

## Original Research Article

# A multicentric, prospective, observational study evaluating the use patterns of Sebium night peel for acne-prone skin and associated conditions

Aseem Sharma<sup>1\*</sup>, Manish Gautam<sup>2</sup>, Kiran Godse<sup>3</sup>, Richa Sharma<sup>4</sup>,  
Padmavathi Surapaneni<sup>5</sup>, Manjul Agrawal<sup>6</sup>

<sup>1</sup>Skin Saga Centre for Dermatology, Mumbai, Maharashtra, India

<sup>2</sup>Skin Solutions, Navi Mumbai, Maharashtra

<sup>3</sup>Department of Dermatology, D.Y. Patil Hospital, Navi Mumbai, Maharashtra, India

<sup>4</sup>Twacha Skin Clinic, New Delhi, India

<sup>5</sup>Pragna Hospital, Hyderabad, Telangana, India

<sup>6</sup>Dr. Manjul Agrawal Skin Clinic, New Delhi, India

**Received:** 11 June 2023

**Revised:** 10 July 2023

**Accepted:** 19 July 2023

### \*Correspondence:

Dr. Aseem Sharma,

E-mail: [atjournsnp@gmail.com](mailto:atjournsnp@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## ABSTRACT

**Background:** Acne is a common skin disorder that affects both adolescents and adults and is categorized as an inflammatory dermatosis. Persistent adult acne is prevalent in more than 80% of cases. Chemical peels are widely used in acne therapy due to their various benefits, including exfoliation, acne lesion reduction, complexion radiance improvement, and scar repair. The procedure, consisting of 2 to 8 sessions, is ideal for adult women with oily skin, acne breakouts, and concerns about photoaging and complexion radiance.

**Methods:** A cohort of Indian dermatologists were provided a questionnaire related to the quantum of weekly acne patients seen and their clinical expertise regarding the use of Sebium Night Peel containing 15% glycolic acid, the Fluidactiv™ patented complex & D-panthenol. These results were later analyzed using a standardised visual analogue scale.

**Results:** The study enrolled 826 patients, and complete responses were received from 73 dermatologists practicing clinical and aesthetic dermatology across major cities in India. The study revealed that 97% of dermatologists would recommend the Sebium Night Peel as a chemical peel for patients with acne and acne-related complications. The majority of dermatologists rated the peel's tolerability and safety as "good" across various evaluation criteria. Additionally, 97% of dermatologists reported no safety concerns associated with the Sebium Night Peel.

**Conclusions:** This study establishes the Sebium Night Peel as a preferred and effective chemical peel for managing acne-prone skin and associated conditions, as endorsed by dermatologists across India.

**Keywords:** Acne, Acne-related sequelae, Chemical peeling agent, Study, Sebium night peel

## INTRODUCTION

The most prevalent skin condition affecting young adults and adolescents is acne vulgaris.<sup>1,2</sup> Its lifetime prevalence

is approximately 80%.<sup>3,4</sup> Propionibacterium acnes colonisation, inflammation, enhanced keratinocyte proliferation in the follicular infundibulum, and hypersensitive sebaceous glands to androgens are some of

the elements involved in the pathogenesis of acne.<sup>5</sup> While being typically seen as moderate, this condition places a significant economic and psychological burden on society. Acne, on its own is devastating, and acne-related sequelae can be equally devastating. A significant quality of life reduction is seen in these patients owing to psychosocial effects-low self-esteem, anxiety and depression.<sup>6</sup> Consequently, early intervention to lessen the physical and aesthetic burden of the condition, as well as enhancement of quality of life, should be the major objectives of treatment. A combination of topical therapy, systemic medications, chemical peels, dermabrasion, and lasers are used to treat acne.<sup>7</sup>

Chemical peeling is one of the most frequently performed cosmetic procedures for this condition. It is described as the application of chemical substances to the skin in various concentration that causes the controlled exfoliation of the epidermis and dermis.<sup>8</sup> Following the stimulated exfoliation, neighbouring epithelium and skin adnexa regenerate the dermis and epidermis, improving the skin's surface texture and appearance. This is a straightforward and inexpensive technique with a variety of dermatological applications.<sup>9,10</sup>

Chemical peels are divided into superficial, medium and deep-epidermis-papillary dermis, papillary to upper reticular dermis, and mid-reticular dermis, respectively, based on their depth of action and penetration. Superficial peels target cutaneous effects such as acne, dyschromia, melasma, postinflammatory hyperpigmentation and actinic keratosis.<sup>11,12</sup> Medium depth peels are used to treat superficial pigmentary disorders, mild scars and solar keratoses. For precancerous skin lesions, deep scars or wrinkles, and photoaging, deep peels are employed.

