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Original Research Paper

Dermatology

EFFICACY OF JESSNER'S PEEL IN ACNE VULGARIS

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ABSTRACT

Background: Antibiotics and retinoids have been used for acne vulgaris for decades. Though effective, each has its own drawbacks. Chemical peels have been used for treatment of acne vulgaris with inadequate clinical evidence. We sought to determine the efficacy and safety of Jessner's solution in the management of acne vulgaris and post-acne hyperpigmentation in Indian patients. **Methods:** A total of 40 subjects with Fitzpatrick III-IV lesions were treated once fortnightly for a total of three sessions. Lesion counting, Michaelsson acne score (MAS), photographs, and post-acne hyperpigmentation index (PAHPI) were used to objectively assess the improvement. Complications were assessed during each visit. Statistical analysis was conducted using SPSS v22.0. Significance was set at P = 0.05. **Result:** At the end of therapy, significant reduction in inflammatory, non-inflammatory lesions, MAS, and PAHPI scores (P < 0.001, respectively) were noted in comparison to baseline. Patients who reported good and very good outcome were 78% and 82%> Burning, stinging sensation, and exfoliation were the common complications reported. Post- inflammatory hyperpigmentation was reported in one case. **Conclusion:** Jessner's solution is effective in the treatment of acne vulgaris and reducing post acne hyperpigmentation in patients with Indian brown skin.

KEYWORDS :

INTRODUCTION

Antibiotics and retinoids have been used for acne vulgaris for decades. Though effective, each has its own drawbacks.

Chemical peels have been used for treatment of acne vulgaris with inadequate clinical evidence.

Chemical peeling is a widely used procedure in the management of acne and acne scars, but the risk of hyperpigmentation is more in the Indian Skin as they are more prone to developing hyper pigmentation.[4]

About Jessner's Solution

Jessner's solution is a topical chemical peel widely used in dermatology for various skin conditions, particularly acne vulgaris, hyperpigmentation, and signs of photoaging. Named after Dr. Max Jessner, who formulated it, this solution is notable for its effectiveness and versatility.

Composition and Mechanism of Action: Jessner's solution typically consists of three key ingredients:

Resorcinol (14 g): A phenolic compound known for its antiseptic and keratolytic properties. It helps in exfoliating the skin by breaking down the bonds between dead skin cells, promoting the turnover of the epidermis.

METHODOLOGY

A total of 40 subjects with Fitzpatrick III-IV lesions were treated once fortnightly for a total of three sessions.

Lesion counting, Michaelsson acne score (MAS), photographs, and post-acne hyperpigmentation index (PAHPI) were used to objectively assess the improvement. Complications were assessed during each visit.

Statistical analysis was conducted using SPSS v22.0.

Significance was set at P = 0.05.

Inclusion Criteria

All consenting with Acne Vulgaris were included in the study.

Exclusion Criteria

The following patients were excluded from our study:

- Patients on isotretinoin.
- Patients with a history of hypertrophic/keloid scar formation.
- Pregnant women and patients with heart disease.

The patients were primed for 2 weeks with tretinoin cream 0.05% before the start of peeling sessions and the priming agent was stopped 2 days prior to the chemical peeling.

RESULTS

At the end of therapy, significant reduction in inflammatory, non-inflammatory lesions, MAS, and PAHPI scores (P < 0.001, respectively) were noted in comparison to baseline.

Patients who reported good and very good outcome were 78% and 82%> Burning, stinging sensation, and exfoliation were the common complications reported. Post-inflammatory hyperpigmentation was reported in one case.

Fig 1.1

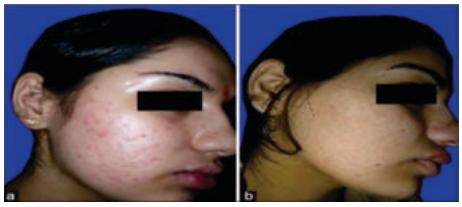

Fig 1.2

Fig 1.1 & 1.2 shows the pre and post procedural pictures of the

patients who were treated with Jessners Peel every fortnightly for 4 sessions.

