

To Some, Knife can Give Keloid

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Abstract

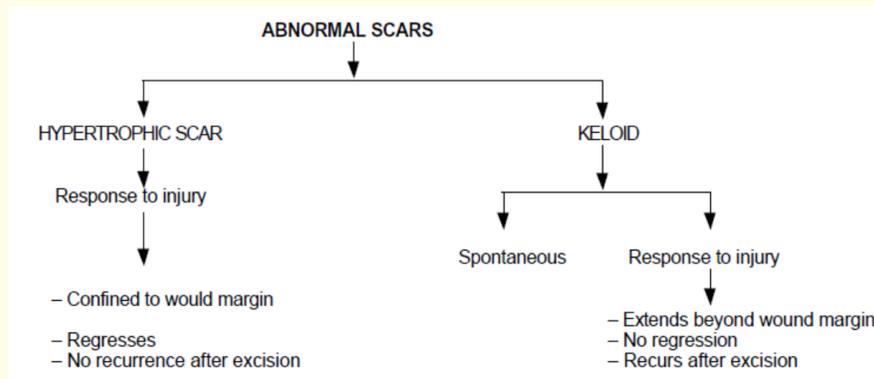
Keloids are annoying bulged structures formed by hyper proliferative growths of dermal fibroblasts due to imperfection of epithelisation during healing of a wound on the skin. The bulged is filled with collagen, fibronectin, elastin, proteoglycans, and growth factors such as transforming growth factor (TGF) β . Keloids are more likely to develop on to who have a family history. They are histologically different from hypertrophic scars and skin cancers. There is no specific treatment for this since on any injury these structures reactivate, nevertheless, Harvard medical school, trusted advice for a healthier life has suggested possible treatments which we have included here as such.

Keywords: Keloids; Transforming Growth Factor (TGF) β

Any insult, such as, trauma, surgery, blisters, vaccinations, acne or body piercing which injured the human skin Keloids may develop. Many skin disorders can develop due to abnormal expression of its components [1-3]. Keloids are raised by hyperproliferative growths of dermal fibroblasts characterized by the excessive deposition of extracellular matrix components, especially collagen, fibronectin, elastin, proteoglycans, and growth factors such as transforming growth factor (TGF) β [3]. Keloids are Overgrowths of scar tissue that occur at the site of a skin injury or they can grow even far from the site of injury [4]. Keloids can occur in any skin type however they are more likely to form in: those who have a family history of keloids. Although a keloid scar can form on anyone, some ethnic groups are at a greater risk of developing them. African Americans and Hispanics are 16 percent more susceptible, for example, and keloid scars are seen 15 times more frequently in highly-pigmented ethnic groups than in Caucasians [5].

Some people are prone to keloid formation and may develop them in several places, even far off from the site of injury. Keloids may continue to grow slowly for weeks, months or years but once they attain maximum size they eventually stop growing for unknown reason but typically do not go away on their own. Once a keloid develops, it is permanent [5].

Keloid is a fibrotic skin disease for which immune cell infiltration is a primary pathological hallmark. A scar is made up of 'connective tissue', gristle-like fibers deposited in the skin by the fibroblasts to hold the wound closed. With keloids, the fibroblasts continue to multiply even after the wound is filled in. A hypertrophic scar looks similar to a keloid. Hypertrophic scars are more common. Ultra-structural features of keloids, pathological as well as spontaneous, are described in other publication earlier [4]. Sandwiching of the stratum corneum between two layers of stratum granulosum and the absence of keratohyalin granules were observed. In keloid epithelial cells, tonofilaments were clumped and omnipresent from the basal cells to the upper-spinous layer. Anchoring fibrils and hemidesmosomes were reduced in number in keloids, whereas they were almost absent in spontaneous keloid epithelium [4]. The discontinuous aid differential thickness of the basement membrane was evident in keloids but was not distinctly visible in spontaneous keloids. There are basic differences between normal healing and abnormal healing of wounds however even in healing one pathway gives hypertrophic scar whereas the other path way results in to keloids (see flow chart).



Flow Chart: Flow chart showing if wound is not healing in a normal way, it may take the turn and follow either pathway: in one pathway it forms hypertrophic scar where the growth does not extend beyond the wound margins and there is no recurrence even after new excision. On the other hand keloid can either develop spontaneous or may develop response to injury. The growth generally extends beyond the wound margins and recurs on excision.

Most keloids occur sporadically, but some keloid cases are familial. A hereditary component in keloid etiology has been considered, mainly based on the higher occurrence in darker-skinned races. Most previous genetic keloid studies, however, are based on small families.

Uncontrolled growth, generally, considered a sign of cancer, however keloids are benign out growth on skin. Ultra-structural morphology [6,7] and gene expression in these two cases are quite different [7].

After attaining some growth, the keloids do not disappear themselves. One way to treat keloids is to remove them surgically, but because most people with keloids continue to be prone to abnormal scarring, a keloid may grow back in the same place after the surgery [8]. It is common for keloids that have been removed or treated to return, and therefore, they are difficult to treat. The decision to treat a keloid can be a tricky one; keloid scarring is the result of the body's attempt to repair itself. Nevertheless, Harvard medical school, trusted advice for a healthier life has suggested possible treatments. To someone one of these may work:

- **Removal with conventional surgery:** This unreliable technique requires great care, and keloids that return after being removed may be larger than the original. Keloids return in more than 45% of people when they are removed surgically. Keloids are less likely to return if surgical removal is combined with other treatments.
- **Dressings:** Moist wound coverings made of silicone gel sheets have been shown in studies to sometimes reduce the size of keloids over time. This treatment is safe and painless.
- **Corticosteroid injections:** Injections with triamcinolone acetonide or another corticosteroid medicine typically are repeated at intervals of four to six weeks. This treatment can often reduce keloid size and irritation, but injections are uncomfortable.
- **Compression:** This involves using a bandage or tape to apply continuous pressure 24 hours a day for a period of six to 12 months. Such compression can cause a keloid to become smaller. For keloids that form at the site of an ear piercing, a clip known as a «Zimmer splint» usually reduces keloid size by at least 50% after one year of compression. Zimmer splints that resemble earrings are available.
- **Cryosurgery:** This freezing treatment with liquid nitrogen is repeated every 20 to 30 days. It can cause a side effect of lightening the skin color, which limits this treatment's usefulness.
- **Radiation therapy:** This therapy is controversial because radiation increases the risk of cancer. Radiation treatments may reduce scar formation if they are used soon after a surgery, during the time a surgical wound is healing.
- **Laser therapy:** This is an alternative to conventional surgery for keloid removal. There is no good evidence that keloids are less likely to return after laser therapy than after regular surgery.
- **Experimental treatments:** One treatment showing promise is injecting keloid scars with medicines that were developed to treat autoimmune illnesses or cancers. Treatments with these medicines (various types of interferon and the chemotherapy agents 5-fluorouracil and bleomycin) will need to be evaluated further before they are appropriate for use outside of research studies.

Conclusion

Keloids may develop spontaneously or in response to insult of the skin. They are benign outgrowth on the skin; filled with collagen, fibronectin, elastin, proteoglycans, and growth factors such as transforming growth factor (TGF) β . They normally developed to a person who is predisposed. Histopathologically, they are different to skin cancers and hypertrophic scars. There is no established treatment for this skin disorder.

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