Dermatologists are increasingly using superficial and medium depth chemical peels to treat acne vulgaris. Their chemical composition specifically targets its many pathological components. These relatively inexpensive procedures are backed by good safety and efficacy data.<sup>13</sup>

### **Objectives**

The objective of this study was to collect information regarding epidemiology of acne-prone skin & associated conditions in Indian population and the role of chemical peeling agent Sebium night peel in these patients. The assimilated data helped gain deeper insights and affirmations on the efficacy and safety of Sebium Night Peel for these indications.

### **METHODS**

In this prospective, multicentric, observational, questionnaire-based study, a total of 73 practicing dermatologists in private healthcare sector from major cities of India (Mumbai, Ahmedabad, Delhi, Pune, Bangalore, Chennai, Hyderabad, Nagpur) were contacted between June 2022 to November 2022 for their willingness

to participate in the study. Those who were unwilling to participate were excluded from the study.

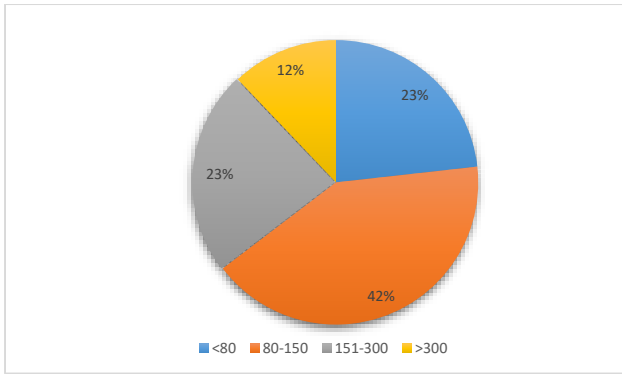
Convenience sampling was used for recruitment of participants. The sample size of the study included a total of 826 patients. The questionnaire aimed at evaluating their clinical experience regarding epidemiology of acne-prone skin & associated conditions in Indian population and the role of chemical peeling agent – Sebium night peel in these patients.

Sebium night peel is a gentle, home-based peel for use in combination-to-oily skin with acne and pigmentary sequelae, thereof. It contains 15% Glycolic acid, which provides it with its peeling action. This alphahydroxy acid (AHA) acid is naturally present in fruit, especially sugarcane, and is frequently used by dermatologists for chemical exfoliation due to its high efficacy and tolerance. It has a surface keratolytic action, thereby reducing acne-related sequelae and scarring while restoring skin radiance by promoting cell renewal and differentiation. It also contains the exclusive Fluidactiv™ patented complex. This component biologically regulates sebum quality, keeping pilosebaceous units from becoming congested/occluded and limits the formation of postinflammatory hyperpigmentation and other dyschromias. Another component, the D-Panthenol offers soothing properties.

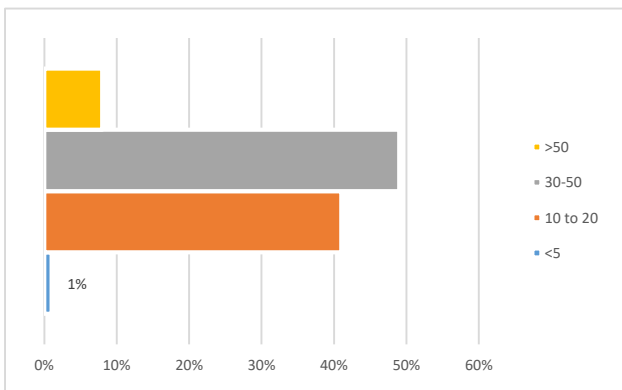
The questionnaire covered the following - number of patients with acne and acne-related sequelae seen every week, the use of Sebium night peel as a chemical peel in these patients, its efficacy, tolerability and safety for reducing acne and acne-related sequelae, and its role in skin resurfacing. Acne-related sequelae was defined as acne-related dyspigmentation (hyperpigmentation and/or erythema) and mild atrophic scarring or a surface textural change for this study by the authors. The results of Sebium night peel were analyzed using an ordinal scale which ranged from excellent, good, fair and poor. Descriptive statistics were used to present frequencies and percentages. The final statistical analysis of the parameters was carried out by pooling the data obtained. The graphs presented here were prepared using Microsoft Excel 2010.

