



# Huntington Village Implant & Oral Surgeons

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Don't Miss  
Out on our  
Next Seminar

**Thursday**

**May  
7th, 2015**

3 CE Credits

“Laser  
Periodontal  
Therapy”

Presenter:  
Henry Sachs  
DDS

Registration  
Dinner  
5:30 pm

Lecture  
6:00 - 9:00 pm

Dolan Family  
Health Center

284 Pulaski  
Road,  
Greenlawn,  
NY

This course is  
sponsored by  
the Suffolk  
County Dental  
Society, an  
ADA-CERP  
recognized  
provider of  
Cont. Ed. (CE)  
approved by  
the New York  
State Dental  
Association  
and a design-  
ated PACE  
Program Pro-  
vider for the  
Academy of  
General  
Dentistry.

### Oral Surgery: Anticoagulants and Dentoalveolar Surgery

Broekema FI, van Minnen B, Jansma J, et al: Risk of bleeding after dentoalveolar surgery in patients taking anticoagulants. Br J Oral Maxillofac Surg 52:e15-e19, 2014

**Clinical Significance:** Dentoalveolar surgery appears to be safe in patients taking anticoagulants if the ACTA guidelines are followed. The dental practitioner should ensure the patient's INR is checked within 24 to 72 hours of surgery and falls within the indicated range. Surgery should be done as atraumatically as possible, and telephone follow-up is advised to ensure the patient is not having serious bleeding after the procedure.

**Background:** Oral anticoagulation therapy successfully prevents many thromboembolic events. Thrombocyte aggregation inhibitors such as acetylsalicylic acid and clopidogrel and vitamin K antagonists such as warfarin, acenocoumarol, and fenprocoumon are the most commonly prescribed agents. With an aging population, more patients are keeping their teeth longer and require dentoalveolar surgery, but they are also taking anticoagulants, which pose an increased risk for postoperative bleeding. The practice of discontinuing anticoagulants before dentoalveolar surgery has been reviewed with the Academic Centre for Dentistry Amsterdam (ACTA) developing guidelines based on research into the risks and benefits involved. These guidelines distinguish between thrombocyte aggregation inhibitors, which can be continued during dentoalveolar surgery, and vitamin K antagonists, which are continued only when patients meet specific conditions. These conditions include an international normalized ration (INR) measurement taken 24 to 72 hours preoperatively to be 3.5 or less; the surgery should involve no more than three extractions, removal of wisdom teeth, periodontal treatment, apicoectomies, incision of an abscess, or placement of a maximum of three implants. Surgical procedures should be as atraumatic as possible, the wound should be sutured after extraction, and the patient should be given sufficient instructions concerning what to do. Patients should rinse their mouths with tranexamic acid 5% for 5 days after surgery. These ACTA guidelines were evaluated to determine if these procedures sufficiently address postoperative bleeding. In addition, patients taking anticoagulants were compared to those not taking them to determine the incidence of bleeding.

**Methods:** A prospective study of 206 patients (mean age 59 years; range 21 to 86 years) was undertaken, with half of the patients taking anticoagulants and half not taking them. Thrombocyte aggregation inhibitors were prescribed for 71 of the group taking anticoagulants; the others were receiving vitamin K antagonists. In all cases the guidelines prepared by ACTA were followed. Procedures included surgical extraction with the surgeon incising the gingival before extraction, nonsurgical extraction, apicoectomy, and implant placement. Postoperatively patients received standard care; those taking vitamin K antagonists were instructed to use tranexamic acid mouthwash after surgery. Telephone follow-up was used to determine if the patients experienced postoperative bleeding at home.

**Results:** The most common procedures performed were surgical and non surgical extractions. All episodes of bleeding occurred in patients having these procedures. Patients taking anticoagulants and having surgical extractions were the most likely to develop bleeding, but the incidence did not differ significantly from that of patients who had nonsurgical extractions while taking anticoagulants. One episode of postoperative bleeding occurred among the patients not taking anticoagulants who had surgical extractions and one among those who had nonsurgical extractions without taking anticoagulants. The differences between groups were not statistically significant.

No severe postoperative bleeding occurred. Patients not taking anticoagulants had fewer mild bleeding episodes than those who did take anticoagulants, but the difference was not statistically significant. Telephone interviews done 1 week after surgery revealed 7% of the patients taking anticoagulants had a mild postoperative bleeding episode. All patients were able to control the bleeding by using compression with gauze. The highest percentage of mild postoperative bleeding episodes occurred in patients who took vitamin K antagonists and had a mean INR of 2.6 (range 1.9 to 3.4). These patients had a higher incidence of mild postoperative bleeding than patients taking thrombocyte aggregation inhibitors or those not taking any anticoagulants, but the difference was not significant. INR was not correlated with hemorrhage. Patients who took thrombocyte aggregation inhibitors had an incidence of bleeding not significantly greater than patients in the control group.

**Discussion:** Patients at high risk for experiencing thromboembolic events, such as those who have mechanical heart valve prostheses and those with recurrent or recent events of this sort, must consider the continuation of anticoagulant medication as an important part of their life. The possible consequences of bleeding after dentoalveolar surgery must be weighed against those related to a thromboembolic event. None of the patients studied developed severe postoperative bleeding, even within the first week postoperatively. In addition, the incidence of postoperative bleeding was similar whether or not the patient was taking anticoagulants and whether the anticoagulant was a vitamin K antagonist or a thrombocyte aggregation inhibitor.