

Title: Role of Leucocytes and Plasma rich Fibrin in Regenerative Dentistry

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Periodontitis is an infectious disease that causes destruction of the tooth attachment apparatus. Untreated periodontitis results in progressive attachment loss that may eventually lead to early tooth loss. There are a broad range of treatment options available, but only some may be regarded as truly regenerative procedures. Regeneration is defined as the reproduction or reconstitution of a lost or injured part of the body in such a way that the architecture and function of the lost or injured tissues are completely restored. The aim of regenerative periodontal therapy is to restore the structure and function of the periodontium. Periodontal regeneration requires an orchestrated sequence of biologic events, such as cell migration, adherence, growth, and differentiation, to have the potential to increase the success and predictability of periodontal regenerative procedures. According to a position paper from the American Academy of Periodontology, periodontal regenerative procedures include soft tissue grafts, bone replacement grafts, root biomodifications, guided tissue regeneration (GTR), and combinations thereof for osseous, furcation, and recession defects. For many years, research has attempted to use biologically active molecules to achieve periodontal regeneration

A convenient technique to obtain a high concentration of PDGFs is by preparing autologous leucocytes-platelet rich fibrin (L-PRP). In basic terms, it involves the sequestration and concentration of platelets in plasma, with subsequent application of this preparation to wound-healing sites. It has been shown that application of L-PRP to the wound-healing site increases the concentration of platelets (and theoretically of PDGF) by up to 338%.

It was also speculated that, because of its fibrinogen content,

L-PRP reacts with thrombin and induces fibrin clot formation, which, in turn, is capable of upregulating collagen synthesis in the extracellular matrix and provides a favorable scaffold for cellular migration and adhesion. Various studies have reported on the use of PRP in the treatment of periodontal intrabony defects (IBDs) either alone or in combination with grafts or in the treatment of furcation defects.

Biography

Dr. Aiman Obeid has completed his specialization in orthodontic in 2012 in Belarussian Medical State University, Belarus. After that he started his work as an orthodontist in UAE, he published his scientific work (about self ligating braces) in one of reputed medical journals, translated a research of 140 pages in lingual braces. Participated as a speaker in "2nd International Conference on Dental Practice" (webinar) about "AN EASY WAY TO BRACES SYSTEME". Spoke in TV interviews in famous local and international TV channel.