### **RESULTS**

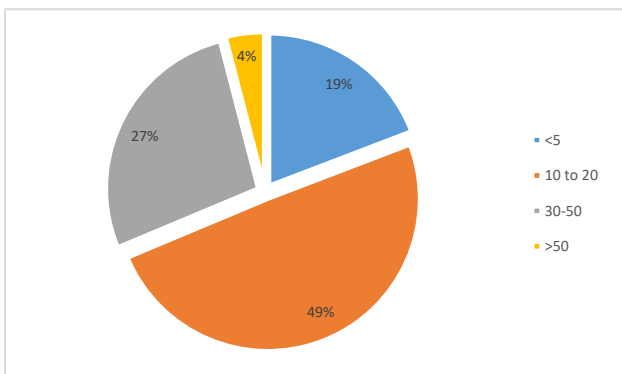
In this study, 73 doctors practicing with a declared dermatology and cosmetology practice in metropolitan cities included 826 patients. Among these, 767 patients (93%) received Sebium Night Peel. On an average, each of these dermatologists prescribed 10 patients Sebium Night Peel. It was observed that 23% dermatologists see less than 80 patients per week, 41% of the dermatologists see 80-150 patients per week, 23% dermatologists see 151-300 patients each week, and 12% dermatologists see more than 300 patients per week (Figure 1). The majority (49%) of the dermatologists opined that 30 to 50% of the patients present with complaints of acne and acne-related sequelae. (Figure 2).



**Figure 1: Percentage of overall patients seen by dermatologists per week.**



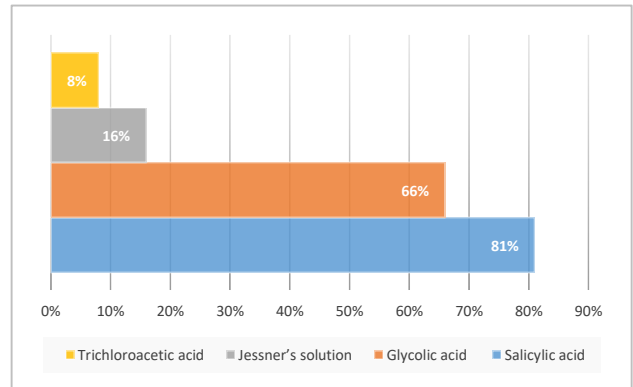
**Figure 2: Percentage of patients presenting with complaint of acne and acne-related sequelae.**



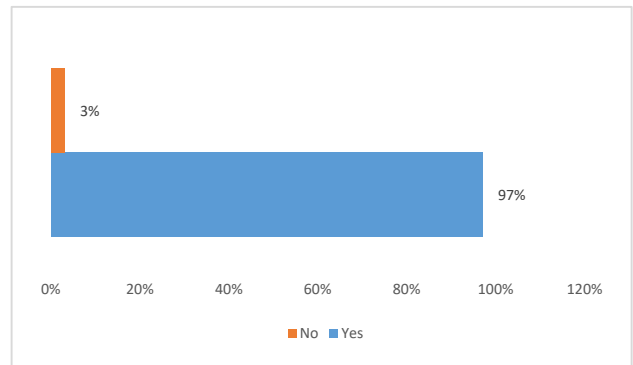
**Figure 3: Percentage of dermatologists recommending chemical peels for acne and acne-related sequelae.**

Among these, majority (49%) of the dermatologists opined that they would prescribe chemical peel to 10 to 12 patients presenting with acne and acne-related sequelae (Figure 3). Also, majority (81%) of the dermatologists prefer salicylic acid as a chemical peeling agent, 66% prefer glycolic acid, 16% prefer Jessner’s solution whereas 8% prefer trichloroacetic acid. (Figure 4). In addition, 97% dermatologists opined that they would recommend Sebum night peel in these patients (Figure 5). The majority (54%) of the dermatologists opined that they would recommend Sebum night peel as a peeling

