patients with reflux esophagitis may be explained by ethnic differences in gastro-esophageal reflux disease. Nine patients (3%) had benign esophageal strictures, which were successfully dilated without any complications. In 7 patients (2%) with dysphagia of neurological nature, rigid endoscopy was carried out to exclude a concomitant malignancy. In 6 patients (2%) dysphagia was due to prominent anterior cervical osteophytes pressing on the upper esophagus and the hypopharynx. The diagnosis of these cases may be established by conventional x-ray of the spine, esophagogram and computerized tomography (CT). Severe forms of this condition are encountered less commonly with Forestier's disease, which is diffuse idiopathic skeletal hyperostosis. Three patients (1%) had pharyngeal pouch as a cause for their dysphagia and rigid endoscopy was considered to exclude an associated carcinoma. Pharyngeal pouch usually occurs in people over 70 and endoscopic stapling is the method of choice for its treatment. Two patients (1%) had esophageal perforation and died as a result of mediastinitis and septicemia. These 2 patients were elderly, poorly controlled diabetic female patients and they had difficult sharp foreign body extraction. Very early post-operative surgical emphysema of the neck and earache were the presenting symptoms. Perforation was confirmed radiologically. Parenteral antibiotics were started, naso-gastric tube was inserted but both patients died

of septicemia within the first 48 hours. Iatrogenic perforation of a normal esophagus with foreign body manipulation is a known complication.<sup>4,5</sup> In this series, no instrumental esophageal perforations were encountered in patients with carcinoma of the esophagus. Rigid esophagoscopy is a cheap, useful and a safe procedure for both therapeutic and diagnostic purposes.

### References

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