Fibrin sealant reduces pain after tonsillectomy: Prospective randomized study.

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Abstract:

Objectives: Postsurgical pain in adults following tonsillectomy with fibrin sealant or electrocoagulation was assessed by surface electromyography (sEMG), a dysphagia severity rating scale (DSRS), and a visual analog scale (VAS) pain score. Methods: For group 1 (n = 40), hemostasis was achieved by fibrin sealant spraying to the tonsillar fossae. For group 2 (n = 40), hemostasis was achieved by bipolar or needle point electrocautery. The timing of single swallowing and continuous drinking and the mean electrical activity of the masseter, infrahyoid, and submental-submandibular muscles were compared with a normative database during 30 days and with DSRS and VAS scores. Results: Electrical activity of the masseter and infrahyoid muscles was significantly higher in both groups in comparison with the normative database ($p < .05$ to $p < .005$), whereas timing was less affected. The combined sEMG, DSRS, and VAS assessment showed that tonsillectomy ended with sealant causes less pain than electrocoagulation ($p < .05$). The DSRS score data were in strong positive correlation with the sEMG records, whereas the VAS pain score was less informative. Conclusions: The combined sEMG and pain score data indicate that the electrocautery hemostatic technique is more painful and traumatic than the sealant technique. Surface electromyography of swallowing is a simple, reliable evaluation method for postsurgical odynophagia complaints and might be used as an objective tool for pain assessment. © 2006 Annals Publishing Company. All rights reserved.