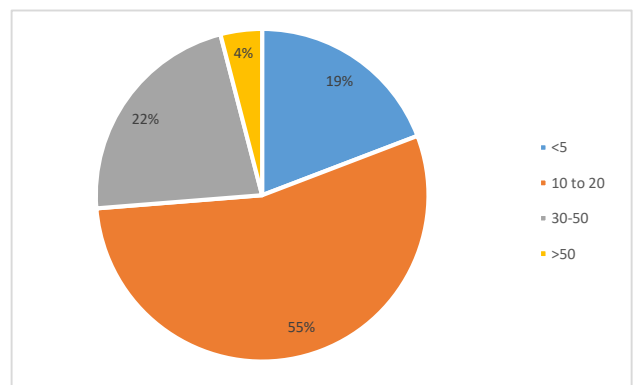
agent to 10 to 20 patients presenting with acne and acne-related sequelae (Figure 6).



**Figure 4: Preferred chemical peels by dermatologists in these patients.**

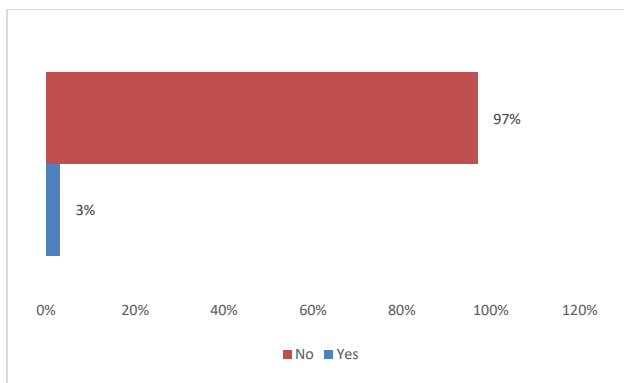


**Figure 5: Percentage of dermatologists recommending Sebum night peel in these patients.**



**Figure 6: Percentage of patients recommended Sebum night peel as a peeling agent by dermatologists.**

In terms of efficacy of Sebum night peel for reducing acne and acne-related sequelae after 28 days of usage, 67% of the dermatologists opined as “good”, 22% dermatologists opined as “excellent”, 8% dermatologists opined as “fair” whereas only 3% dermatologists opined as “poor” (Table 1).



**Figure 7: Percentage of patients with safety issues with Sebiuim night peel.**

**Table 1: Global assessment by dermatologists regarding efficacy and safety of Sebiuim night peel.**

Parameter	Excellent (%)	Good (%)	Fair (%)	Poor (%)
<b>Efficacy for reducing acne and acne-related sequelae after 28 days of usage</b>	22	67	8	3
<b>Efficacy for smoothening the skin texture after 28 days of usage</b>	36	58	5	1
<b>Tolerability and safety</b>	40	49	11	0

In terms of efficacy of Sebiuim night peel for smoothening the skin texture after 28 days of usage, 58% of the dermatologists opined as “good”, 36% dermatologists opined as “excellent”, 5% dermatologists opined as “fair” whereas 1% opined as “poor” (Table 1). In terms tolerability and safety of Sebiuim Night Peel, 49% of the dermatologists opined as “good”, 40% dermatologists opined as “excellent”, 11% dermatologists opined as “fair” whereas none of them opined as “poor” (Table 1). Moreover, 97% of the dermatologists reported no issue, with regards to safety, with Sebiuim Night Peel. The remainder found mild dryness, irritation, redness or papules in their patients.

**DISCUSSION**

In this questionnaire-based opinion study, we got information regarding epidemiology of patients presenting with acne and acne-related sequelae seen every week, use of Sebiuim night peel as a chemical peel in these patients, its efficacy, tolerability and safety for reducing acne and acne-related sequelae.

