Effectiveness of 0.2% chlorhexidine gel and a eugenol-based paste on postoperative alveolar osteitis in patients having third molars extracted: a randomised controlled clinical trial

James Solomon Jesudasan 1, P U Abdul Wahab 2, M R Muthu Sekhar 3

Affiliations
PMID: 26188932 DOI: 10.1016/j.bjoms.2015.06.022

Abstract

The aim of this study was to compare the effect of application of 0.2% chlorhexidine gel, a eugenol-based paste, together with a control group on the postoperative incidence of alveolar osteitis in patients having third molars extracted. A total of 270 patients who had this procedure at the Dept of Oral and Maxillofacial Surgery, Saveetha Dental College and who met the inclusion criteria were
enrolled in the study and divided into 3 groups: the first had a 0.2% chlorhexidine-based gel applied to the alveolar socket once after extraction; the second had a eugenol-based paste applied to the alveolar socket once after extraction; and the third group acted as controls, with no treatment. The incidence of alveolar osteitis was recorded for 7 days. We also recorded postoperative pain, inflammation, infection, and wound healing. Nine of the control group (10%) and 2 (2%) of the chlorhexidine group developed alveolar osteitis on the seventh postoperative day. The overall incidence (11/270) was 4%, which is less than reported elsewhere. The distribution of alveolar osteitis among the 3 groups was significant (p=0.002), with the eugenol group having no cases. The chlorhexidine group showed less incidence of alveolar osteitis than other reported studies and also less pain, inflammation, infection, and better wound healing than the control group. We conclude that eugenol was the better of the 2 interventions.

**Keywords:** Alveolar osteitis; Dry socket; Intra-alveolar medication; Prevention of alveolar osteitis.

Copyright © 2015 The British Association of Oral and Maxillofacial Surgeons. Published by Elsevier Ltd. All rights reserved.