

Available online at www.sciencedirect.com

ScienceDirect

British Journal of Oral and Maxillofacial Surgery xxx (2017) xxx–xxx

BRITISH
Journal of
Oral and
Maxillofacial
Surgerywww.bjoms.com

Incidence and treatment of complications in patients who had third molars or other teeth extracted

I. Miclotte*, J.O. Agbaje, Y. Spaey, P. Legrand, C. Politis

Department of Oral and Maxillofacial Surgery, University Hospitals Leuven, Kapucijnenvoer 33, Leuven 3000, Belgium

Accepted 4 February 2018

Abstract

The aim of this study was to compare the incidence of complications after extraction of third molars (M3) or other teeth, and to describe their management. We made a retrospective cohort study of patients having M3 or other teeth extracted, and recorded complications up to two years' follow-up. A total of 142 complications developed after 2355 procedures (6%) – 7% after extraction of M3 compared with 5% after extractions of other teeth ($p = 0.024$). The three most common complications were wound infection (2%), pain without apparent cause (<1%), and oroantral communication (<1%). Patients who had M3 extracted were at increased risk of complications compared with those who had other teeth extracted (Odds ratio (OR) 1.5, $p = 0.024$), particularly for infection (OR 5.9, $p < 0.001$) and hypoaesthesia (OR 8.4, $p = 0.027$). Half of all patients with a complication were treated with antibiotics orally. The incidence of postoperative bleeding was 0.6% as a result of suboptimal management of antithrombotic drugs in extractions of teeth other than M3. Finally, optimal treatment of the complications was compared with the available evidence. Prevention and treatment of these complications could reduce the incidence, particularly of bleeding. © 2018 Published by Elsevier Ltd on behalf of The British Association of Oral and Maxillofacial Surgeons.

Keywords: dental extraction; alveolar osteitis; oral bleeding; antithrombotics

Introduction

Dental extractions are common for patients of all ages. In some cases, the extraction of third molars (M3) or other teeth can be challenging because of technical difficulties such as an intimate relation between the roots of the teeth and the maxillary sinus or the nerve, medical conditions, or the use of antithrombotic drugs. The reported complication rates range from 3.5% to 14.8% for extraction of M3, but few recent data are available about extraction of other teeth.^{1–5} The optimal management of both types of extraction, such as the use of prophylactic antibiotics and the management of antithrombotic drugs, are still the subjects of clinical research.

The aim of the current study was to compare the incidence and management of intraoral postoperative complications after extractions of M3 and those of other teeth with the current available evidence, to identify possible areas of improvement.

Methods

We designed a retrospective cohort study that was approved by our hospital's ethics committee, and followed the principles of the declaration of Helsinki. We identified all patients who had had dental extractions in the outpatient clinic of the Department of Oral and Maxillofacial Surgery during a one-year period, and recorded their age, number of M3 or other teeth extracted, use of antithrombotic drugs, complications, and timing and management of complications

* Corresponding author. Tel.: +32 16 33 24 62.

E-mail address: isabel.miclotte@uzleuven.be (I. Miclotte).

<https://doi.org/10.1016/j.bjoms.2018.02.001>

0266-4356/© 2018 Published by Elsevier Ltd on behalf of The British Association of Oral and Maxillofacial Surgeons.

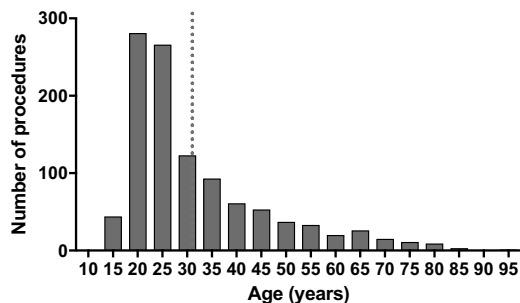


Fig. 1. Number of third molars extracted by age. The ages at which they were extracted were not normally distributed ($p=0.0001$), with most being done before the age of 35 years (mean age 32 years, dotted line).

