

Mild – Moderate Acne Treatment and Skin Allergic Reaction Treatment Using Aloe vera Emulgel - A Case Study

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Authors' Contributions

1 Conception & Study design, Data Collection & Processing, Data Analysis and/or Interpretation, Drafting of Manuscript.

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ABSTRACT

Purpose: We are presenting a case 1 of 35 year's old female suffered with mild-moderate acne for more than a year and the case 2 study was on a 14 year's old male suffered with some skin allergy on his arms, in order to see the effects of our formulated Aloe vera emulgel in both conditions.

Methodology: In case 1, the acne appeared as a small inflamed bumps with white heads on cheeks and forehead. The patient was given Aloe vera emulgel twice a day at day time only. In case 2, the patient has applied aloe Vera emulgel twice a day.

Results: In case 1, the clear difference in skin acne was noticed after two weeks of treatment and within three months acne disappeared completely. While in case 2, after three days the patient's skin was cleared with no allergy.

Conclusion: The Aloe vera emulgel is helpful in skin nourishment having soothing and emollient effects on affected areas.

Keywords: Aloe vera Emulgel, White heads, Inflamed bumps, Acne, Allergy Treatment.

INTRODUCTION

Acne vulgaris is the most common disease of skin which cause trouble in adolescent and adult life. They may be mild-moderate or even severe. Although many therapeutic medicines are available to treat it, but they cause serious side effects in body so patient have to quit them. Aloe vera is used from many years as a natural remedy to treat acne because it contains 75 active ingredients and most of them are very effective against acne and inflammation on any area of skin e.g. it consists of vitamins, minerals and hormones [1, 2]. It is hydrophilic in nature so very effective to use for oily skin which is more prone to acne. In present case study 1(for acne), Patient was diagnosed with small bumps on some area of face. Psychologically, it is very frustrating situation for a person to cope this disease. She already used many medicines like oral doxycycline, salicylic acid gels and

isotretinoin. But it only proved as a temporary treatment. This report highlights the use of Aloe vera emulgel using some essential oils like rose oil, lemon oil and olive oil twice a day.

In second case study (for allergy), patient was kept under observation due to itching and inflammation on his arm. There is a small red bumps on all of his arm. He was given this Aloe vera emulgel to use on that area twice a day.

Case Report 1

Thirty-five (35) years' young female, living in upper Punjab (Lahore) presented with complaints of mild – moderate acne on her face especially on her cheeks. There was history of using many allopathic treatments containing oral antibiotics, salicylic acid gels and topical isotretinoin but none was considered best for acne. The hematological tests i.e. CBC, thyroid profile and androgens activity were done before starting the

treatment, showed that all tests were cleared and there was no interaction of existing acne with hormones.

So the patient was advised to apply the Aloe vera emulgel (small amount) over affected areas of the face twice a day after the written agreement from her and her guardian. She was also advised to avoid from dairy foods during treatment because they can

aggravate the symptoms due to overproduction of sebum. More over the use of any sunscreen was mandatory. Photographs of her face were taken at first day (Figure 1). Patient has continued to use transdermal emulgel. It was observed that skin acne started improving by the first week and completely improved by three months.

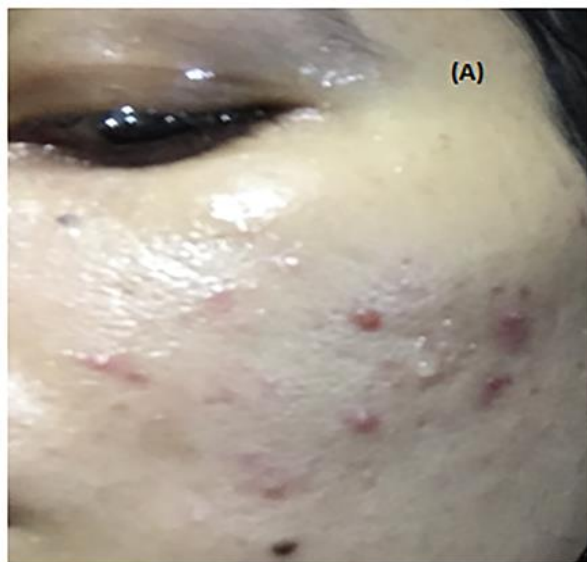


Figure 1. The photographs of mild-moderate acne have shown in Figure 1. In Figure 1 (A), before treatment, the patient complained the acne with pus. In Figure 1 (B), after 3 months of treatment with Aloe vera emulgel, acne problem resolved completely.

