WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.084
Volume 12, Issue 19, 1389-1395. Research Article ISSN 2277– 7105

UNDERSTANDING AND MANAGING ATROPHIC SCARRING IN ACNE VULGARIS: INSIGHTS AND AYURVEDIC PERSPECTIVES

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Article Received on
20 Sept. 2023,

Revised on 10 October 2023,
Accepted on 30 October 2023

DOI: 10.20959/wjpr202319-30179

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ABSTRACT

Acne vulgaris is a widespread issue that impacts a significant portion of the population, particularly those between the ages of 11 and 30, often resulting in various degrees of scarring. This article's primary focus lies on atrophic scars, which represent the predominant form of scarring associated with acne. The discussion begins by providing a concise overview of the cellular processes that underlie the formation of scars, as well as the initial assessment of patients afflicted with acne scars. It subsequently delves into an algorithmic strategy for addressing acne scarring, categorizing the scars into erythematous and atrophic types. Lastly, the article delves into the future prospects of treating acne scars, shedding light on ongoing clinical trials in the field.

KEYWORDS:- Acne scarring, Acne vulgaris, Acne.

INTRODUCTION

Acne scars act as persistent reminders of our skin's history, ranging from shallow bumps to deep, stubborn pits that resist fading. Ironically, we are the culprits behind these scars, owing to our irresistible tendency to pop pimples, which becomes a self-inflicted ordeal leading to regret and scarring. Popping pimples disrupts our skin's delicate equilibrium, subjecting it to unnecessary trauma and inflammation, resulting in seemingly permanent blemishes. Pimple popping causes scarring due to its interference with the skin's healing process. Although our

bodies are adept at self-repair, squeezing or picking disrupts this natural mechanism. Inflammation can harm the surrounding tissue and impede collagen production, crucial for maintaining smooth and supple skin. Instead of allowing natural healing, we introduce bacteria and debris, creating an ideal environment for further breakouts and, ultimately, scarring. Nonetheless, there exists a simple two-fold strategy to break free from this seemingly endless cycle - preventing acne scars and treating existing ones. Let's explore both facets and uncover effective remedies for combating this issue.

AIM AND OBJECTIVES

1. To study the concept of Acne scars.
2. To study the methods of *Ayurvedic* and Modern treatment of varicosity

Acne scars

Acne scars are the result of inflammation within the dermal layer of skin brought on by acne. The acne lesions can cause a loss or excess production of collagen, resulting in either a depression or a raised scar. There are several types of acne scars, including:

1. Ice pick scars: These are deep pits that are usually narrow, and they often give the skin a pitted appearance.
2. Boxcar scars: These are broad scars with defined edges, giving the skin a pitted appearance.
3. Rolling scars: These scars are typically broad depressions with rounded edges, giving the skin a wave-like appearance.
4. Hypertrophic scars: These are raised scars that develop due to excess collagen production during the healing process.

Vran vastu

Vrana vastu can be said as scar or a mark that is seen remaining only in broad and deep wounds but not in thin and superficial ones. Further Acharya Sushrutha explains vranavastu [seat of wounds], vranavedana [different kinds of pains of the wounds], vrana varna [colour of wounds] in order to understand vrana as a whole.[1]

Vranavastu's are 8 in numbers. They are twak (skin), mamsa (muscles), sira (veins), snayu (ligaments), asthi (bone), sandhi (joints), koshta (abdominal viscera), marma (vital spots). These 8 seats are the sites where all kind of wounds reside. ¬ Vrana sthana is explained as

Vranavasthu by Susrutha6. There are 8 Sthanas mentioned by Susrutha, Charaka, and Vaghbhata.[2]

Pathogenesis

Acne vulgaris is a localized inflammatory process primarily found in the pilosebaceous units of the face, chest, upper arms, and back.[3] It is believed to occur due to changes in keratinization within these units, leading to the formation of comedones, increased production of sebum, the growth of Propionibacterium acnes (P. acnes), and the development of perifollicular inflammation.[4]

