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Main Article

Is there a role for flexible oesophagogastroscopy in upper aerodigestive tract squamous cell carcinoma?

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Abstract

Introduction: There is growing evidence to suggest that reflux (both laryngopharyngeal and gastroesophageal) has a role in the development of upper aerodigestive tract squamous cell carcinoma. This study discusses the role of identifying reflux in this patient group, and its prevalence.

Methods: Prospective review of patients with head and neck cancer undergoing flexible oesophagogastroscopy as part of their diagnostic investigation.

Results: Forty-five consecutive patients were identified. All patients were found to have evidence of oesophagitis, with 28 having oesophageal erosions and two Barrett's oesophagitis.

Conclusion: Flexible oesophagogastroscopy is a useful test in patients with upper aerodigestive tract squamous cell carcinoma.

Key words: Gastro-esophageal Reflux; Head And Neck Neoplasms; Endoscopes; Gastrointestinal

Introduction

There is growing evidence that reflux (both laryngopharyngeal and gastroesophageal) has a role to play in the pathogenesis of upper aerodigestive tract squamous cell carcinoma (SCC).[1–5] In addition, some authors have suggested that controlling reflux can reduce the risk of recurrence of upper aerodigestive tract SCC.[6] Furthermore, reflux symptoms may be exacerbated by chemotherapeutic agents given in the treatment of upper aerodigestive tract SCC.[7]

With these factors in mind, identifying and treating reflux in patients with upper aerodigestive tract SCC may potentially be as important as encouraging this patient group to stop smoking or drinking alcohol.

We assessed whether patients presenting with upper aerodigestive tract SCC had reflux, using flexible oesophagogastroscopy (a widely used investigation for reflux). Here, we present our results and discuss whether this is a useful test in this patient group.

Methods and materials

We undertook a prospective review of all patients with newly diagnosed upper aerodigestive tract SCC presenting between February 2005 and August 2007. All these patients underwent flexible oesophagogastroscopy as part of their pre-treatment investigation. Appropriate consent was obtained. The results of the procedure were interpreted by the same clinician throughout. Oesophagitis was graded as shown in Table I, using a variation of the Savary–Miller classification.[8]

Results

We included 45 consecutive, prospectively recruited patients with upper aerodigestive tract SCC. The group comprised 13 men and two women, with an age range of 36 to 81 years (mean age, 63 years).

All patients who underwent flexible oesophagogastroscopy had evidence of oesophagitis: 15 patients had grade one oesophagitis, 16 grade two, 12 grade three and two grade five (Figure 1). One patient had evidence of gastritis. Three patients had evidence of oesophagitis despite taking a proton pump inhibitor twice daily (one had grade three oesophagitis and two grade two oesophagitis). No complications were reported as a result of the procedure.

Discussion

Reflux is common in patients with upper aerodigestive tract SCC. In our study, all patients had evidence of oesophagitis of varying degrees. In comparison, 10–14 per cent of patients with reflux symptoms, and without upper aerodigestive tract SCC, have been found to have oesophagitis on flexible oesophagogastroscopy.[9] Thus, our patients showed quite an

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TABLE I

OESOPHAGITIS GRADING*

Grade	FOG findings
1	Hyperaemia or erythema of lower oesophageal sphincter
2	Lower oesophageal erosion without slough or exudate
3	Lower oesophageal erosion with slough or exudate
4	Lower oesophageal stricture
5	Barrett's oesophagitis

*Variation of the Savary–Miller classification.[8] FOG = flexible oesophagogastroscopy

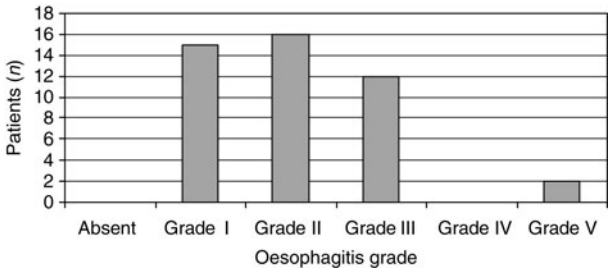

FIG. 1

Flexible oesophagogastroscopy findings.

astonishing rate of oesophagitis. However, we acknowledge that, in our oesophagitis grading system, our grade one was subjective and has been shown to have great inter-observer variability, and is thus of limited value.[10] Even after discounting this finding, we were still left with 30 patients out of 45 having evidence of oesophagitis.

- **There is growing evidence that reflux is a factor in the development of head and neck squamous cell carcinoma (SCC)**
- **This paper reports the results of flexible oesophagogastroscopy in patients with head and neck SCC**
- **Flexible oesophagogastroscopy for reflux diagnosis may be useful in the management of head and neck SCC patients**

Is reflux investigation in patients with upper aerodigestive tract SCC important? Qadeer *et al.* suggested that managing reflux in patients with upper aerodigestive tract SCC may reduce recurrence of this malignancy.[6] This concept is beginning to make more sense with the accumulation of evidence supporting the role of reflux as an independent risk factor for upper aerodigestive tract SCC.[1–5]

Furthermore, diagnosing and treating reflux in upper aerodigestive tract SCC patients may potentially reduce symptoms related to cancer treatment. One study showed that chemotherapy, and in particular cisplatin, may aggravate reflux.[7] It has even been suggested that patients who use proton pump inhibitors to reduce such reflux symptoms are less likely to delay chemotherapy or to have their treatment dose reduced.[11]

Once reflux is diagnosed in this patient group, correct treatment is important. The starting point for reflux treatment, according to the American Society for Gastrointestinal Endoscopy, is a trial of a proton pump inhibitor, to assess for effective management of symptoms. However, if other disease is present, or if reflux is severe, then endoscopy should be the investigation of choice. If endoscopy (i.e. flexible oesophagogastroscopy) is negative despite ongoing symptoms, the next step is a 24-hour pH study.[12]

In this study, we used the term reflux to encompass laryngopharyngeal reflux (LPR) and gastroesophageal reflux. This is obviously not without its flaws, as these two disease entities do have differences. Laryngopharyngeal reflux has different symptoms and is often identified as being more resistant to conventional reflux treatment.[13] The ideal method for diagnosing LPR is 24-hour intra-oesophageal pH monitoring.[13] Flexible oesophagogastroscopy will detect LPR (i.e. signs of oesophagitis); however, it is less sensitive.[14] (Thus, our 15 patients with grade one oesophagitis, discounted as not having definite oesophagitis, may still have had positive findings on 24-hour pH testing.) The disadvantage of 24-hour pH testing is that it is not widely accepted by patients – a refusal rate of 12 per cent has been quoted.[13] In addition, pH monitoring is still not widely accessible. The advantage of flexible oesophagogastroscopy is that it can be used to assess the upper aerodigestive tract in head and neck cancer as an investigative tool, as in our study.

Conclusion

Reflux appears to be common in patients with upper aerodigestive tract SCC. However, it is treatable, and such treatment may prevent recurrence of malignant disease and alleviate the symptoms of upper aerodigestive tract SCC chemotherapy. Flexible oesophagogastroscopy is a good tool in the investigation of reflux.

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