Foreign body in the throat

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SUMMARY

The management of 104 patients complaining of foreign body (FB) in the throat in an accident and emergency (A&E) department was analysed over a period of 7 months. The majority of these patients (88.4%), underwent a soft tissue radiograph of the neck. Less than 10% of the radiographs were thought to be abnormal by the A&E staff. Two thirds of the patients (69.2%) were referred to the ear, nose and throat (ENT) surgeons. Of these 84.7% had indirect laryngoscopy. Eighteen (17.3%) FBs were found in addition to five (4.8%) other causes of the symptom.

It is concluded that routine use of radiographs in the assessment of FB in the throat is inappropriate. By contrast thorough clinical examination and indirect laryngoscopy (IDL) have a high diagnostic yield. A protocol is suggested for managing the condition.

Key words: foreign body, indirect laryngoscopy, radiograph, throat

INTRODUCTION

Treating FBs in the throat is an important part of A&E workload. It is often initially investigated by soft tissue radiographs of the neck because radio-opaque objects are commonly held responsible. However, there are little data available on how this practise influences the outcome. Radiographs, in addition, have cost and health implications. Even though the patient is usually first seen in the A&E department, most of the literature on the topic is from an ENT or radiological perspective. Clear guidance for A&E staff is lacking. Therefore, there was a need to study the management of this condition and to provide recommendations.

MATERIAL AND METHODS

Foreign body in the throat was defined as patients' acute perception that something was stuck in the

oropharynx or neck. It was recognized that the symptom can represent a wide range of pathologies.

The records of adult patients presenting consecutively to Poole General Hospital A&E Department between February and September 1991 were analysed retrospectively. Particular attention was paid to the initial assessment and its effect on the outcome. The management of patients referred for ENT opinion was also studied with regard to investigations and diagnosis.

RESULTS

A total of 104 patients, 58 female, 46 male, presented complaining of FB in the throat. The mean age was 50.5 years (range 16–85) and 51.3 years (range 17–90) respectively. Ninety-two (88.4%) patients had soft tissue radiographs of the neck requested by A&E medical staff who confidently diagnosed two (2.1%) radio-opaque FBs and raised doubt about a further five (5.4%). Seventy-two (69.2%) patients were referred to the ENT team and 60 (83.3%) had radiographic examination prior to referral. All but one of the 32 (30.7%) patients discharged without ENT opinion had radiographs taken.

Eleven (61.1%) FBs were retrieved from tonsils and oropharynx under direct vision by the ENT team. Indirect laryngoscopy (IDL) was performed in the remaining patients. This revealed a further seven (38.8%) foreign bodies, three of which were vegetable matter. A total of 12 (54.5%) fish bones were recovered. Other diagnoses included non-specific inflammation & 'scratch' (Table 1). No abnormality was diagnosed in 78.9% patients.

None of the patients in this series showed signs of oropharyngeal or oesophageal perforation. No complications of impacted FB were seen.

DISCUSSION

The final diagnosis of uncomplicated FB in the throat falls into one of the following categories:

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Table 1 List of diagnosis confirmed on IDL.

Diagnosis	No. of patients (%)
FB detected	18 (17.3)
Vegetable matter/non bony food debris	3 (2.8)
Bone	15 (14.4)
Fish	12 (11.3)
Other	3 (2.8%)
'Scratch'	2 (1.9)
Non specific inflammation	1 (0.8)
Others	1 (0.9)
No diagnosis or normal	82 (78.8)

impaction of radio-opaque or radio-lucent objects, other conditions and no obvious abnormality (Table 1).

The value of radiographs in the management of this condition is only to identify radio-opaque objects — fish bones being the most common in the present series. These however show significant inter-species variation in radiological features.¹ Radiographic appearance of other objects may be similarly inconsistent. The technical difficulty in locating a small FB on a radiograph is compounded by the inexperience of some A&E staff.² This may explain the small number (13%) of confident radio-

logical diagnoses relative to the total number of FBs that were found.

In this study the A&E staff missed 11 bony FBs which were later found to be lodged at easily accessible parts of the tonsil or oropharynx by the ENT team and removed without difficulty under direct vision. A thorough examination in the A&E department might have been more successful than a radiological search. It is possible that improper use of radiographs distracts the A&E staff from full assessment of the patient and gives a false sense of security.

Radiographs of the neck are routinely requested by some junior ENT doctors on the grounds of convenience. This practise rarely adds to the management of the patients. Inappropriate radiographs have an adverse effect on cost, patient safety and waiting times and, in general, they appear to influence the outcome very little.

On the other hand, good local examination remains the most helpful procedure for managing FB in the throat. Combined with indirect laryngoscopy, it has very high diagnostic and therapeutic yield.

Compared with radiographs, IDL has the advantage of being inexpensive, quick and safe. It is immune from radiological pitfalls and may be easier to interpret. However, patient cooperation is required and the technique is operator dependent. Whether

Fig. 1. Protocol for management of FB in the throat in the A&E department.

medical staff in A&E can be trained in the correct use of IDL remains to be studied.

For initial assessment of FB in the throat a thorough clinical examination and IDL is more useful than radiographs, which should be reserved for those in whom IDL is not sufficient, i.e. in complicated cases or when diagnosis is not clear.

In the light of the above data and after discussions with senior ENT colleagues a protocol has been developed for the management of FB in the throat in adult patients (Fig. 1). The authors hope to test this prospectively. It is acknowledged that radiographs are essential for managing complicated cases.³

CONCLUSIONS

A significant number of patients complaining of FB in the throat can be diagnosed by thorough clinical examination. Radio-opaque FB is only one of the possibilities. Routine use of radiographs is not necessary in the initial care and should be reserved

for further assessment of complicated cases. Indirect laryngoscopy is the most helpful procedure when simple measures are not adequate.

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