

# Attenuation of C-Reactive Protein Increases After Exodontia by Tramadol and Ibuprofen

Eman A. El-Sharrawy, MBBCh, MSc, MD,\* Ibrahim E. El-Hakim, BDS, MDS, PhD,† and Elham Sameeh, BDS, MDS†

\*Department of Oral and Maxillofacial Surgery, Tanta University, Cairo, Egypt, and †Department of Oral and Maxillofacial Surgery, Ain Shams University, Cairo, Egypt

The anti-inflammatory effects of ibuprofen and tramadol were investigated by measuring C-reactive protein concentrations after removal of an impacted lower third molar. Forty-five American Society of Anesthesiologists Class I patients were randomly categorized into 3 equal groups according to postoperative analgesic medication. The first group received tramadol (100 mg every 8 hours), the second group received ibuprofen (400 mg every 8 hours), and the last group received half doses of both drugs in combination (50 mg tramadol every 8 hours and 200 mg ibuprofen every 8 hours). C-reactive protein was measured before surgery to exclude the presence of any preexisting inflammatory condition that might interfere with the study. C-reactive protein was also determined immediately after surgery and 72 hours postoperatively. At 72 hours, C-reactive protein had increased over postsurgery baseline by 123% in the tramadol group ( $P < .001$ ), 84% in the ibuprofen group ( $P < .001$ ), and only 37% in the combined analgesic group ( $P = .078$ ). These results suggest that tramadol may produce supra-additive anti-inflammatory effects with ibuprofen after third-molar extractions.

**Key Words:** C-reactive protein; Ibuprofen; Tramadol; Dentistry; Oral surgery.

---