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British Journal of Oral and Maxillofacial Surgery xxx (2017) xxx–xxx
BRITISH Journal of Oral and Maxillofacial Surgery
www.bjoms.com

Management of cervicofacial infections: a survey of current practice in maxillofacial units in the UK

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Accepted 7 September 2017

Abstract

Cervicofacial infections are common emergency presentations to maxillofacial departments in the UK, there is no consensus about their management and, in particular, the role of corticosteroids is not clear. Our aim was to find out the current practice of UK maxillofacial surgeons in managing these infections using a multicentre questionnaire study. The questionnaire was designed, piloted, and revised before distribution, and questions were asked to assess preoperative, operative, and postoperative management. It was distributed to maxillofacial surgeons throughout the UK through the Maxillofacial Research Trainee Collaborative (MTReC) network, and at the 2016 British Association of Oral and Maxillofacial Surgeons (BAOMS) Junior Trainees Group conference. A total of 350 questionnaires were distributed to 17 maxillofacial units. Eighty-six questionnaires were distributed at the BAOMS Junior Trainee conference. An overall response rate of 92% (n = 324) was achieved. The results showed that there were important differences in reported practice between and within maxillofacial units in the UK in managing these infections. The antibiotic regimens and use of steroids varied widely. Twenty-three per cent of respondents had to wait over 24 hours for access to emergency theatres. However, these results provide no hard evidence for or against the use of corticosteroids in cervicofacial infections.

Keywords: Cervicofacial infection; odontogenic infection

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http://dx.doi.org/10.1016/j.bjoms.2017.09.002

Please cite this article in press as: McDonald C, et al. Management of cervicofacial infections: a survey of current practice in maxillofacial units in the UK. *Br J Oral Maxillofac Surg* (2017), http://dx.doi.org/10.1016/j.bjoms.2017.09.002

Introduction

Cervicofacial infections commonly present to maxillofacial teams, and can result in appreciable morbidity and complications that may include compromise of the airway.[1,2] The source of such infections is often odontogenic, but other sources such as salivary or tonsillar abscesses and skin infections may be encountered. Management is primarily surgical and involves removal of the source of infection and drainage of pus with exploration of any deep tissue spaces involved.

Medical management includes the use of antibiotics and corticosteroids. While antimicrobial agents deal with bacterial infection, corticosteroids can be used to limit the associated inflammatory response, the aims being to permit safe drainage and reduce the risk of compromising the airway.[3] Evidence about the management of these infections is sparse, and our collective experience suggests that there are variations in the prescription of both antimicrobials and high doses of steroids in the short term.

The Maxillofacial Trainee Research Collaborative (MTReC) is a national, trainee-led, research network. There are similar collaborations in other surgical specialties, and they have been successful in producing high-quality clinical research.[4,5] The collaboration consists of a core project team of trainees and consultants who design and organise projects, and a national network of regional trainee project leaders and local collaborators who organise and collect data. For random control trials run by other networks of surgical trainees, each site has a trainee and a consultant principal investigator. We aim to follow this model for MTReC.

With this questionnaire survey we aimed to gather national data on the current management of cervicofacial infections on which to base further studies, to ascertain best practice, and in particular to assess practice in the use of high doses of steroids.

Methods

A questionnaire comprising 20 items was compiled by a team of Oral and Maxillofacial trainees and consultants. Thirty questionnaires were piloted in three UK Maxillofacial Surgical Units. The questionnaires were refined after feedback had been taken into consideration. Questionnaires are included as Appendix A (Supplemental data, online only). A total of 353 questionnaires were distributed. The MTReC network distributed 267 to maxillofacial units across every region in the UK. Eighty-six were distributed to junior trainees at the British Association of Oral and Maxillofacial Surgeons' Trainees Conference in 2016. Data were entered into an Excel spreadsheet and analysed. Questions focused on the management of cervicofacial infections that had required admission to a maxillofacial unit. Grade of respondent, experience of treating these infections, and opinions about their treatment preoperatively, intraoperatively, and postoperatively, as well as subjective experiences of the care of affected patients were recorded. We also asked for opinions about the use of high doses of corticosteroids, together with perceived indications for and against their use.

Results

A total of 324 completed questionnaires were returned, giving an overall response rate of 92%. A total of 121 were from consultants, 120 from specialty trainees or sub-consultant grades, 61 from senior house officers (SHO) or equivalent grades, and 22 did not specify their grade (Fig. 1). Those of unknown grade were excluded from further analysis.

A protocol for the management of cervicofacial infections was reported to be in place by 34% of respondents, while 66% had none. Only 6% reported that their units included the use of high doses of corticosteroids in their protocol. Fifteen per cent reported that they routinely prescribed corticosteroids for cervicofacial infections. Results from SHO, specialty trainees, and consultant grades were similar, and there was little variation in practice between the grades.

When presented with a compromised airway together with a cervicofacial infection the proportions that prescribed steroids increased to 60% of consultants, 78% of specialty trainees, and 52% of SHOs. The results if the patient had

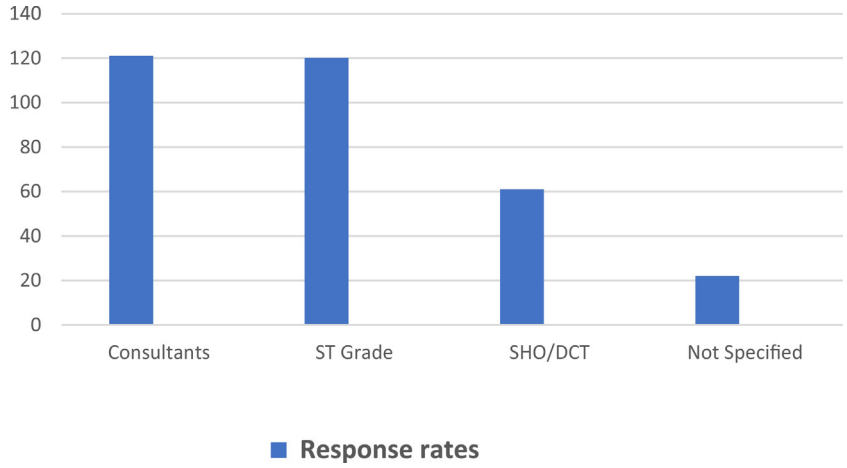

Fig. 1. Response rates to the survey.

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