

[J Oral Maxillofac Surg.](#) 2004 Apr;62(4):519-20.

Etiology of dry socket: additional factors.

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Comment on

[A clinical evaluation of dry socket in a Nigerian teaching hospital.](#) [J Oral Maxillofac Surg. 2003]

I read with interest the article on dry socket (alveolar osteitis) in a recent issue of the *Journal* by Oginni et al (J Oral Maxillofac Surg 61:871-876, 2003).¹ Despite the fact that dry socket is a consistent problem in our practice in Africa, few reports can be found in the international literature on the incidence of this common complication of dental extractions in the African population. According to the authors, most of the extractions (72%) that resulted in dry socket were carried out by less-experienced surgeons (house officers and undergraduate students). Less-experienced surgeons have been reported to cause more trauma during extractions than experienced surgeons.² This is probably due to excessive trauma and intraoperative complications that are inflicted by the less experienced surgeons. Excessive trauma has been known to delay wound healing.³ Birn³ proposed that trauma during extraction damages the alveolar bone cells, causing inflammation of the alveolar bone marrow and the subsequent release of direct tissue activators into the alveolus, where they may precipitate fibrinolytic activity, thus playing a major role in the pathogenesis of alveolar osteitis. One important factor that was not evaluated in the report by Oginni et al,¹ probably due to the nature of their study (retrospective), was the intraoperative complications (tooth fracture, alveolar bone fracture) during the extractions. Birn³ suggested that roots or bone fragments (remnants) remaining in the extraction wound could possibly cause alveolar osteitis. In his recent article, Blum⁴ was also of the opinion that despite a lack of scientific evidence for these remnants to be the causative factor for alveolar osteitis, it seems logical that fragments and debris remnants could disrupt wound healing, and thereby possibly contribute to the development of alveolar osteitis. In a recent prospective observational study at the Oral and Maxillofacial Surgery Department of the Lagos University Teaching Hospital, Nigeria (unpublished data), a high incidence of 8.6% of dry socket was found in a group of 269 patients with 301 extractions. Intraoperative complications (tooth fracture, alveolar bone fracture) were found to have a statistically significant influence on the development of dry socket in the study ($P < .01$). The length of surgery was also found to have a statistically significant influence on the development of dry socket ($P < .01$). No teeth that were extracted for periodontal disease were associated with any intraoperative complications and none developed dry socket. Although many etiologic and precipitating factors for dry sockets have been suggested in the literature, avoidance of excessive trauma during extractions as well as meticulous surgical technique to minimize intraoperative complications will go a long way in reducing the incidence of this common but not yet fully understood⁴ clinical condition referred to as "dry socket."

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