

Accepted Manuscript

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PII: S1008-1275(17)30159-1

DOI: [10.1016/j.cjtee.2017.06.001](https://doi.org/10.1016/j.cjtee.2017.06.001)

Reference: CJTEE 248

To appear in: *Chinese Journal of Traumatology*

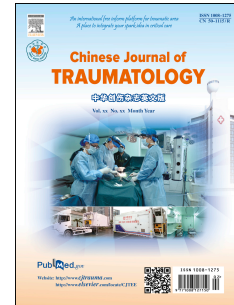
Received Date: 2 June 2017

Revised Date: 7 June 2017

Accepted Date: 7 June 2017

Please cite this article as: Qing C, The molecular biology in wound healing & non-healing wound, *Chinese Journal of Traumatology* (2017), doi: 10.1016/j.cjtee.2017.06.001.

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The molecular biology in wound healing & non-healing wound

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Received: 2nd June 2017

Revised: 9th June 2017

Accepted: 18th June 2017

Abstract The development of molecular biology and other new biotechnologies helps us to recognize the wound healing and non-healing wound of skin in the past 30 years. This review mainly focuses on the molecular biology of many cytokines (including growth factors) and other molecular factors such as ECMs on wound healing. The molecular biology in cell movement such as epidermal cells in wound healing was also discussed. Moreover many common chronic wounds such as pressure ulcers, leg ulcers, diabetic foot wounds, venous stasis ulcers, etc usually deteriorate into non-healing wounds. Therefore the molecular biology such as advanced glycation end products (AGEs) and other molecular factors in diabetes non-healing wounds were reviewed.

Key words: Molecular biology; Cytokines; Wound healing; Non-healing wound, Advanced glycation end products, Diabetes

In the past 30 years, the development of molecular biology and other new biotechnology helps us to recognize the wound healing on normal skin that damaged by external factors such as physical, chemical, thermal, biological and so on. At first, we can only know the progress is composed of hemostasis, inflammation, proliferation and maturation, during which the platelets, neutrophils, monocytes/macrophages, lymphocytes, granulation tissue, fibroblasts, collagen, epidermal cells, etc are observed involving in under microscope, followed by soluble mediators such as chemokines, cytokines (including growth factors) and other molecular factors. Many new observed molecular factors help us to further know the mechanism in the process of wound healing at damaged skin.

Mechanism of wound healing

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