COMPARATIVE ANALYSIS OF METHODS OF INCREASING KERATINIZED ATTACHED GINGIVA AROUND IMPLANTS

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Key words: *gingiva, epithelization, dentistry, implantation*

Background and Aim. The lack of keratinized attached gingiva around the implans is a reason of mobility soft tissue, the pocket forming what may cause implant failure. The aim of study is improving the efficiency of surgical treatment patients with insufficient width of keratinized attached gingiva in the implant.

Material and Methods. Our study included 58 patients, aged from 18 to 75 years, with insufficient width of keratinized attached gingiva in the implant, who had dental implantation surgery. Patients were divided into 3 groups by random sampling: apically positioned flap (group 1), free gingival graft (FGG) transplantation (group 2), collagen matrix (CM) transplantation (group 3). The number of patients by gender and age, was comparable in all groups.

Results and Discussion. In postoperative period the increase of keratinized attached gingiva, the severity of pain, edema and hyperemia, the wound epithelisation were observed. The increase of keratinized attached gingiva was observed in patients from 1 group (2.0±0.3 mm), 2 group (4.8±0.3 mm), 3 group (3.0±0.3 mm). Retraction of FGG was 31%; CM — 42% from initial on 28 day post. op. The largest edema and hyperemia were in patients with CM. The most painful post operative period fived in patient with FGG. The period of wound epithelisation in patients from 1 group (13.75±0.65), 2 group (12.5±0.6 mm), 3 group (16.8±0.7 mm). Morphological study of biopsies gingival mucosa after different plastic operations showed that all methods of plastics cause regeneration of stratified squamous keratinized epithelium and subepithelial mucosal own lamina.

Conclusions. Surgical techniques increasing keratinized attached gingiva improve the effectiveness of patient care. The use of collagen matrix can be recommended as a method of choice to increase the width of keratinized attached gingiva.

PROGESTERONE INDUCES DIFFERENTIATION OF ADIPOSE DERIVED STEM CELLS TO SCHWANN CELLS

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Key words: *differentiation, progesterone, Schwann cell, peripheral nerve*

Progesterone plays a significant function in myelination of peripheral nerves and improves the formation of new myelin sheaths subsequent to damage of the mouse sciatic nerve. In addition progesterone has promoted myelination of axons when added to explanted cultures of rat dorsal root ganglia accelerate the time of beginning of myelination and to increase the amount of myelin synthesis in cocultures of Schwann cells and sensory neurons. It has shown that progesterone expands activity of the gene's promoters coding the peripheral myelin protein-22 (PMP-22), and the protein zero (P0). Furthermore Progesterone and its 5α-reduced metabolites drastically increased P0 mRNA levels in Schwann cell cultures. Also, PMP-22, myelin basic protein (MBP), and P0 protein levels were greatly improved by progesterone in co-cultures of dorsal root ganglion neurons and Schwann cells. Progesterone can improve myelination through increasing the expression of transcription factors that are concerned in Schwann cell differentiation and myelination. Recently, two transcription factors have been detected to be essential for promyelinating-to-myelinating alteration including SCIP (Oct-6/Tst-1) and Krox-20 (Egr-2). Krox-20 is expressed by promyelinating cells and its expression is continued during the procedure of myelination. Krox-20 is considered as a key element of the transduction cascade relating axonal signals to myelination. Block of Krox-20 stops the differentiation of Schwann cells at the promyelinating phase and led to lack of myelination.

Understanding the consequence actions of progesterone in the myelination process and MSC_s differentiation to Schwann cells inspired us to propose that progesterone will be differentiate adipose tissue-derived stem cells to the Schwann cell.

MORPHOLOGY OF HUMAN CORPUS CALLOSUM IN IRANIAN POPULATION — AN IMAGING ANATOMICAL STUDY

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Key words: *morphology, corpus callosum, retrospective study*

Background. Topography of the human corpus callosum has occasionally studied in different populations.

Aim. The purpose of this study was to evaluation the morphology of human corpus callosum in Iranian population via magnetic resonance imaging.

Material and Methods. Retrospective cross-sectional study. Design of the study was retrospective cross-sectional study. Seven hundred and seven normal magnetic resonance imaging (MRI) were enrolled to our study. The shape, anterior-posterior length and area of corpus callosum as well as their