

The globus syndrome: value of flexible endoscopy of the upper gastrointestinal tract

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Abstract

Flexible endoscopy of the upper gastrointestinal tract usually does not form part of the primary diagnostic evaluation of the globus syndrome. In a prospective trial, a flexible endoscopy was performed in 51 globus patients with normal results of the laryngologic and radiographic examination. Pathologic findings requiring therapy were diagnosed in 70.6 per cent of cases. The most frequent findings were reflux oesophagitis ($n = 24$; 47 per cent) and hiatal hernia ($n = 25$; 49 per cent). In 16 cases (31.4 per cent) these were accompanied by other pathologic lesions. A total of 32 patients (62.7 per cent) suffered from oesophageal diseases as sole aetiological factors of the globus syndrome, which led us to postulate a causative relationship in these cases. Flexible endoscopy therefore can contribute significantly to the differential diagnosis of the globus syndrome. It must be kept in mind, however, that there is a 'blind zone' for endoscopic assessment in a region of the hypopharynx, thus some indications may require rigid endoscopy.

Key words: Globus syndrome; Oesophagoscopy; Gastroscopy; Oesophagitis, reflux; Hernia, hiatal

Introduction

Patients with a globus syndrome are normally referred to an otolaryngologist for primary diagnostic evaluation. If a pathological finding is lacking, however, the further diagnostic routine is not standardized. The internistic endoscopist usually gets involved after a specific indication has been established by preceding selective laryngologic, radiologic and also neurologic investigations. The importance of specific diagnostic procedures in regard to the differential diagnosis of the globus syndrome has only been documented in a few individual cases, thus rendering comment on this issue impossible. Much more comprehensive information is available on the differential diagnosis of dysphagia, mostly however without clear distinction between the symptoms of globus and dysphagia. In a study on more than 1700 endoscopies of the upper gastrointestinal tract the efficiency and indication of endoscopy in regard to the final diagnosis was assessed in retrospect in comparison to radiologic or functional tests, e.g. manometry. It was shown that the endoscopic evaluation had not been superior to the radiologic examination in establishing the diagnosis and thus had not been indicated primarily (Kahn *et al.*, 1988). In 34 per cent of 450 patients with dysphagia in a different study, pathologic motility patterns were observed radiologically, which had not been noted with the endoscopic technique (Halpert *et al.*, 1985). As was shown in a comparable study in 10 patients, flexible endoscopy is inferior to radiologic examination and is also inferior to rigid endoscopy for postcricoid lesions as well (Bingham *et al.*, 1986).

Therefore, it seems justified to question whether flex-

ible endoscopy is of any value in the differential diagnosis of the globus syndrome. This is to be evaluated in our own group of patients.

Patients

In a prospective study, a total of 51 patients with the principal symptom of globus syndrome (38 females, 13 males; average age 52.7 ± 16.8 years) were either examined by endoscopy primarily ($n = 20$) or referred for further investigations after normal laryngologic as well as radiologic examination ($n = 31$). Flexible endoscopy was performed in the usual manner with the patient lying on his left side. All patients received local anaesthesia of the pharyngeal mucosa with lidocain spray, while premedication with benzodiazepin was given in approximately 50 per cent of cases.

Results

A total of 72 pathological findings were diagnosed endoscopically in 70.6 per cent of examined patients with globus sensation (36/51 patients). The oesophageal lesions ($n = 40$) are listed separately in Table I. The incidence of reflux oesophagitis in regard to all pathological findings of the oesophageal region amounts to 67 per cent (24/36 patients) as compared to 47 per cent in all 51 patients with globus syndrome. The findings in the region of the cardia and stomach are given in Table II. The high incidence of axial hiatal hernias ($n = 25$) in 49 per cent of globus patients (69.4 per cent of patients with pathologi-

TABLE I
ENDOSCOPIC FINDINGS IN THE OESOPHAGEAL REGION IN 36 OUT OF 51 GLOBUS PATIENTS. NUMBERS AND PERCENTAGES IN RELATION TO PATHOLOGIC FINDINGS; IN PARENTHESES: INCIDENCE IN ALL 51 PATIENTS EXAMINED

	Number of findings <i>n</i>	Incidence (%)	
Reflux oesophagitis	24	60	(47)
Grade I	15		
Grade II	6		
Grade III	3		
Candida oesophagitis	3	7.5	(5.9)
Achalasia	3	7.5	(5.9)
Varices	2	5.0	(3.9)
Ectopic gastric mucosa	2	5.0	(3.9)
Polyps	2	5.0	(3.9)
Diverticula	3	7.5	(5.9)
Foreign bodies	1	2.5	(2.0)
Total	40	100.0	(78.4)

cal endoscopic findings) is surprising. In nine patients, a hiatal hernia was the only finding, whereas it represented an additional diagnosis in 16 cases.

Discussion

Of patients visiting an otolaryngologist, 4.1 per cent suffer from the main symptom of globus sensation, as could be documented in a large study examining a total of 4330 patients (Moloy and Charter, 1982). It manifests itself approximately three times more commonly in women than in men (Editorial, 1989), a fact also true for our patient group. Significant differential diagnostic problems exist, however, in the evaluation of causal relationships.

