

The use of oxidized cellulose-based haemostat in dentoalveolar surgery in combination with augmentation techniques.

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The use of oxidized cellulose-based haemostat in dentoalveolar surgery is well founded. They can be advantageously applied wherever it is necessary to stop the bleeding, and to significantly enhance the blood clot formation thus improving the wound healing process. In this case, the author describes his experience with the use of a nonwoven version of an absorbable haemostatic material in the form of cotton wool, with reduced weight and very high flexibility (available on the market under the trademark OKCEL® F) in combination with augmentation techniques.

My dental practice is specific in focusing on dentoalveolar surgery in the oral cavity. Previously I have used preparations based on oxidized non-regenerated cellulose for haemostasis and to increase comfort for the patient in the subsequent stages of wound healing. Recently, I decided to use the material OKCEL® F, an oxidized cellulose in the form of cotton wool, in combination with tricalcium phosphate types of augmentation preparation. These, along with hydroxyapatite and bovine bone assures the patient of physiological healing of the socket with minimal residual bone tissue resorption (so-called "socket preservation" method) to preserve the bone socket immediately after extraction. There are several possible approaches, but it has generally been concluded that bone loss around a socket cannot be avoided without use of augmentation techniques. There are many preparations on the market, so attention should be paid to the financial circumstances of the patient as different modifications to the treatment plan at various workplaces present differing economic possibilities.

I started to use in my treatment procedures a technique whereby, after application of an augmentation agent (mono-component or mixed) I would cover the wound with a resorbable haemostatic material based on non-regenerated oxycellulose. For this purpose, I use the product OKCEL® F.

The treatment protocol is as follows:

1. As gently as possible extract the tooth from the bone socket.
2. Clean the wound of granulation tissues and adjust the gingival margins for better connection of the wound edges.
3. Prepare an augmentate by mixing with patient's venous blood or PGFR, and its' careful application into the wound without applying pressure so as not to distort the structure of the inserted augmentate.
4. Covering and partial stabilization of the augmentate is achieved by inserting the OKCEL® F haemostatic material and subsequent suturing of the wound.

This protocol results in a more pronounced formation of the blood clot that stabilizes the augmentate so that we can maintain it in situ as much as possible. In such cases, the patient is advised not to rinse his/her mouth – only passive application of chlorhexidine preparations (with concentration of 0.2 - 0.5 % in gel or paste form) are possible – and to use analgesics on the day of surgery. Antibiotic control is not needed.

The interim results clearly demonstrate that this technique is sufficient for augmentate stabilization in situ; in addition, the localised anti-inflammatory effect during the decomposition of oxycellulose compared to simple tooth extraction without further treatment is also evident. Overall, a faster and more effective healing process is provided which ensures preservation of the socket for possible replacement of the lost tooth by an implant.

Photo documentation:





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