



DOCTOR'S CORNER

Dr. Ramesh Bhat M

MBBS, DVD, MD, DNB

Professor of Dermatology and Head of Research

Father Muller Research Centre.

Mangalore



TO VIEW THE
**PREVIOUS
ISSUES,**
SCAN THE
QR CODE.

Introduction

Acne vulgaris is one of the most common dermatologic conditions worldwide, with a rising global prevalence. The Global Burden of Disease (GBD) study reports that it affects around 85% of individuals aged 12–25 years. Recent data also indicate that over 3.5 million new cases are diagnosed each year.¹ In India, acne predominantly affects individuals aged 18–25 years, with a significantly higher prevalence in females (81.7%). Common sequelae include facial scarring, post-inflammatory erythema (PIE), and post-inflammatory hyperpigmentation (PIH), which can often be more distressing than the acne itself. Delayed treatment initiation is another key contributor to scarring. As a result, patients with active or unresolved acne

frequently experience psychological distress, including depression and negative body image.²

Numerous topical medications are used to target one or more of the pathogenetic factors contributing to acne vulgaris. **Many topical acne treatments are characterized by keratolytic activity** (e.g., retinoids, benzoyl peroxide, salicylic acid), which can **impair the skin barrier and increase transepidermal water loss (TEWL), thus decreasing skin hydration**. Furthermore, many acne treatments have been associated with skin irritation. The irritant potential of topical acne products and their tolerability are important factors that may affect patient adherence to prescribed therapies in real-world practice.³

Ceramides as an adjunct in the management of acne

Ceramides are natural lipids present in the skin that play a crucial role in maintaining the skin barrier function by retaining moisture and protecting against external factors that may cause irritation. A study demonstrated that creams containing ceramides vs. placebo, facilitate skin barrier restoration and protect the skin from dryness and irritation in patients with dry, eczema-prone skin. Additionally, another study reported that a ceramide- and

niacinamide-containing moisturizer used in combination with anti-acne medication significantly improved acne lesions and reduced cutaneous irritation compared with a hydrophilic cream. Applying external ceramides within moisturizers has demonstrated positive outcomes in reducing lesions, enhancing ceramide composition, and fortifying the skin barrier.⁴

Ceramide-containing moisturizers for acne: Clinical evidence

Efficacy of ceramide–niacinamide moisturizer vs. hydrophilic cream in mild-to-moderate acne with topical therapy⁵

Topical therapy remains the mainstay of acne treatment, with retinoids such as tretinoin, tazarotene, and adapalene as first-line options for mild-to-moderate acne. However, cutaneous irritation may occur, hence dermocosmetics are recommended to reduce the side effects of anti-acne drugs

and improve adherence. Dermatologists often advise using moisturizers like ceramide-containing formulations (CCM) to simulate skin moisturization. Moreover, topical niacinamide helps improve acne through anti-inflammatory effects and reduced sebum production.

Parameter	Description
Design	8-week, randomized, double-blind, split-face study with 40 acne patients.
Intervention	- Topical therapy (all patients): 5% benzoyl peroxide + 0.1% adapalene - Patients randomized to either apply CCM or hydrophilic cream on each side of the face
Assessment	Patients were followed at weeks 0, 2, 4 and 8 for improvement in acne, adverse effects, biometric, and biophysical evaluation.

CCM: Ceramide-containing formulations.

- CCM significantly improved the non-inflammatory ($p=0.022$), inflammatory ($p=0.002$), and total acne lesions ($p=0.008$) compared with hydrophilic cream after week 8 of treatment.
- Interestingly, there was an improvement in the global worst score, hemoglobin index, melanin index, TEWL,

skin hydration, sebum production, and skin surface pH, with no statistically significant differences between the two treatments.

- No serious side effects were seen with clinical application of CCM and hydrophilic cream in mild-to-moderate acne vulgaris patients.

Ceramide and niacinamide-containing moisturizer in combination with anti-acne medication can significantly improve acne lesions and decrease cutaneous irritations toward a satisfactory treatment outcome of mild-to-moderate acne vulgaris.

