Collagen Nevus over Herpes Zoster Scar: An Increased Immune Response or a Separate Entity

Kapila Verma , Devanshi Singh , Aditi Tripathi, Shrini Parikh, Vivek Dey
Department of Dermatology, People's College of Medical Sciences & Research Centre, Bhanpur, Bhopal - 462037

Case Report

ABSTRACT

Herpes zoster lesions are well known to heal with abnormal scar formation. Collagen deposition occurs as a result of abnormal immunological and inflammatory response within the tissue. Whereas, connective tissue nevi are formed by structural alteration or increase in collagen or elastin fibers, we report a case of a young male whose herpes zoster lesions healed with formation of a collagen nevus.

KEY WORDS: connective tissue nevi, herpes zoster, isotropic response

INTRODUCTION:

Wolf et al described isotropic response as the occurrence of a new, unrelated disease over a previously healed disease, and the most common primary skin disease of this phenomenon is herpes zoster[1]. Scars are formed by collagen deposition, which is produced by fibroblasts during normal procedure of wound healing. Hypertrophic scars are formed when fibroblasts fail to stop producing collagen. Immunity plays a vital role in the development of abnormal scars[2]. Collagen nevi are clinically heterogeneous group of hamartomas named according to the constituent predominant cell type[3].

CASE REPORT:

An 18-year-old male presented with multiple grouped firm white to yellow colored papules over right side of abdomen lateral to the umbilicus extending over the flank and back. These papules were associated with occasional itching and 1-2 episodes per month of moderate pain, which were relieved by medication. The patient had history of herpes zoster 4 years ago for which he took treatment. It was followed by eruption of asymptomatic raised lesions over a period of 3-4 months.

Biopsy showed a thickened reticular dermis with haphazardly arranged thickened collagen bundles. There was no increase in the number of fibrocytes or capillaries. Overlying epidermis showed gentle mamillation and proved it to be a collagen nevus.

DISCUSSION:

Several cutaneous lesions have been reported to occur at the site of herpes zoster scar and they include hypertrophic scar, keloids, granulomatous dermatitis, granuloma annulare, comedones, xanthoma, acneiform eruption, pseudolymphoma, psoriaisis, lichen planus, lichen simplex chronicus, eosinophilic dermatosis, lichen sclerosus,Kaposi sarcoma, lichenoid variant of chronic graft-versus-host disease, cutaneous sarcoidosis, furuncles, erythema annulare centrifugum, eosinophilic dermatosis, granulomatous vasculitis, Rosai-Dorfman disease, xanthomatous changes, tuberculoid granulomas, acquired reactive perforating collagenosis, lymphoma, leukemia, angiosarcoma, basal cell carcinoma, squamous cell carcinoma, and cutaneous metastasis from internal carcinoma, morphea, fungal folliculitis, dermal mucinosis etc[1,4]

Connective tissue nevi are hamartomous lesions of dermis usually with a mixed

Corresponding Author:
Dr Kapila Verma
P-7, Priyanka Nagar, Opposite D-Mart,
Kolar Road, Bhopal - 462016
Phone No.: 8731088378
E-mail: vkapila10@gmail.com

histological composition, in which a predominant component is present. Collagen nevi usually present at the age of 2 years. It may be single or can be present at multiple places. It can continue to grow with time and may sometimes present with some extra-cutaneous features. Lesions are poorly circumscribed and non-encapsulated and histopathology shows thickening of the dermis with replacement of the normal dermis or subcutis with lesional tissue. This lesional tissue is often composed of irregularly arranged collagen fibres with or without variable amounts of abnormal elastic tissue[5].

Figure 1: Multiple hypopigmented grouped papules just lateral to the umbilicus in the T8-T10 dermatomes on the right side, corresponding to the site of the previous herpes zoster.

CONCLUSION:

If multiple whitish papular lesions are seen at the site of herpes zoster a differential diagnosis of collagen nevus should be considered.

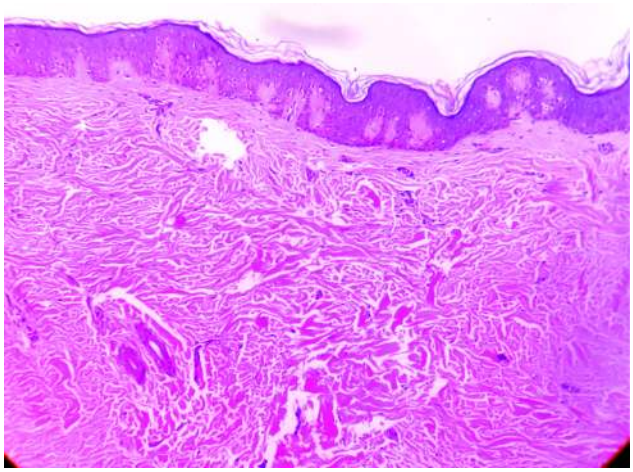

Figure 2: Thick collagen bundles arranged haphazardly with thickened reticular dermis (H & E stain, 10X).

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