عنوان مقاله:
THE FUNCTIONS OF MICRO-RNAS (miR-۳۱) IN WOUND HEALING

محل انتشار:
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خلاصه مقاله:
Skin is an essential biological barrier of the human body, and wound healing is the fundamental physiological process to keep its integrity. Chronic non-healing wounds are growing socioeconomic and health concerns, which longs for more understanding of their pathophysiology to discover effective treatments. In this thesis, we focused on how microRNAs (miR) work together with their target protein-coding genes to regulate the complex wound healing process, they play in chronic wounds we aimed to discover potential therapeutic targets. In some study, a distinct up-regulation of miR-۳۱ in human acute wounds was identified from profiling analysis. We discovered miR-۳۱ as a pivotal regulator in promoting keratinocyte proliferation and migration by targeting EMP۱ during wound healing, emphasizing its importance in re-epithelialization. In other research, miR-۳۱ family, as a famous tumor suppressor, popped out amidst the top upregulated microRNAs in venous ulcer. miR-۳۱c enhanced inflammatory response of epidermal keratinocytes via targeting LGR۴ and positively regulating NF-κB signaling pathway. Intradermal injection of liposome-encapsulated miR-۳۱ mimics effectively accelerated wound healing. Conclusively, this thesis investigated the crucial functions of miR-۳۱ in different phases of normal skin wound healing process and in chronic wounds and pointed out a promising potential of microRNA-based therapy in treating chronic wounds.

کلمات کلیدی:
wound healing, miR-۳۱, inflammatory factor, Micro-RNAs