Looking at our findings obtained by flexible endoscopy in 51 globus patients, the high incidence of reflux oesophagitis (47 per cent) is remarkable. It remains a matter of controversy whether a causal relationship exists in these cases. Wilson *et al.* (1987) show the incidence of reflux oesophagitis to be a mere 15 per cent in globus syndrome and therefore do not consider the gastroesophageal reflux to be an aetiological factor. In contrast, Batch (1988) claims in a review, that 64 per cent of 136 examined globus patients present with gastroesophageal reflux during radiologic investigation. Anti-reflux medication apparently led to an improvement of globus-related symptoms in 42 per cent; in a further 28.5 per cent of patients treated in this study ($n = 83$), the globus symptoms actually disappeared completely. In agreement with other authors (Steinmann, 1961; Delahunty and Ardran, 1970; Hunt *et al.*, 1970), this observation is taken as a substantial argument in favour of the postulation of a causal relationship between the diagnosis of reflux oesophagitis and an existing globus syndrome. Based on this hypothesis, the endoscopic examination of our own patient group already led to a clarification of the symptoms in 24 cases. Diverticula, candida oesophagitis and ectopic gastric mucosa should equally be recognized as causal factors, if they are associated exclusively with symptoms of globus and not with dysphagic complaints in the sense of a true swallowing disorder. Therefore, another eight of the globus syndrome patients which could be diagnosed by endoscopy can be added to the 24 patients in our group who were diagnosed as having reflux oesophagitis.

Thus, in 32 of 51 patients examined with globus (62.7 per cent), endoscopic findings, which can be viewed as the cause of the symptoms, were diagnosed. The aetiopathogenic role of oesophageal varices, polyps, foreign bodies and carcinomas of the cardia ($n = 10$) in regard to an existing globus sensation certainly remains controversial; perhaps dysphagic complaints are misinterpreted in these cases due to unclear statements.

Regardless of the question of causality of an existing globus syndrome, the diagnosis of pathologic findings mandating therapy was obtained in 33 cases. In addition to the aforementioned reflux oesophagitis ($n = 24$) and candida oesophagitis ($n = 3$), the diagnosis of polyps ($n = 2$), foreign bodies ($n = 1$) and achalasia ($n = 3$) must be mentioned. If lesions of the gastric mucosa are included, i.e. carcinomas ($n = 2$), ulcers ($n = 1$) and inflammatory mucosal changes ($n = 3$), 39 of 51 patients had findings requiring therapy, constituting an incidence of 76.5 per cent. Hiatal hernias were diagnosed by endoscopy in 49.5 per cent of our globus patients, thus showing a high globus-related incidence. This is also confirmed by a prospective study, in which hiatal hernias were found in a 28.2 per cent of 450 patients with dysphagia (Halpert *et al.*, 1985), thus demonstrating a significantly higher incidence (17.6 per cent) than found in a normal control group of more than 3500 persons. An above average frequency of hiatal hernias in cases of globus syndrome is also postulated by Steinmann (1961). He does not differentiate, however, whether the hernia was an additional or isolated finding. Batch (1988) also reports an increased incidence of axial hiatal hernias in patients with globus (54.8 per cent); in three cases the symptoms resolved following fundoplication. In our own patient group, hiatal hernias were associated with other pathologic findings in at least 16 cases. Only in nine cases (17.6 per cent of all patients) did the hernia constitute an isolated finding. Thus there is not an increased incidence in comparison to the cited literature (Halpert *et al.*, 1985). These results do not allow the conclusion that a causal relationship may be postulated between a hiatal hernia and a globus syndrome nor that surgical intervention may be the treatment of choice.

It must be considered however, that a 'blind zone' exists within the region of the hypopharynx and of the upper oesophageal sphincter, which is not amenable to endoscopic evaluation due to the close contact of the endoscope to the wall of the gastrointestinal tract. Therefore, should doubts about the results of the endoscopic examination exist, especially in awareness of the 'blind zone', a rigid endoscopy should be part of the further evaluation.

The flexible endoscopy can contribute to the clarification

TABLE II
PATHOLOGIC FINDINGS OF THE GASTRIC REGION IN PATIENTS WITH THE GLOBUS SYNDROME; IN PARENTHESES: FREQUENCY OF THE EXAMINED PATIENT GROUP ($n = 51$)

Finding	Number (%)
Hiatal hernia	25 (49)
Carcinoma of the cardia	2 (3.9)
Gastric erosions	2 (3.9)
Relapse of the stomach	1 (2.0)
Gastritis of the antrum	1 (2.0)
Ulcer in ileogastric anastomosis	1 (2.0)
Total	32 (62.8)

tion of the aetiopathogenesis in a large number of cases with globus syndrome, and, furthermore, leads to findings which can and must be treated. The investigator should therefore consider the potentially high diagnostic 'yield' of flexible endoscopy for this indication and should perform the examination with utmost care to definitively exclude pathologic lesions.

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