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Inflammatory response of injured diabetic fibroblasts after low intensity laser irradiation at a wavelength of 830 nm

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Diabetes mellitus (DM) is a chronic disease characterized by impeded glucose metabolism and preceded by diabetic ulcers which are chronic due to deteriorated healing process. Hypoxia, decreased fibroblast proliferation and impaired growth factors are amongst root factors that contribute to impaired healing. Photostimulation is a non-invasive treatment that utilizes low intensity laser irradiation (LILI) to provide healing or stimulate appropriate cellular functions. Human skin fibroblast cells (WS1) were used in this study that consisted of four groups viz. normal, normal wounded, diabetic wounded and hypoxic, each with a non-irradiated control. Wounding was simulated by creating a central scratch using a pipette. A diabetic state was induced by growing cells in media that contained excess glucose to a final concentration of 22.56 mM, and for hypoxic insult cells were incubated under anaerobic conditions (0

Level (Hons, MSc, PhD, other)?

DTech

Consider for a student award (Yes / No)?

yes

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

yes

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