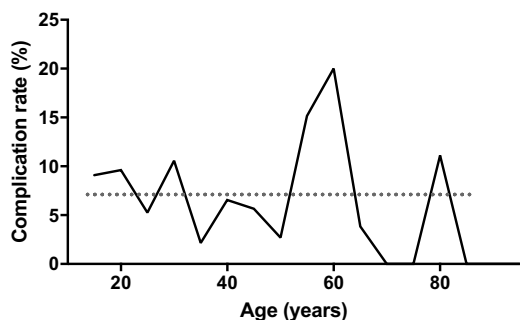


Fig. 2. Incidence of complications by age after extraction of M3. There is a peak in complications in patients over 50 years old (mean incidence 7.24%, dotted line).

(conservative, reintervention, local antibiotics, or systemic antibiotics). Complications were classified as operative when they happened during or immediately after the extraction, or postoperative when they became apparent one or more days after operation.

A surgical wound infection was defined as a complication when there were inflammatory changes such as pus, and fluctuation or swelling with associated pain.¹ Root fractures were defined as a complication if the remaining root was left in place. Impaired healing was defined as a persistent mucosal defect or dehiscence one week or more after extraction. Hypoaesthesia was defined as any reported numbness or decreased sensation in the region that was confirmed by pinprick sensitivity and two-point discrimination. A reintervention was defined as any procedure such as incision of an abscess, placement of a terramycin gauze, or removal of a bony sequestrum, with the exception of rinsing the wound with salt solution.

Complications were recorded up to two years' postoperatively. Patients were instructed to contact the department in case of any symptoms, pain, or questions postoperatively. Those who were thought to be at increased risk of complications were given a routine follow-up appointment.

Descriptive statistics were used to tabulate the numbers, percentages, and age distribution of the complications in the two groups. The incidence of complications by age was calculated by dividing the number of complications that developed in each age category (for example, 15–20 years, 20–25 years,

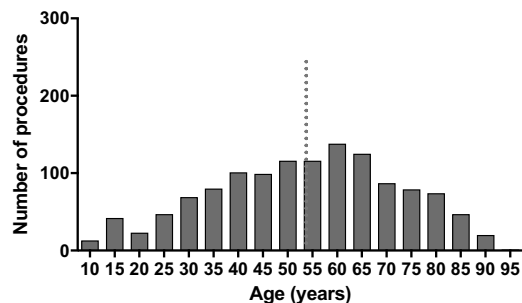


Fig. 3. Number of extractions of teeth other than third molars according to age. The ages followed a normal distribution ($p=0.09$) with a mean of 53 years (dotted line).

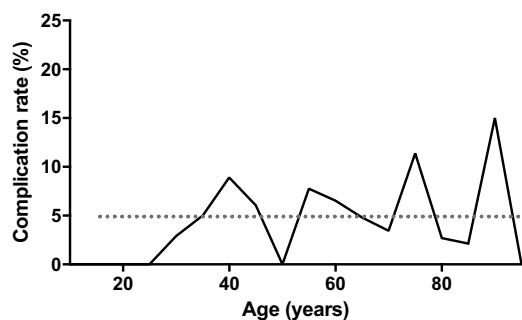


Fig. 4. Incidence of complications by age in extractions of teeth other than third molars. There is no clear difference in the complication rate throughout the age categories (mean incidence 5%, dotted line).

and so on) by the total number of extractions in that category. Incidences of complications were compared between groups by calculating the odds ratio and 95% CI, and we used Fisher's exact test to assess the significance of differences between groups with the aid of GraphPad Prism (version 6.0, GraphPad Software Inc, La Jolla, California, USA). Two-tailed probabilities of less than 0.05 were accepted as significant.

Results

During the one-year period 1/1/2013–31/12/2013, we did 2355 procedures for 2082 patients: 1076 extractions of M3 (mean (range) age 32 (15–95) years) and 1279 extractions of other teeth (mean (range) age 53 (7–99) years). There was a total of 142 complications (6%). Most of the extractions of M3 were in patients less than 38 years old (Fig. 1, 75th percentile 38 years, mean age 32 years). The incidence of complications/age category after extractions of M3 increased with increasing age (Fig. 2). The ages of patients who had other teeth extracted were normally distributed (Fig. 3) with no clear trend in the age at which complications developed (Fig. 4).

The incidence and types of complications are shown in Fig. 5, and the management, including the reintervention rate and use of antibiotics, in Table 1. More than half of the patients who developed a complication were treated with

Download English Version:

<https://daneshyari.com/en/article/8696723>

Download Persian Version:

<https://daneshyari.com/article/8696723>

[Daneshyari.com](https://daneshyari.com)