References: 1. Gugulus DL, Văță D, Popescu IA, et al. The epidemiology of acne in the current era: Trends and clinical implications. *Cosmetics*. 2025;12(3):106. 2. Madhani N, Saraswat A, Nott A, et al. PRACT-India: Practical Recommendations on Acne Care and Medical Treatment in India—A modified Delphi consensus. *Antibiotics (Basel)*. 2025;14(8):844. 3. Li M, Lynde C, Sibley C, et al. A multicentre evaluation of a ceramide-containing hydrating cream-to-foam cleanser and facial moisturizing lotion for improving topical treatment tolerability in facial acne. *J Cutan Med Surg*. 2025;29(1):3S–13S. 4. Diez MTT, Vicente MH, Vitale M, et al. Barrier-repair cream as an adjuvant to oral isotretinoin therapy improves skin hydration, acne lesions and patient satisfaction: A prospective pilot controlled study. 2025. 5. Tempark T, Shem A, Lueangarun S. Efficacy of ceramides and niacinamide-containing moisturizer versus hydrophilic cream in combination with topical anti-acne treatment in mild-to-moderate acne vulgaris: A split face, double-blinded, randomized controlled trial. *J Cosmet Dermatol*. 2024;23(5):1758–1765.



NEW TECHNOLOGY

Where do biologics fit in acne management?

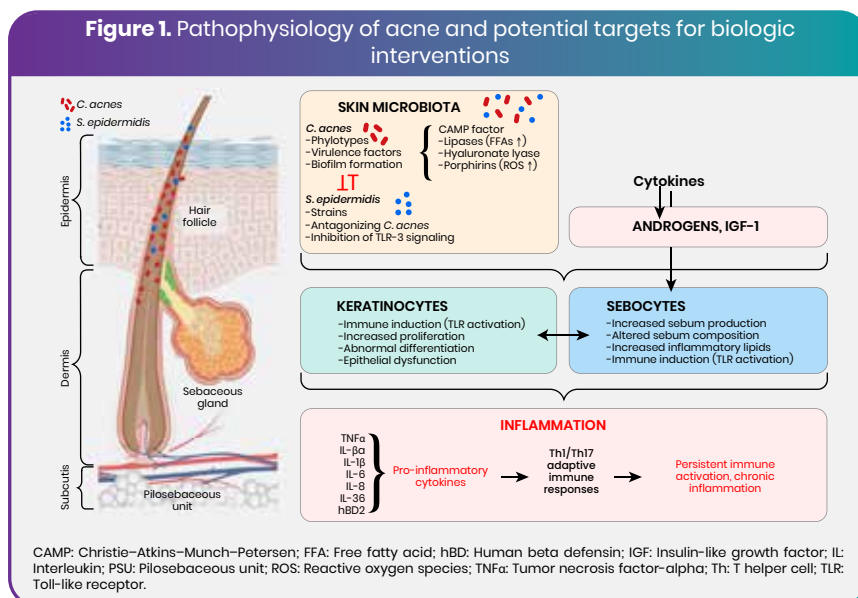
Acne vulgaris is a chronic inflammatory skin condition with a multifactorial pathogenesis involving follicular hyperkeratinization, sebaceous gland dysregulation, microbial dysbiosis—particularly involving *Cutibacterium acnes* and *Staphylococcus epidermidis*—and complex immune-mediated mechanisms, on which T helper cell 1 (Th1) and Th17 pathways are central players. This evolving

understanding has led to the exploration of biologic therapies targeting cytokines such as tumor necrosis factor-alpha (TNF α), interleukin (IL)-1, IL-17, and IL-23. Given the success of biological treatments in managing various inflammatory skin diseases, it is worth exploring whether these therapies could provide similar benefits for acne.

Pathogenesis with potential targets for biologics

This schematic (Figure 1) illustrates the key cellular and molecular events contributing to acne pathogenesis, centered around the pilosebaceous unit (PSU). It also emphasizes the interplay between microbial factors, lipid metabolism, epithelial responses, and immune activation, and highlights potential targets for biologic interventions aimed at modulating microbial composition, cytokine activity, and sebocyte function.

Clinical trials to date, however, have not demonstrated efficacy of biologics in moderate-to-severe acne. In contrast, some case reports and studies suggest clinical improvement with TNF α and IL-17A inhibitors in severe, treatment-resistant acne, although these presentations often overlap with



hidradenitis suppurativa (HS), raising questions about diagnosis and underlying disease mechanisms. Furthermore, in various monogenic autoinflammatory syndromes where “acne-like” lesions are part of the clinical

spectrum, biologic therapies have shown effectiveness. These observations suggest that in such contexts, the lesions may reflect HS or HS-like pathology rather than true acne, potentially explaining the therapeutic benefit of biologicals in this context.

While biologics hold promise in defined inflammatory dermatoses, their role in the management of acne vulgaris remains unproven and may be limited to specific phenotypes that overlap with autoinflammatory or HS-related conditions. There is a significant medical need for highly effective targeted treatments for severe acne that can ensure rapid improvement, minimize recurrences, and prevent scarring. However, as of now, no biologics have been approved specifically for the treatment of acne.

Reference: Kemény L, Degovics D, Szabó K. Is there a place for biologics in acne? Am J Clin Dermatol. 2025;26(5):667–676.