Superficial chemical peels are commonly used as adjunctive therapy in the management of acne.<sup>14,15</sup> They

are typically incorporated alongside primary therapies like retinoids and antibiotics, whether administered topically or systemically. The inclusion of chemical peels in the treatment regimen is favoured due to their ability to rapidly reduce the number of acne lesions and enhance the overall texture of the skin.<sup>16</sup> Through a series of chemical peels, notable improvements can be achieved within a short timeframe, resulting in high patient satisfaction and sustained clinical outcomes.<sup>17</sup> Glycolic acid chemical peels have been recognized as a highly effective treatment for various forms of acne, offering swift improvement and the restoration of a healthy and visually appealing complexion.<sup>18</sup> Topical dexpanthenol functions as a moisturizer, effectively enhancing the hydration of the stratum corneum. It also helps in reducing transepidermal water loss and promotes the retention of softness and elasticity in the skin.<sup>19</sup> The Fluidactiv® patent is a combination of active ingredients with strong anti-oxidant properties (mannitol + propyl gallate) which prevents sebum from oxidising. Mannitol possesses dual properties of hydration and antioxidation, making it a versatile compound in terms of its benefits.<sup>20</sup> The majority of dermatologists who participated in this study rated efficacy and safety of Sebiuim night peel as “good”.

**Limitations**

Current study had some limitations. Primarily, although every efforts were made to gather the responses from dermatologists all over India, the selection of participants was performed by a convenient method of sampling. Secondly, the sample size was small. In view of these limitations, care needs to be taken while inferring the results of this study. Future controlled trials will define the clinical potential and position of Sebiuim night peel in a holistic management strategy for acne-prone skin and associated conditions.

**CONCLUSION**

In conclusion, the study demonstrated that according to dermatologists across India, acne is a significant dermatological problem found especially in the young adolescents. It was demonstrated that Sebiuim night peel is a preferred chemical peeling agent recommended by dermatologists across India for the management of acne-prone skin & associated conditions with proven efficacy and safety.

**ACKNOWLEDGEMENTS**

We would like to thank Dr. Abhinav Singh, Dr. Ajay Sharma, Dr. Akhila Reddy, Dr. Ami Shah, Dr. Aneesh S, Dr. Anu Jain, Dr. Anupama M P, Dr. Arti Shah, Dr. Ashwin Rao, Dr. Bharat Singhanian, Dr. Bharat Tank, Dr. Chandan K S, Dr. Chitra Lekhya, Dr. Deepam Shah, Dr. Dimple Bhankaria, Dr. Divyasree, Dr. Dolly Gupra, Dr. Harsha S, Dr. Ismail Shaikh, Dr. Jyothi, Dr. Kaberi Som, Dr. Karuna Soni, Dr. Kavita Chablani, Dr. Kinjal

Rambhia, Dr. Kiran Godse, Dr. Kshama Bingewar Dr. Latika Arya, Dr. Monica Bambroo, Dr. Manish Gautam, Dr. Manju Keshari, Dr. Manjul Agarwal, Dr. Mansukh Gala, Dr. Mona Sogani, Dr. Namrata Singh, Dr. Naveen Taneja, Dr. Nidhi Jindal, Dr. Nikita Patel, Dr. Nilesh Goyal, Dr. Nishant Makhija, Dr. Paramjit Walia, Dr. Rahul Arora, Dr. Raina Nahar, Dr. Ramanjit Singh, Dr. Ravi Kothari, Dr. Reema Arora, Dr. Renu Nair, Dr. Richa Sanmukhani, Dr. Richa Sharma, Dr. Ritu Gupta, Dr. Ritupurna Dash, Dr. Roma Pandhi, Dr. Roopam Gangurde, Dr. Rosery Reyan, Dr. Sachin Verma, Dr. Sakina Rangwala, Dr. Sanjay Sakarwal, Dr. Sanjib Chowdhuri, Dr. Saroj Rai, Dr. Sashidhar T, Dr. Sharmila Nayak, Dr. Shilpa R K, Dr. Shobha S Raju, Dr. Shreyansh Talesra, Dr. Sriteja, Dr. Sruthi C, Dr. Sudheendra Udbalkar, Dr. Sujaya S N, Dr. Sukrita Sharma, Dr. Umesh Jain, Dr. Vaishali Phadke, Dr. Vivek Nair, Dr. Vivek Rungta, Dr. Yogesh Bhingradiya for participating in this study.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

