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**Abstract** : Keloids are defined as thick scars of human skin or cornea produced by deposition of excessive amounts of collagen over prolonged periods. The availability of a large number of treatment modalities suggests that none of the techniques provides a consistently satisfying results, this is not surprising since the etiology and pathogenesis of keloids are still unknown. Despite previous extensive works there is a conflict opinions that might be due passing over the histological changes result from treatment by one or more form of available therapeutic modalities. The present study work aims at providing a comparative morphological, histological, and histochemical description between normal, untreated and treated keloids by corticosteroid. Normal skin and keloid specimens were obtained from different regions. The total was 28 specimens, 7 normal and 21 keloid. Ages ranged from 5–68 years. The histological examination reveals a marked reduction or absence of elastic fibers in both treated and untreated keloid comparing with normal skin. However, the major histological feature in keloid was the presence of whorls and nodules of abnormal excessive amounts of thick hyalinized eosinophilic collagen fibers (keloidal collagen), the margins of the fibers was irregular and merged with the adjacent nearby connective tissue. In contrast, normal skin collagen fibers run parallel to the skin surface with a clear cut margins. In the other hand a decrease in collagen bundles diameter and in nodular structure size were observed in treated keloid. Statistical analysis elucidated an increase numbers of mast cells, lymphocytes, macrophages in untreated keloid compared to treated keloid and normal skin. Our comprehensive study showed that keloid differs from normal skin by their rich occluded blood vessels, but in treated keloid some thin walled formed blood vessels were observed. In vitro study revealed that fibroblasts derived from keloid lesion are morphologically different from normal fibroblasts, both of them also differs in growth rate.

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