The effect of using different types of orthodontic forces upon the level of interleukin II in the human gingival crevicular fluid: A clinical study

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Efficiency of orthodontic forces with different durations and strengths has long been an important issue in clinical orthodontics. However, evidence on biological markers and force levels is lacking. Hence, current randomized split mouth study design was used to evaluate the efficacy of two different orthodontic force levels on inducing initial tissue reaction by measuring the mediator of bone resorption "Interleukin 2" (IL-2). The sample consisted of ten participants selected randomly from the orthodontic department of Alexandria University according to strict selection criteria; the treatment plan for all participants required extractions of upper right and left maxillary first premolars with maximum anchorage requirements. Samples of IL-2 were collected from the distal surface of canines on both sides and analyzed using ELISA kit for human IL-2. Increase in the level of IL-2 was noticed on both control and test side being 40.2% and 67.5% respectively, in the overall change in enzymatic activity. Thus, it was more efficient at the gradual increasing force side with weekly increment showing better initial tissue reaction for bone resorption.

Biography

Ammar Mahjoub Blich has obtained his MD in 2011 from Orthodontic Department of Alexandria University. He has published his study in the Journal of Dental Health, Oral Disorders & Therapy. He is a member of World Federation of Orthodontist (WFO), American Association of Orthodontics (AAO), Syrian Dental Association (SDA) and Emirates Medical Association (EMA). He is now practicing as an Orthodontist in the city of Dubai.

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