## REFERENCES

- Bickers DR, Lim HW, Margolis D. The burden of skin diseases: 2004 a joint project of the American Academy of Dermatology Association and the Society for Investigative Dermatology. *J Am Acad Dermatol.* 2006;55(3):490-500.
- Dayal S, Amrani A, Sahu P, Jain VK. Jessner's solution vs. 30% salicylic acid peels: a comparative study of the efficacy and safety in mild-to-moderate acne vulgaris. *J Cosmet Dermatol.* 2017;16(1):43-51.
- Al-Talib H, Al-Khateeb A, Hameed A, Murugaiah C. Efficacy and safety of superficial chemical peeling in treatment of active acne vulgaris. *An Bras Dermatol.* 2017;92(2):212-6.
- Gollnick H. Current concepts of the pathogenesis of acne: implications for drug treatment. *Drugs.* 2003; 63(15):1579-96.
- Kurokawa I, Oiso N, Kawada A. Adjuvant alternative treatment with chemical peeling and subsequent iontophoresis for postinflammatory hyperpigmentation, erosion with inflamed red papules and non-inflamed atrophic scars in acne vulgaris. *J Dermatol.* 2017;44(4):401-5.
- Hosthota A, Bondade S, Basavaraja V. Impact of acne vulgaris on quality of life and self-esteem. *Cutis.* 2016;98(2):121-4
- Castillo DE, Keri JE. Chemical peels in the treatment of acne: patient selection and perspectives. *Clin Cosmet Invest Dermatol.* 2018:365-72.
- Singh-Behl D, Tung R. Chemical peels. In: Alam M, Tung R, Gladstone H, eds. *Cosmetic Dermatology.* USA: Saunders Elsevier; 2009.
- Clark E, Scerri L. Superficial and medium-depth chemical peels. *Clin Dermatol.* 2008;26(2):209-18.
- Tse Y. Choosing the correct peel for the appropriate patient. In: Tung R, Rubin M, eds. *Procedures in Cosmetic Dermatology Series: Chemical Peels.* 2nd ed. London: Elsevier Health Sciences; 2010:17-21.
- Rendon MI, Berson DS, Cohen JL. Evidence and considerations in the application of chemical peels in skin disorders and esthetic resurfacing. *J Clin Aesthet Dermatol.* 2010;3(7):32-43.
- Costa IM, Damasceno PS, Costa MC, Gomes KG. Review in peeling complications. *J Cosmet Dermatol.* 2017;16(3):319-26.
- Kontochristopoulos G, Platsidaki E. Chemical peels in active acne and acne scars. *Clin Dermatol.* 2017;35(2):179-82.
- Kessler E, Flanagan K, Chia C, Rogers C, Glaser DA. Comparison of alpha- and beta-hydroxy acid chemical peels in the treatment of mild to moderately severe facial acne vulgaris. *Dermatol Surg.* 2008;34:45-50.
- Taub AF. Procedural treatments for acne vulgaris. *Dermatol Surg.* 2007;33:1005-26.
- Kim SW, Moon SE, Kim JA, Eun HC. Glycolic acid versus Jessner's solution: Which is better for facial acne patients? A randomized prospective clinical trial of split-face model therapy. *Dermatol Surg.* 1999;25: 270-3.
- Baumann L, Saghari S. Chemical Peels. In: Baumann L, editor. *Cosmetic Dermatology.* 2nd ed. New York: McGraw-Hill; 2002:48-60
- Fabbrocini G, De Padova MP, Tosti A. Glycolic Acid. *Color Atlas of Chemical Peels.* Heidelberg: Springer; 2002.
- Ebner F, Heller A, Rippke F, Tausch I. Topical use of dexpanthenol in skin disorders. *Am J Clin Dermatol.* 2002;3(6):427-33.
- André P, Villain F. Free radical scavenging properties of mannitol and its role as a constituent of hyaluronic acid fillers: a literature review. *Int J Cosmet Sci.* 2017;39(4):355-60.

**Cite this article as** Sharma A, Gautam M, Godse K, Sharma R, Surapaneni P, Agrawal M. A multicentric, prospective, observational study evaluating the use patterns of Sebium night peel for acne-prone skin and associated conditions. *Int J Res Dermatol* 2023;9:246-50.