28th International Conference on

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Keynote

Blood & its products as regenerative agents in dentistry

Dr. & Prof. Preetinder Singh
Academy of Oral Surgery, USA.

Abstract:
Bone regeneration in dentistry involves the use of cells, biological or artificial biometric scaffolds, and biofactors that promote cell growth and differentiation along complex pathways to repair the tissue.Growth factors have a crucial role in this process since they influence chemotaxis, differentiation, proliferation and synthetic activity of bone cells, thereby regulating physiological remodeling and bone healing.That makes the use of the autologous and recombinant growth factors (GF) a rapidly growing field of regenerative dentistry focusing on manipulating GF and secretory proteins to maximize the healing of bone and soft tissues.Most of the growth factors derived from autologous blood is released upon platelet activation, and their clinical use has been popularized with Platelet-rich plasma (PRP), Platelet rich fibrin (PRF) & its advancements namely A-PRF& i-PRF, Concentrated Growth Factors (CGF), Sticky Bone Concept etc. It is time to use this 'BLOOD' in different ways to achieve regenerative potentials in the field of dentistry.

Biography :
Dr. Preetinder Singh (MDS) is working as a Senior Professor in Department of Periodontology & Oral Implantology in SDD Hospital & Dental College, India and as a Senior Consultant in various dental offices around the country. Dr. Singh is am AMBASSADOR, AMERICAN ACADEMY OF ORAL SURGERY. He is the Editor in Chief of Journal of Periodontal Medicine & Clinical Practice and Associate Editor of various other famous journals. He was awarded the Best Graduate Award and Gold Medal by Kurukshetra University, Haryana, India during his BDS, based on his outstanding academic record. He has a keen interest in academics, research and clinical practice. He has around 55 research publications in various national and international journals of repute. Dr. Singh is an invited senior reviewer for 5 leading international journals indexed in PUBMED. He also has three textbooks published internationally, attached to his career till date. Dr. Singh has a great interest in periodontal & implant research field and is an invited KEYNOTE speaker for corporate lectures on his expertise in dentistry at a national & international level. He also holds a place of doing the first study in INDIA on use of recombinant PDGF in treatment of gingival recession defects. He is presently working on microsurgery, advanced Implantology, PRF, LANAP etc. Under his guidance and work, his department was awarded as the centre of excellence in dental implants in his state.

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Endodontic surgery with bone replacement

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OMF Surgeon, Owner, Tirana, Albania.

Abstract:
Purpose: Patients are everyday more demanding, trying to save their teeth for as long as possible. This brings many times the need for surgery. They obviously would prefer to solve in less surgery sessions possible. In most cases, the hard and soft tissues around the teeth change significantly with infection, aging and various factors. Often, different graft materials are required to be placed to maintain the volume of hard and soft tissue and thus maintain these teeth in time.

Method:
Endodontic retreatment is always a good choice when possible. CBCT is always used to assess presurgical situation and program an optimal surgical treatment. Latest CBCT and CAD-CAM technologies allow a very realistic presurgical programing if guided surgery is chosen. Piezo technologies allow precise spacing and expansion of alveolar ridge or autologous bone grafts. Laser also allows better cleaning of infected area as before. The ideal material for hard tissue grafting is osteoconductive, osteoinductive and osteogenic. That is why autologous bone graft is considered to be the "golden standard" reference graft. Several systems to collect autologous bone are used. Bone Scrapers allows the collection of cortical bone easily. Unica allows bone collection in the implanted alveolus we are creating or in the distance. Extracted teeth provide a valid substitute to autologous bone. Recent generations of biomaterials allow for a good supply of the required amount, which cannot be autologously collected. Venous Blood collection Systems such as BCGF allows the formation of fibrin membranes for their coverage and also the liquid fibrin that compacts bone particles in “Sticky Bone” and “Sticky Tooth” ®. Several materials were also used in retrograde filling of the apical area.

Results:
We used the autologous teeth grinding system, Smart Dentine Grinder, BCGF, Safe Scraper, Unica, Piezo, laser, CAD-CAM, CBCT and various biomaterials of the latest generation, in various procedures involving enhancement and improvement of teeth defect in apical and lateral area during endodontic surgery with several mini-invasive techniques.

Conclusions:
The use of autologous, bone and tooth grafts, whenever possible presents a procedure not always easy to apply. The procedure for soft and hard tissue graft preparation is not always simple and often requires time to acquire and so does the technical skills needed.
Better start a surgery after trying retreatment as an option whenever possible. New concepts in the preprograming and guided surgery strongly influence the long-term success. Grafting with suitable materials is in many cases improving the outcome even in small defects and a must in big ones..

Biography:
Gurien Demiraqi Graduated in dentistry in the Faculty of Dentistry, Tirana University in 2003. From 2003-2006 he specialized in Oral surgery and Implantology with DDS, BwKh Berlin (University hospital of Charite) and OMF Surgery, BwKh Amberg (University hospital of Friedrich-Alexander Universität Erlangen-Nürnberg) Germany, BwzKh Koblenz (University hospital of Johannes Gutenberg University-Mainz) Germany.

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