Discussion

Mandibular Fracture After Third Molar Removal

Morton H. Goldberg, DMD, MD
Clinical Professor, Oral and Maxillofacial Surgery, University of Connecticut; and Director Emeritus, Department of Dentistry, Hartford Hospital, West Hartford, Connecticut; e-mail: phymorgo@aol.com

The somewhat neglected problem of late mandibular fracture after third molar removal is addressed in this brief study, which showed that, of 339 fractures treated in the authors' institution, 6 (0.018%) were the result of impaction surgery. This adds a different statistical dimension to contrast with another recent study, which discovered a late fracture incidence of 0.0046% in 611,000 mandibular third molar surgeries in a retrospective review of 84 surgeons in private practice in Connecticut.1

Krimmel and Reinert report that 3 of their 6 patients showed the presence of preoperative cysts, whereas 2 of 28 were recorded by Perry and Goldberg,1 who also noted a 64% incidence of preoperative infection. This very important factor, infection, was unfortunately not recorded by Krimmel and Reinert, but has been discussed by Helfrick2 and Iizuka et al.3 It is reasonable to assume that deep or chronic infection will decalcify or destroy bone, thereby contributing to the likelihood of fracture.

The authors correctly recognize that whereas third molar surgery most commonly is performed in young female patients, postsurgical fractures occur most frequently in males averaging 40 years of age.1,4,5 However, they speculate that preexisting osteoporosis may be a causative factor in these fractures, without offering any substantiation that demineralization is significant in men who are in their fourth or early fifth decades of life.

All of the patients in this study had a full dentition, which permitted maximal occlusal force during the healing period. However, there is no mention of dietary indiscretions, or noncompliance with food other than a soft diet, during the 8 to 21 days postoperatively, when bone strength was at its nadir. In Connecticut, bagels, nuts, steak, and frozen candy bars have been implicated, but dietary habits vary between cultures and continents, even between geographic areas of the United States.

This study supports the earlier data, which indicated that the complication rate after third molar surgery increases with age.6 The greatest risk for late fracture is the middle-aged man who is not restricted to a postoperative soft diet (and the presence of preoperative infection!). This cohort of patients should be identified and educated about their risks, as well as what foods constitute a soft diet. This makes sense, both medically and medicolegally.

References


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