

The use of guided tissue regeneration principles in endodontic surgery

[A. Gaudin, J. Adou, D. Marion.](#)

UFR d'Odontologie, 1 place Alexis Ricordeau 44042 Nantes cedex1.

INTRODUCTION: Periradicular surgery has become an established treatment option in endodontic surgery. The major objective is to obtain periradicular healing. The application of guided tissue regeneration (GTR) in periapical surgery has seen an increase in recent years based on favourable outcomes reported in periodontal applications. Through a clinical case (Fig 1) and a review of the literature, this work presents the use of GTR as an adjunct for healing in endodontic surgery.



Fig 1: Use of a bone replacement graft for a periodontic-endodontic lesion.

METHODS: Review and case series with at least 12 months' follow-up were researched. Data sources included electronic databases and hand-searched journals from 1996 to 2006. The evaluation was made on clinical, radiographic and histological parameters.

DISCUSSION & CONCLUSIONS: Clinical and radiographic conditions improved during the study period. Using GTR in endodontic surgery leads to an increase in the amount of bone, periodontal ligament and cementum. The main applications are periodontic-endodontic lesions. A classification of these lesions is required.

This conclusion must be tempered by the fact that there are only a small number of studies. Controlled clinical trials investigating this topic are difficult to design in humans

REFERENCES: SK. Britain, T Von Arx, RK. Schenk, D. Buser, P. Nummikoski and DL. Cochran (2005) The use of guided tissue regeneration in endodontic surgery for induced chronic Periodontic-endodontic lesions: a clinical, radiographic, and histologic evaluation. *J Periodontol* **76**:450-460.
 JC. Douthitt, JL. Gutmann, DE. Witherspoon (2001) Histologic assessment of healing after the use of a bioresorbable membrane in the management of buccal bone loss concomitant with periradicular surgery. *J Endod* **21**:404-410.