The Effect of Silver Nanoparticles Socks on the Treatment of Diabetic Foot

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According to the World Health Organization, the number of people living with diabetes has increased from 108 million in 1980 to more than 422 million in 2017. Poor blood flow and neuropathy in the feet is one of the major complications of diabetes. Moreover, the risk of foot ulcers and infection could lead to amputation and life threatening . This research is designed for the aim of producing socks saturated with silver nitrate nanoparticles from a plant source. Different concentrations of silver nitrate was mixed with Eruca sativa plant extract to generate silver nanoparticles. The socks that saturated with different concentration of nanoparticles were placed on 2cm wound made in foot of diabetic mice to test the time needed for wound healing. Our results are promising and show that Nano-silver stockings are effective in healing wounds remarkably on laboratory animals. The healing rate was proportional with the Nano-Silver concentration. Future work is be needed to test the suitability of Silver Nanoparticles Socks in human diabetic foot.

Awards Won:
Fourth Award of $500