Understanding the influence of diabetes on wound healing and exploring effective management study

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Diabetes is a diverse metabolic disease that is caused by increased levels of blood glucose, which also leads to the generation of several other complications. The formation of wounds and their delayed healing are among the main areas of concern. Wound repair is a process, which replaces damaged cells with healthy cells; it generally occurs in four steps – haemostasis, inflammation, proliferation and remodelling. This review covers the causes of diabetes mellitus, its prevalence, its impact on wound healing, different types of wounds and their management. Diabetes mellitus impairs wound healing through several mechanisms such as impaired angiogenesis, altered collagen production, etc.

Keywords: Angiogenesis, collagen, diabetes mellitus, growth factor, remodelling, ulcers, wounds.

T2DM. According to the IDF, diabetes prevalence is expanding internationally, with an anticipated 700 million individuals developing diabetes by 2045 if the present trends continue. It has increased due to causes such as ageing populations, urbanization, bad diets and physical inactivity. About 541 million people have IGT, which increases their risk of developing T2DM. Diabetes claimed the lives of 416 individuals worldwide. The Western Pacific area has the highest incidence of diabetes (15.3%), followed by the Middle East and North Africa region (11.9%), while Europe has the lowest prevalence (7.7%)[4]. Diabetic wounds show up as painful blisters involving cutaneous tissue breakdown involving the subcutaneous tissue, the epidermis and frequently, the dermis. Wounds or cutaneous ulcers are prevalent among people with diabetes, particularly across the lower portions of the body. Approximately 25% of those diabetic patients have a lifelong possibility of suf-