



## KELOID ON THE SOLE : A RARE CASE REPORT

### Dermatology

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### ABSTRACT

Keloids represent an excessive connective tissue response to injury, which maybe trivial. Keloids are exuberant fibrotic scars which extend beyond the site of trauma, while hypertrophic scars are limited to the trauma site.

### KEYWORDS

Keloid, Hypertrophic Scar, Connective Tissue

#### INTRODUCTION:

Keloids are benign lesions that may recur locally but in general their growth is not destructive and they do not metastasize. Keloids are often associated with severe itching and pain.

There is usually a history of prior trauma, but some keloids apparently arise spontaneously<sup>1</sup>. Compared to a keloid a hypertrophic scar remains confined to the margins of the initial injury and tends to resolve in time<sup>2</sup>.

#### CASE REPORT:

A 32 year old male came to the Dermatology OPD with complaints of skin colored raised lesion over the sole of the right foot since the past 6 months. The patient had developed a corn over the sole of the right foot 7 months back. The corn was surgically excised.

The patient noticed a skin colored linear swelling over the sole of the right foot after one month of the surgery. The swelling progressively increased in size. He complained of severe itching over the lesion and also pain on walking. No history of similar lesions elsewhere. No history of similar lesions in the family.

On examination, linear, skin colored, oblong plaque with irregular or serrated margins extending beyond the margins of the surgical incision. Hard in consistency. No erythema. No tenderness.

Skin biopsy was done and histopathology showed hypo cellular zones of fibrous tissue containing thickened, glossy eosinophilic hyalinized collagen bundles arranged in a haphazard fashion.

#### DISCUSSION:

Keloid (Greek chele = crab's claw and -oid = like) is an area of overgrowth of fibrous tissue that usually develops after healing of a skin injury and extends beyond the original defect.

The basic pathology of keloid formation is an imbalance between the anabolic and catabolic phases, more collagen is produced than is degraded, and the scar continues to grow. About 6-8 weeks after the original injury, the anabolic and catabolic process achieve an equilibrium in a typical wound. As the scar matures it is usually hyperemic and thickened; but it tends to resolve over months into a flat, pliable, mature scar. However, because of the imbalance between the anabolic and catabolic state, the scar continues to grow. The scar is raised above the surface of the skin and remains hyperemic.

Keloids usually follow trauma but there onset maybe delayed. Keloids are found in associations with Dupuytren's contracture, Ehlers-Danlos syndrome, Pachydermoperiostitis, and Rubenstein-Taybi syndrome.

Keloids do not usually cause symptoms, but pruritus, pain, burning sensation and tenderness maybe present. Keloids present as skin colored plaques or nodules, oval or oblong with regular or irregular borders. Their consistency varies from soft to rubbery and hard and are usually devoid of hair follicles. Common sites involved are shoulders, chest, ear lobes, and upper arms. Rarely the flexor surfaces, joints and abdomen maybe involved.

Histopathology is that of keloid shows nodular whorled masses with reduced vascularity. These hypo cellular zones of fibrous tissue contain thickened, glassy, hyalinized, eosinophilic collagen bundles<sup>3</sup>. The main differential diagnosis is a hypertrophic scar which limits itself to the margins of the defect, and histologically has cellular nodules with vertically aligned vessels<sup>4</sup>. Other differentials include Sclerotic BCC, scar sarcoïd, malignancy in a scar and dermatofibrosarcoma.

The patient is reassured and advised intralesional steroids. Other treatment options include Cryotherapy, Cryotherapy followed by ILS, pressure therapy, laser therapy, topical retinoic acid, imiquimod, tacrolimus, colchicine, radiotherapy<sup>5</sup>.

#### CONCLUSION:

Keloids are primarily of cosmetic concern. No single therapeutic modality is effective for keloids.

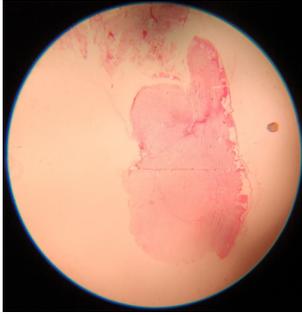
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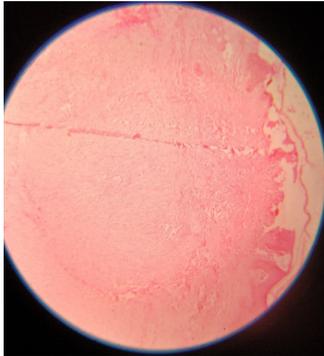
#### LEGENDS TO IMAGES



**FIG 1-Clinical picture showing Keloid of 4\*2 cm over the sole of right foot**



**FIGURE 2- Scanning view showing epidermal atrophy with increased collagen in dermis**



**FIGURE 3- Low power view showing hypocellular nodules with haphazard arrangement of collagen fibers**

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