

Summary of: Third molar-related morbidity in deployed Service personnel

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FULL PAPER DETAILS

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Online article number E6

Refereed Paper – Accepted 8 July 2010

DOI: 10.1038/sj.bdj.2010.724

[©]British Dental Journal 2010; 209: E6

Introduction The minimisation of disease and non-battle injury (DNBI) is essential for maintaining efficiency in a fighting force. Third molar-related morbidity is a common cause of DNBI. With extended lines of communication in current military deployments, travelling for dental care is often subject to significant danger. **Material and methods** Military dental officers in Afghanistan and Iraq recorded data on patients presenting with third molar pathology. Related previous history was obtained from the individual and from the military dental records. **Results** Three hundred and three individuals presented during the 23 month study period; 27.7% were unable to access care immediately, most commonly citing work pressure or lack of safe transport. Of those needing to travel, 70% were moved by helicopter. Pericoronitis was diagnosed in 84.4% of cases, 20.6% of these teeth being extracted; 53.5% of patients reported no prior symptoms, 22.7% with two or more episodes. There was documented evidence in military dental records of previous problems in 29.2% of cases. 11.3% had previously been listed for extraction of the presenting tooth. **Discussion** Dental treatment for troops in combat situations is fraught with difficulty. Special consideration must be given to the management of third molars in military personnel.

EDITOR'S SUMMARY

During this year's British Dental Conference and Exhibition, the BDA Museum hosted a short seminar entitled 'Teeth on parade', featuring film from the archives of the Imperial War Museum. The film included fascinating footage of Royal Army Dental Corps dentists working in a field dressing station near Normandy in July 1944, as well as a highly entertaining instructional film on oral hygiene for Army and RAF personnel. While the session was light-hearted and raised frequent laughs from the audience, the footage clearly highlighted the problems that dental disease used to cause for the military not long ago.

Thankfully the dental health of the general population has improved considerably since those films were made. However, as this paper shows, dental problems can still have an impact on service personnel in the field. Third molar problems are a common cause of

disease and non-battle injury, and dental treatment of troops in combat situations can be extremely difficult. The authors set out to investigate third molar morbidity and related complications in providing care in a theatre of conflict, and to look at protocols designed to minimise these risks.

One interesting finding of the study was the fact that over half of the patients presenting with third molar pathology during the study period reported having no prior symptoms. This suggests a problem, as far as the military are concerned, with current UK guidelines, which require two or more episodes of third molar symptoms before extraction is indicated. It is important to balance the relative risks of extraction of a third molar that may be asymptomatic at the time of surgery, with those of extraction in a war zone, where even transport to a dental facility may be life-threatening. The authors state that their goal is

to influence future guidance from the National Institute for Health and Clinical Excellence and the Scottish Intercollegiate Guidelines Network, so that military service is recognised as a possible indication for third molar surgery. The future studies that they list in their answers to our questions (right) will help to ensure there is a strengthened evidence base for use in any reviews of the guidelines in future.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 209 issue 4.

Rowena Milan
Managing Editor

DOI: 10.1038/sj.bdj.2010.747

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IN BRIEF

- Confirms that third molar related pathology is a cause of disease and non-battle injury among troops deployed in Afghanistan and Iraq.
- Despite the presence of dental surgeons in the theatre of conflict, access to urgent dental care is not always possible.
- Emphasises the need to actively question service personnel about third molar symptoms and to complete outstanding treatment before deployment.

COMMENT

Dental morbidity has been a militarily undesirable factor amongst armed forces personnel for many years. During the Boer War of 1899 to 1902 over 2,000 men were evacuated back to the UK on dental grounds, whilst almost 5,000 were unfit for duty in the field because of a lack of dentures.¹ Although the nature both of conflict and dental health have changed significantly since that time, nevertheless it is still essential that the highest possible proportion of serving personnel are available for combat duty. This paper describes, in very contemporary terms, the military, clinical and logistical challenges and considerations which face those concerned with delivering dental care to UK armed forces personnel in modern combat situations.

The study was conducted on military personnel serving in southern Afghanistan (October 2007 to August 2009) and in Iraq (January 2009 to August 2009). In those periods, 303 service personnel presented with symptoms related to third molars, with 84.4% of affected teeth diagnosed with pericoronitis. Almost half those teeth were associated with previous symptoms of a similar nature. This suggests the need to review whether more can be done to resolve symptomatic wisdom teeth prior to deployment into theatre.

However, given the inevitable unpredictability of many military deployments, the authors rightly question the appropriateness in a military context of the current NICE guidelines, which state that a first episode of pericoronitis,

unless particularly severe, should not be considered an indication for surgery. People working in other remote, arduous situations, not necessarily in a military context, might also not fit appropriately with current NICE guidance. Wisdom tooth guidelines from other authorities, for example the Scottish Intercollegiate Guidelines Network publication 43, explicitly recognise the need to take into account occupations or lifestyles which preclude ready access to dental care.

Pending any review of current NICE guidance, it is important for all practitioners to take into account such occupation and lifestyle factors before deciding whether, in specific individual cases, it is appropriate to pursue a care plan for wisdom tooth management outside of the NICE guidance, and which should be fully documented.

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1. Army Medical Services Museum. History of the Royal Army Dental Corps webpage. <http://www.ams-museum.org.uk/museum/radc-history/> (accessed 26 July 2010).

AUTHOR QUESTIONS AND ANSWERS**1. Why did you undertake this research?**

Dental morbidity is a cause of disease and non-battle injury in troops deployed in war zones. Previous research from the Gulf conflict of 2003 has shown that pericoronitis has a 'moderate to severe' impact on an individual's ability to carry out his or her operational duties in 41% of cases. We wanted to ascertain whether the preventive policies for addressing third molars pre-deployment are adequate and secondly to see if troops are able to obtain timely treatment in the theatre of conflict and examine the factors that affect this.

2. What would you like to do next in this area to follow on from this work?

The research team aim to determine the exact incidence of third molar related pathology in the operational environment and the natural history of third molars in military personnel. The end goal is to be able to risk stratify individuals with third molars to dictate treatment and to influence NICE/SIGN guidance. To achieve this the following projects are being put in place: cohort studies of individual units deploying to theatre, looking at prevalence of partially erupted third molars prior to deployment and actual rates of morbidity; a large scale, retrospective survey of the natural history of third molars, gleaned from military dental records; and a survey similar in design to the published data looking directly at toothache as a cause of morbidity, again combined with a review of dental notes. This is already in progress, the aim again being to identify exactly which teeth are the likely cause of significant morbidity.