

Journal Oracle

The extra-cranial use of Onyx[®], in the management of a traumatic arterio-venous malformation

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A: This photograph shows a vascular malformation of the right upper lip.

B: This photograph shows the postoperative results at 2 months.

A 20-year-old female was subjected to a brutal attack in which she suffered trauma to the upper lip from the butt of a

rifle. She subsequently developed a high-flow arterio-venous malformation (AVM), which was radiographically shown to be supplied by the superior labial branch of the facial artery. It was decided to manage the AVM using a combined radiological and surgical approach. Pre-operative embolization was undertaken using an ethylene-vinyl alcohol copolymer (Onyx; ev3, Irvine, CA), which is more commonly used for embolization of intracranial aneurysms. Six months later the upper lip, now quite firm and non-pulsatile, was surgically reconstructed.

Safety of coronectomy versus excision of wisdom teeth: a randomized controlled trial. Yiu Yan Leung, Lim K. Cheung. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology* 2009;108(6): 821–7

This group from Hong Kong conducted a randomized controlled trial to compare the surgical complications and IDN deficit of coronectomy and total removal of wisdom teeth. Patients with specific radiographic signs of close proximity of wisdom teeth roots to the IDN were randomized. A total of 231 patients underwent surgery for 349 lower wisdom teeth (171 coronectomies, 178 controls); 16 coronectomies failed (9.3%) and were removed in total. Nine patients in the control group presented with IDN deficit, compared with 1 in coronectomy group ($P=0.023$). Pain and dry socket incidence was significantly lower in the coronectomy group, and there were no statistical differences in infection rate between the 2 groups. Reoperation of one coronectomy case was performed owing to persistent root exposure. They concluded there are fewer complications in terms of IDN deficit, pain, and dry socket after coronectomy, but the infection rate is similar to that of total excision.

Buprenorphine with bupivacaine for intraoral nerve blocks to provide postoperative analgesia in outpatients after minor oral surgery. Modi M, Rastogi S, Kumar A. *Journal of Oral and Maxillofacial Surgery* 2009;67(12):2571–6

The demonstration that opioid receptors exist in the peripheral nervous system offers the possibility of providing postoperative analgesia. Recently many investigators have compared the efficacy of various opioids added to the local anesthetic near the brachial plexus; and it appears that buprenorphine provides the longest duration of analgesia. None of these studies was performed in patients undergoing minor oral surgery. This study was undertaken to ascertain the efficacy of buprenorphine in providing prolonged post-oral surgery analgesia when added to 0.5% bupivacaine with epinephrine 1:200,000.

Fifty adult patients scheduled for minor oral surgery were enrolled in the study. Patients were assigned randomly to 1 of 2 equal groups based on the agents used for the blocks. Patients in group I received local anesthetic alone, and those in group II received the same local anesthetic plus buprenorphine. The study was kept double-blind. The data were reported as means \pm standard errors of the mean, and differences between groups were determined using t test. The mean duration of postoperative pain relief after injection of the local anesthetic alone was 8.34 ± 0.11 h compared with 28.18 ± 1.02 h after buprenorphine was added, a difference that was statistically (and clinically) significant ($P < .001$). The addition of buprenorphine to the local anesthetic used for intraoral nerve blocks in the present study provided a 3-fold increase in the duration of postoperative analgesia, with complete analgesia persisting 30 h beyond the duration provided by the local anesthetic alone in 75% of patients. This

practice can be of particular benefit to patients undergoing minor oral surgery by providing prolonged analgesia after discharge from the hospital.

The potential of the horizontal ramus of the mandible as a donor site for block and particulate grafts in pre-implant surgery. Soehardi A, Meijer GJ, Strooband VFMH, de Koing M, Stoeltinga PJW. *International Journal of Oral and Maxillofacial Surgery* 2009;38(11):1173–8

This group presents the results on 32 consecutive patients, who underwent bone grafting prior to implant surgery. The grafts were taken from the horizontal part of the mandible, including the full height of the buccal cortico-cancellous plate and were used to reconstruct alveolar defects or to augment sinus floors. After a post graft wait of 3–5 months, 99 implants were inserted in 43 onlay grafts and in 17 sinus floor augmentations. The follow-up ranged from 2 to 6 years post implant insertion. Parameters examined included: healing of donor site and bone grafts, implant survival, peri-implant condition, donor site morbidity and patient satisfaction. This study indicates that with one full height ramus graft, alveolar defects comprising a bicuspid–molar area, can be augmented. The grafted volume is also sufficient to augment one sinus floor. The implant survival rate (99%) compares well with studies using iliac crest or skull bone. Postoperative complaints were minimal, resulting in extremely high patient satisfaction (97%).