The initial inflammatory response persists throughout the life cycle of acne lesions, starting from micro-comedones and progressing to closed comedones, inflammatory lesions, and finally postinflammatory erythema (PIE), post-inflammatory hyperpigmentation (PIH), and scarring.[5] PIE tends to persist in individuals with fair skin, whereas PIH is more commonly observed in individuals with dark skin. Both consequences are visibly apparent and histologically significant forms of inflammation.[6] That might be partly attributed to the gradual breakdown of non-viable P. acnes within the follicle.[7] PIE arises from wound healing-related microvascular dilatation, resulting in general redness without visible telangiectasia, which is worsened by repair-related thinning of the epidermis.[8]

Acne mainly affects the face in most cases, and many patients endure some degree of scarring, with the severity of scarring corresponding to the grade of acne.[9] Altered wound healing responses to cutaneous inflammation contribute to the development of acne scars, with 77 percent of atrophic scars showing infiltrates of inflammatory cells.[10] Different P. acnes phylotypes activate epidermal innate immunity differently, which contributes to variations in the severity of acne.[11] Patients who are not prone to scarring tend to exhibit a robust, nonspecific immune response in early lesions, which subsides as the lesions resolve.[12] On the other hand, in patients prone to scarring, early lesions are characterized by a lower count of skin-homing CD4+ T-cells in comparison to non-scarring patients, and this response becomes more active as the lesions resolve.[13]

Case presentation

A 36-year female patient came to Twaksharir OPD (OPD NO -9451) of Dhanwantari Ayurveda Medical hospital, Ujjain on 05/04/2023 with complaints of Acne scars. She has taken treatment of modern medicine and homeopathy and was getting temporary relief, due to

the recurrence of the symptoms, she approaches here for further treatment on examination, multiple bands of scare tissue that form under the skin, giving the surface of the skin a rolling and uneven appearance. Round and oval depressions, or craters, in the skin According to the clinical features, the patient was diagnosed with a case of Vranvastu.

Table 1: Abhyantarachikitsa.

Sr. No.	Drug	Dose	Anupan
1	Panchtikatagrita	2spoon in morning	Luke warm milk
2	Satavarichurna Surnjanpatrachurna Til beejchurna Agastya puspachurna	500 mg Twice daily after the food	Water
3	Arogyavardhani Vati	2 Tab Twice daily after the food	Water

Table 2: Bahya chikitsa.

Sr. No.	Drug	Use	Duration
1	Kumkumadi tail	Local application Twice a day	3 Month
2	High frequency	Procedure Once in a week	3 Month

RESULT

Before Treatment

After Treatment

High frequency

DISCUSSION

Ayurvedic remedies like Kumkumadi oil and PanchtiktaGrita are revered for their potential to address acne scars. Kumkumadi oil's anti-inflammatory and antioxidant properties nourish the skin, while PanchtiktaGrita's detoxifying elements rejuvenate it. Arogyavardhanivati's holistic approach in balancing doshas (Vata, Pitta, and Kapha) aids skin health by improving digestion and metabolism[14], promoting a healthy lifestyle. High-frequency treatments are lauded for enhancing skin texture, tone, and collagen production, potentially aiding in the reduction of acne scars. Despite their potential benefits, consulting professionals before integrating these remedies is crucial, considering individual variations in skin type and health conditions. A personalized approach ensures the safe and effective use of Ayurvedic treatments and advanced skincare procedures, fostering sustainable results.

CONCLUSION

In conclusion, acne vulgaris is a prevalent condition that affects a significant portion of the population, especially individuals aged 11 to 30, often leading to various types of scarring. This article has specifically focused on atrophic scars, which are the primary type of scarring associated with acne. The discussion began with an overview of the cellular processes underlying scar formation, followed by an initial patient assessment for those suffering from acne scars. The article then presented an algorithmic strategy for addressing acne scarring, categorizing the scars into erythematous and atrophic types. Furthermore, it discussed future prospects for treating acne scars, highlighting ongoing clinical trials in the field. The discussion emphasized the use of Ayurvedic remedies, including PanchtiktaGrita, Arogyavardhani Vati, and Kumkumadi Tail, along with high-frequency procedures, to address acne scars effectively. These Ayurvedic treatments were lauded for their potential to nourish the skin, balance doshas, and promote a healthy lifestyle. However, the importance of consulting professionals before integrating these remedies was underscored, considering individual variations in skin type and health conditions.

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