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Aging and Wound Healing of the Skin: A Review of Clinical and Pathophysiological Hallmarks

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Abstract

Aging is a universal process that can cause diminished function of organs and various diseases. The most striking consequences of aging can be seen visibly on the skin, which acts as a barrier against various external insults. Aging of the skin consists of intrinsic and extrinsic processes that work in concert and influence each other. Intrinsic aging involves biochemical degenerative processes that gradually takes place with age. Extrinsic aging are biochemical processes driven by external influences that lead to aging. There are significant morphological changes at all levels in aged skin that have a profound effect on the characteristics of the skin. Even though skin is subjected to damage by external insults, it is equipped with a healing capability in order to restore its normal

structure and function. However, aging has a significant impact on the skin's healing function by prolonging the inflammatory phase and increasing the production of reactive oxygen species (ROS). This shifts the healing process towards having more protein degradation, which can lead to chronic wound healing with an abundance of complications. © 2022 by the authors.

Author keywords

aged skin; extrinsic aging; intrinsic aging; wound healing

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Abstract

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