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CHEEKS PLASTIC WITH STBA AND CALCIUM PHOSPHATE

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The aging process leads to reduction of facial soft tissue volumes that make up the slip at the bottom of the same (ptosis) by the action of gravity.

The regeneration process, both the skin and of the adipose tissue, help restore the soft tissue in a volume useful to bring them home. But sometimes, this posting is not sufficient and, therefore, it requires further action that includes an increase in the volume of the zygomatic bone with the aim of increasing the support of soft tissue and improve the aesthetics of the face.

Natural fillers and/or synthetic or silicone implants have been proposed for this intervention. The first show, today, more and more concern for the possible side effects that follow the introduction of homologous or heterologous substances in our tissues. Jobs at the Barcelona University showed that the recombinant hyaluronic acid, and synthetic fillers have an incidence of immediate or long-term reactions that currently exceeds 12%, which must be ever increasing. These adverse reactions are even more important in the case of susceptible individuals at genetic level so that, to highlight these subjects, has been put in place a basic screening test.

Recently, the work of Regenerative Medicine for the improvement of the face made it possible to formulate a set protocol Medical Face Lifting, which allows for an aesthetic improvement of the face through the regeneration of the epidermis, the dermis, hypodermis and bone. Bone regeneration using an emulsion gel formed by plasma proteins and calcium triphosphate.

Since 2003, Prof. Victor J. Garcia has started to use the components of the patient's autologous blood (platelets, fibrin and proteins) for the regeneration of tissues of the face. As part of this study has defined the term Biologic Autologous Tissue Support the patient's plasma proteins coagulated by heat.

The plasma proteins are fibrous and globular macromolecules present in human plasma in a colloidal aqueous solution and subjected to a temperature above 37 ° C denature gel and form

a solid consistency. The solid gel resulting from this treatment can, as we shall see, be used as a carrier for other substances, and be injected into the tissues. To this Prof. Victor J. Garcia has defined the term Biologic Autologous Tissue Support or STBA.

Biocompatible materials, such as calcium triphosphate or hydroxyapatite, are used as a filler to replace amputated bone or as a coating to stimulate bone growth in implants. The hydroxyapatite $\text{Ca}_5(\text{PO}_4)_3(\text{OH})$, is the main mineral constituent of bone. In fact, 99% of the calcium present in the human body is stored in bone as hydroxyapatite.

The hydroxyapatite appears to be an osteoconductive material that facilitates the processes of osteogenesis when implanted in bone cavities or in contact with the periosteum.

The mechanism of bone formation involves the development of a new bone matrix surrounding inorganic substance. It seems that the osteoconduction hydroxyapatite granules is mediated by the penetration of capillaries into the pores of the system followed in 4 weeks the formation of blocks of spongy bone. It is conceivable that, in addition to being osteoconductive, hydroxyapatite is also osteoinductive. This is suggested not only by modulation of fibroblasts into osteoblasts, which occurs in the spaces intertrabecolari and is signaled by the appearance of alkaline phosphatase activity, but also by the observation that the process of bone formation can be caused by hydroxyapatite granules implanted in soft tissues .

So we can say that the plant calcium triphosphate or hydroxyapatite is a reliable procedure with virtually no risk and is suitable to promote the formation of a long-term bone that allows the repair and reconstruction of skeletal defects of any shape and size.

Based on these premises the use of support with Autologous Tissue Biologic Support Triphosphate Calcium for bone zygomatic bone formation, stands as one of the regenerative techniques on how to improve the aesthetics of the face, secure, easy to implement and cost.

The treatment involves:

- Removal of the patient's blood
- Separation of plasma proteins
- Suspension of the Medical Device containing the triphosphate of calcium in plasma protein
- Gelation of plasma proteins with heat to form the support with Biologic Autologous Tissue Support and Triphosphate Calcium
- Plant product in the periosteum, in the districts zygomatic,
- Checking and re-treatment after 30-40 days.

The blood test is performed at the venous tubes containing anticoagulant. It shall, thereafter, at a high speed centrifugation to separate the plasma from the cells.

Two milliliters of plasma of the patient are entered in the Medical Device vials containing 500 milligrams of calcium triphosphate and stirred thoroughly with a Vortex.

The fine particle size of calcium triphosphate (30 micron) is used to form a homogeneous suspension which has a low tendency to settle (small grains in the middle gel) and then being stabilized through the coagulation of proteins.

The emulsion, made up of 2 milliliters of plasma and 500 milligrams of calcium triphosphate, is sucked into the syringe and the same is placed in a boiling water bath to denature and coagulate protein. It forms a white paste, homogeneous, consisting of STBA and Calcium Triphosphate.

You draw lines on the face of the patient to mark the zygomatic area. The first line goes from the bottom of the nose to the upper edge of the tragus and the second eye from the outer edge to outer edge of the mouth. The outer triangle is the area zygomatic bone.

It comes with 21 G needle at the point of intersection of two lines, right angles. Reached the periosteum, the needle tilts external parallel move in the excess bone. Added all the needle, the product begins to infiltrate in a retrograde sense. Repeat moving radially in the outer triangle.

Finished product distribution (one milliliter per side) massaging the area well to allow homogenization of the material on the periosteum.

Within 30-40 days we have a slight increase in bone volume and dl, if not sufficient, you can repeat the treatment.

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