

Morphological analysis of reticular dermis and analysis of  
keloidal collagen of human keloid tissue

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Keloid is a fibroproliferative disease that is caused by abnormal wound healing in the dermis. It is often triggered by acne and trauma. The pathophysiological mechanisms by which keloids develop remain to be elucidated. At the histopathological level, keloid is characterized by collagen fibers called keloidal collagen (KC) or hyalinized collagen. We asked how these collagen fibers are produced. At present, it is thought that they are produced by fibroblasts and then denature into keloid collagen. However, our immunoelectron microscopy study suggested that the cells around KC may be  $\alpha$ SMA-positive myofibroblasts, as indicated by a dense body at the cell margin and their enrichment in actin fibers. This suggests that KC may be produced and accumulated by  $\alpha$ SMA-positive myofibroblast-like cells rather than being secreted and then simply denatured.