

## *Editorial*

### **Current pattern of antibiotics prescription to prevent surgical site infection after lower third molar removal**

Literature contains arguments for and against the use of routine antibiotic prophylaxis in third molar surgery involving bone removal to prevent surgical site infection, and the main source of controversy is the lack of reliable and sensitive clinical criteria for identifying postoperative infection in these patients<sup>2</sup>. Peterson's criterion for antibiotic use is that the surgical procedure should have a significant risk of infection<sup>4</sup>. Dentoalveolar surgery has a less than 5% infection rate<sup>3</sup>.

Undoubtedly, amoxicillin, like every other antibiotic, has no direct influence on the control of pain, swelling or postoperative trismus, but it seems that preventing postoperative infection may have an indirect influence on these parameters. Operative field infection in this area may lead to transmission of the infection to the submandibular space leading to the inflammatory infiltration of an attachment of the masseter and the medial pterygoid, which leads to trismus. Similarly, perimandibular inflammatory infiltration associated with bacterial infection during surgery may also contribute to the appearance of swelling.

Reports have documented that specific postoperative oral prophylactic treatment for the removal of lower third molars does not contribute to better wound healing, less pain or increased mouth opening<sup>1-3,5,6</sup>. Lawler, et al.<sup>3</sup> (2005) stated that "the author's institution ceased using antibiotic prophylaxis for routine third molar removal approximately a decade ago. There has been no change in the infection rate with or without prophylactic antibiotics."

The professional should always balance the low risk of wound infection against the adverse risk from the antibiotic. Some factors which need to be considered are the tissue trauma, the extent of host compromise, difficult bone impactions with previous history of recurrent infections and

other medical comorbidities, for example. In the few cases where antibiotic prophylaxis is considered, a single high preoperative dose should be given (amoxicillin 2 g or clindamycin 600 mg for patients allergic to penicillin, 1 hour prior to the procedure)<sup>3</sup>.

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