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Modern Orthodontic with laser and electromagnetic waves

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Evolution used laser at the beginning of this century, particularly in dentistry, we have begun to develop a plan for scientific research in the use of laser in orthodontics. The increase of deformation and jaw disorders at children nowadays leads to the need of new complete developed ways of orthodontic treatment. The increase of deformity and up normality of jaws at children happens with accordance of diseases of gingival tissues and caries; consequently, it leads to hardships of orthodontic treatment. Problems seen during orthodontic treatment are: 1. The environmental situations which cause effects upon immune system with disorder of accommodation in orthodontic treatment. 2. Hygiene, quality and types of materials used during treatment. Thus, orthodontic treatment leads to: 1. Bad immunological state in body system and reformation of bone tissues around moved teeth. 2. Destruction of bone tissues and difference in the blood circulation in gingival tissues. 3. Up normality of reaction of oral cavity. It is necessary to invent new multi-system ways which improve orthodontic treatment, in addition to decreasing of teeth caries and gingival tissues inflammation with correction of reactions in oral cavity. Those issues mentioned are some of important problems that have not been followed carefully in traditional orthodontics. Advantages of laser orthodontics for patients: With no doubt, we have a big advantage towards the conventional treatment. It is commonly believed to think of orthodontists as the people who activate brackets. By using laser nowadays, you have technical possibilities to adjust the laser settings in a way that you can treat a patient in an integrated way without teeth caries or gingival tissues inflammation in addition to the correction of reactions in oral cavity, and Shortening of the period of treatment, help in fixing teeth after orthodontic treatment, activating osteo and gingival cells though, you are still very effective. So, this is a very big advantage. And in addition to the known benefits of the laser effect. we will notice a correction of reaction resulted during orthodontic treatment with laser and electro-magnetic waves in the oral cavity, we will see: 1. The change of activity of Non-Oxidizing Enzymes of Saliva. Also, we will see decreasing of protein, katabsen -D and lactase concentration, high concentration of calcium and phosphor. This is confirmed in the case of improving functional reactions in the organism, the low level of inflammation in the oral cavity, Active construction and demolition operations in the bone tissue, change of the activity of enzymes increases: the activity of alkaline and acid-phosphates, there are many factors that have changed such as activity PH and other things affecting the mouth and physiological status that we will talk about later. The main goal obtained here is to get a new model of the use of combined application of lasers and electromagnetic waves (EMW), low density. It is a partnership between the laser and (EMW) in the use of combined therapy at various stages of orthodontic treatment; in which the red laser and infrared are absorbed by protein molecules cells.

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