Fig 1.3

outcomes	pre	post	p value
number of lesion	8.32	4.36	<0.001
MAS	138.31	78.43	
PAHPI	20.42	10.34	

Fig 1.3 shows the table comparing the Pre and post procedure lesion count using the MAS (Michaelsson Acne Score) and PAHPI (Post Acne Hyperpigmentation Index)
where P value is <0.001.

DISCUSSION

Jessner's peel is a superficial chemical peel, resulting in destruction of part or all of the epidermis with keratolytic activity. Jessner's solution includes 14 g of resorcinol, 14 g of salicylic acid, and 14 mL of lactic acid (85%), and add sufficient quantity to 100 mL ethyl alcohol (95%).

It is mainly recommended for treatment of photoaging (fine lines, actinic keratosis, solar lentigines), pigmentary disorders (melasma, post-inflammatory), and acne. Jessner's solution can be used on all Fitzpatrick skin types, no sedation is needed, and desquamation is usually well accepted. Overpeel and complication are very rare.

Dayal et al, conducted a study which showed that 30% SA peels were more effective than JS peels in treatment of noninflammatory lesions, that is, comedones and in overall improvement of mild-to-moderate facial acne vulgaris.

CONCLUSION

Jessner solution is effective in reducing acne scars and hyperpigmentation, with overall good patient satisfaction. This Could be an alternative to TCA and Salicylic acid.

REFERENCES

1. Strauss JS, Krowchuk DP, Leyden JJ, Lucky AW, Shalita AR, Siegfried EC, et al. Guidelines of care for acne vulgaris management. J Am Acad Dermatol. 2007;56:651–63.
2. Handog EB, Macarayo MJ, Gabriel MT. Acne scars in Asian patients. In: Tosti A, De Padova M, Beer K, editors. Acne Scars: Classification and Treatment (Series in Dermatological Treatment) 1st ed. UK: Informa Healthcare; 2009. p. 90.
3. Goodman G. Treatment of acne scarring. Int J Dermatol. 2011;50:1179–94.
4. Al-Waiz MM, Al-Sharqi AI. Medium-depth chemical peels in the treatment of acne scars in dark-skinned individuals. Dermatol Surg. 2002;28:383–7.
5. Monheit GD. The Jessner's-trichloroacetic acid peel. An enhanced medium-depth chemical peel. Dermatol Clin. 1995;13:277–83.
6. Taub AF. Procedural treatments for acne vulgaris. Dermatol Surg. 2007;39:1005–26.
7. Baumann L, Saghari S. Chemical Peels. In: Baumann L, editor. Cosmetic Dermatology. 2nd ed. New York: McGraw-Hill; 2002. pp. 148–60.
8. Rubin MG. 1st ed. Philadelphia, PA: JB. Lippincott Company; 1995. Manual of Chemical Peels. Superficial and Medium Depth; p. 111. 2010;3:93–6.
9. Branham GH, Thomas JR. Rejuvenation of the skin surface: Chemical peel and dermabrasion. Facial Plast Surg. 1996;12:125–33.
10. Monheit GD, Chastain MA. Chemical peels. Facial Plast Surg Clin North Am. 2001;9:239–55. viii.
11. Brody HJ, Hailey CW. Medium-depth chemical peeling of the skin: A variation of superficial chemosurgery. J Dermatol Surg Oncol. 1986;12:1268–75.
12. Coleman WP, 3rd, Brody HJ. Advances in chemical peeling. Dermatol Clin. 1997;15:19–26.
13. Landau M. Chemical peels. Clin Dermatol. 2008;26:200–8.
14. Monheit GD. Medium-depth chemical peels. Dermatol Clin. 2001;19:413–25. vii.
15. Bhardwaj D, Khunger N. An assessment of the efficacy and safety of CROSS Technique with 100% TCA in the management of ice pick acne scars. J Cutan Aesthet Surg. 2010;3:93–6.