The Importance of the Blood-Derived Growth Factors in Oral Surgery

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The surgical procedures evolve at all times, however dental surgeries, in especially dental removals and soft tissue management, these techniques may variate according to the surgeon, but the basic principles are always the same.

After the introduction of blood-derived growth factors in dentistry has modified the protocol of many surgeons, because of this by-product of the blood, assists in two essential steps: trans-operative and postoperative.

Because it is a fibrin mesh obtained through centrifugation of the peripheral blood, it is an optimized form of the clot, where mononuclear and polymorphonuclear cells, which are leukocytes, are present, in addition to the presence of platelets. These blood components are trapped in this mesh and are responsible for the production of different cytokines. Among them, the release of the growth factors, which aid in cell proliferation, maintenance, and differentiation.[1-4]

Among the leading growth factors, it is possible to highlight the platelet-derived growth factor (PDGF), Endothelial Vascular growth factor (VEGF), Insulin-like growth factor (IGF), fibroblast growth factor (FGF) and Transforming growth factor (TGFβ).[1,3]

During the operative procedure, this fibrin mesh (clot) assists in hemostasis, because its density is sufficient to be positioned or pressed on the operated area. Another important issue is that in this clot, it presents with the entire coagulation cascade ready, which will optimize the hemostasis of the region.[4]

After implantation of this material in the surgical site, early in the postoperative period, it is possible to observe an optimized healing, especially of the soft tissues. In cases of exodontia, it is possible to find the reduction of edema, pain, and alveolitis.[4,5]

Therefore, the main proposal, which I present in this editorial, is the modification of the protocol for exodontia and soft tissue surgery in the oral cavity.

Where the whole procedure should be optimized by the presence of the blood-derived growth factors, and its possible got this of a simple collection of blood before the surgical procedure. With this it is possible to optimize the entire protocol, improving the quality of the surgical method for the surgeon and especially for the patient.

REFERENCES


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