Case Report 2

Fourteen-year male, living in southern Punjab (Multan) complained itching and inflammation. It might be due to some insect bite or else. He was

given aloe vera emulgel to apply on that area twice a day and cover it with some muslin cloth. By the first day, skin inflammation reduced 50% and completely resolved after three days (Figure 2).

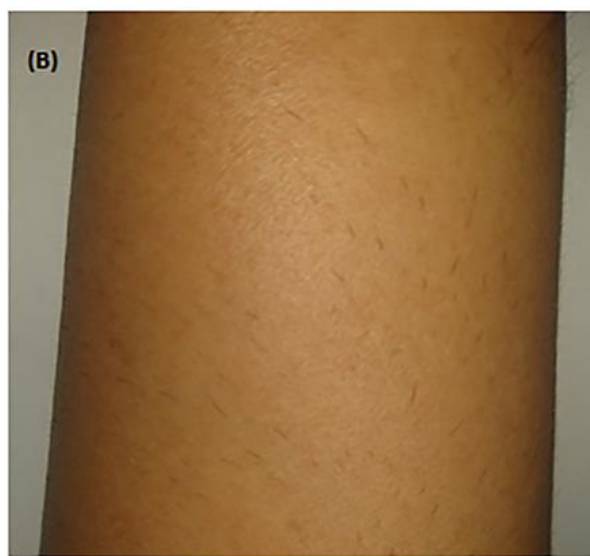
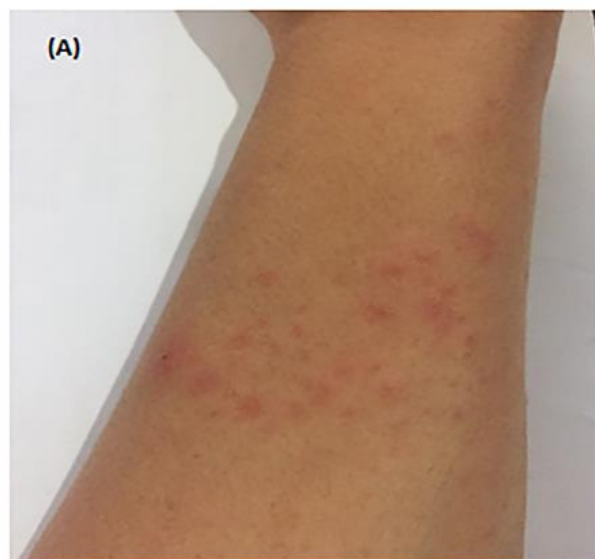


Figure 2. Photographs of allergic patient (A) before treatment (B) after 3 days of treatment.

DISCUSSION

Mostly the acne effects in teen age but they can also occur after 30's. without any underlying cause, it is more easy to treat acne vulgaris. Many medicine are available to deal with acne but their results are temporary with lot of side effects.

The patient was treated with Aloe vera emulgel and it was seen that emulgel helped to reduce the flare of acne. As Aloe vera emulgel contains the olive oil, rose oil and lemon oil [3] also that deeply penetrates into skin and provides cleansing and smoothing effect over the skin [4]. It has also moisturizing property that protect the skin from over dry which is not good for acne prone skin. Olive oil has antioxidant [5, 6] and anti-bacterial property that helpful in fighting against inflammatory cells to reduce inflammation. [7-9] Rose oil and lemon oil has cleansing action and clears the pores from inflammatory bacteria [10-12]. Propylene glycol, another ingredient in Aloe vera emulgel, used as humectant solvent. It is non-irritant to skin and aids deeply penetration of drug into skin [13].

In summary, the Aloe vera emulgel formulation is rich in anti-inflammatory, anti-acne, anti-oxidant, non-irritant and deeply penetrating enhancers that help the skin nourishment to turn into normal position with soothing and emollient effects.

CONCLUSION

The current Aloe vera emulgel formulation due to its anti-inflammatory, anti-acne, anti-oxidant, non-irritant and deeply penetrating properties helps the skin nourishment to turn into normal position with soothing and emollient effects after use on affected area twice a day.

Approval by Ethical Committee

The approval for *Ex-Vivo* studies in animals and human were taken from the "Ethical Committee" of Faculty of Pharmacy, B.Z. University Multan under the reference number 184/PEC/2019.

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