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Effect of 915nm diode laser on some hormones & minerals concerning with fracture healing

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Abstract

Present the interrelationship between laser radiation and stimulation the hormones and minerals involved in fracture healing. The role of L.L.L.T. in regeneration grows especially in the fields of fracture care. Twenty four rats used in this study, they were divided into two groups with twelve rats each. (control and treated with diode laser). A fracture was induced in the tibia using two sterile artery forcipes. Blood samples were collected from the animals and sent for examination with Elisa to determination the levels of growth hormones (GH), Parathyroid hormone (PTH) and Calcitonin hormone (CTH) and with spectrophotometer to determine the levels of Calcium (Ca), Phosphorus (P) and Magnesium (Mg). The readings obtained from the laboratory estimations tested statistically using Minitab test. Statistical evaluations revealed significant variations in the values of GH, PTH, CTH, Ca, P and Mg in the blood samples between the two groups $P< 0.05$. L.L.L.T. has a stimulatory effect on the hormones and minerals which intervene with fracture healing.

Key words: Laser, Minerals, Fractures.

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