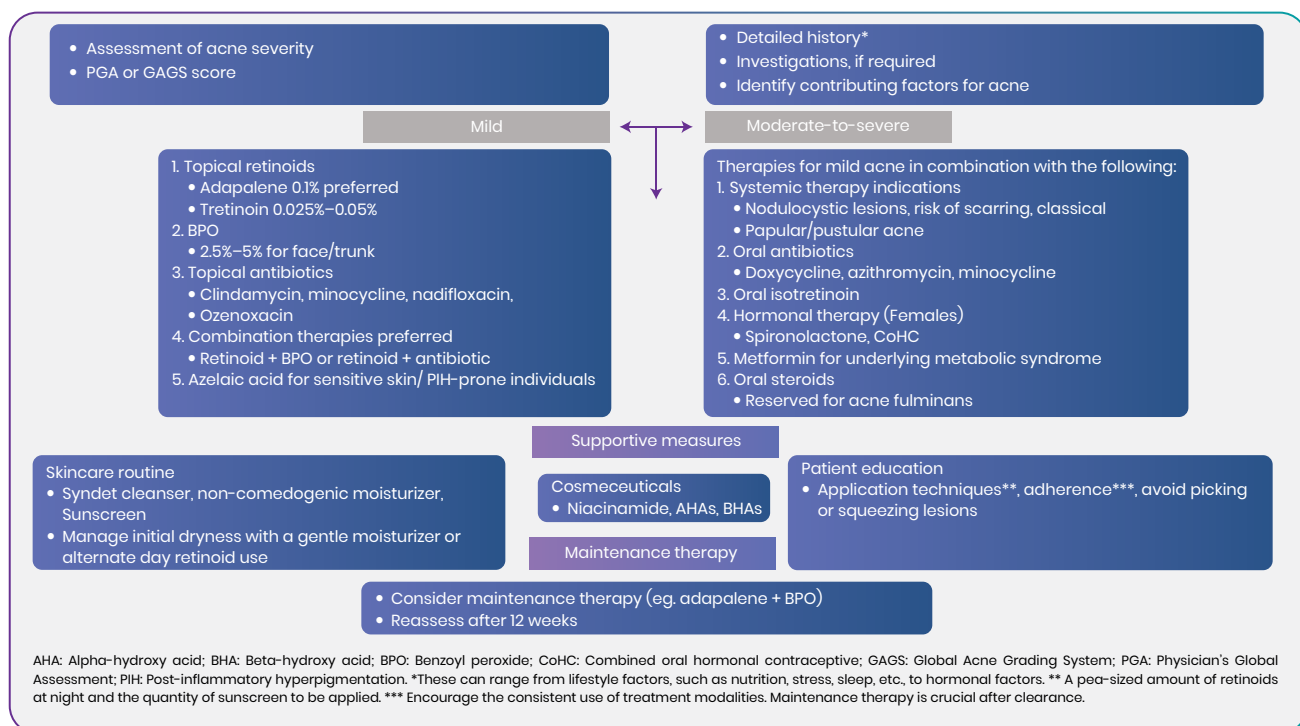
GUIDELINE UPDATE

PRACT-India: Practical Recommendations on Acne Care and Medical Treatment in India—A modified Delphi consensus

The PRACT-India consensus aimed to provide tailored, evidence-based recommendations for optimizing acne treatment in the Indian context. A panel of 14 dermatology experts with ≥15 years of experience reviewed literature, real-world clinical practices, and patient-centric factors

relevant to acne management in India. Using a modified Delphi process with two virtual voting rounds, 61 statements across seven clinical domains were evaluated. Consensus was defined as ≥75% agreement.

Algorithm for diagnosis and medical management of acne



Key expert recommendations

- Incorporating dermocosmetics (cosmeceuticals) into daily skincare routine, including cleansers, moisturizers, and sunscreens, can enhance treatment tolerability and efficacy. These adjuncts help maintain skin barrier integrity, reduce irritation from topical medications, and improve overall satisfaction.
- Experts recommend regular use of a non-comedogenic moisturizer and a gentle cleanser to manage irritation and prevent dryness, maintain skin hydration, and protect the skin barrier.

Reference: Madhani N, Saraswat A, Nott A, et al. PRACT-India: Practical Recommendations on Acne Care and Medical Treatment in India-A modified Delphi consensus. Antibiotics (Basel). 2025;14(8):844.



CONFERENCE UPDATE

DERMACON 2026

Date: January 29–February 01, 2026

Location: Bengaluru, Karnataka

Website:

<https://dermacon2026bengaluru.com/index.html>

9th World Cosmetic and Dermatology Congress

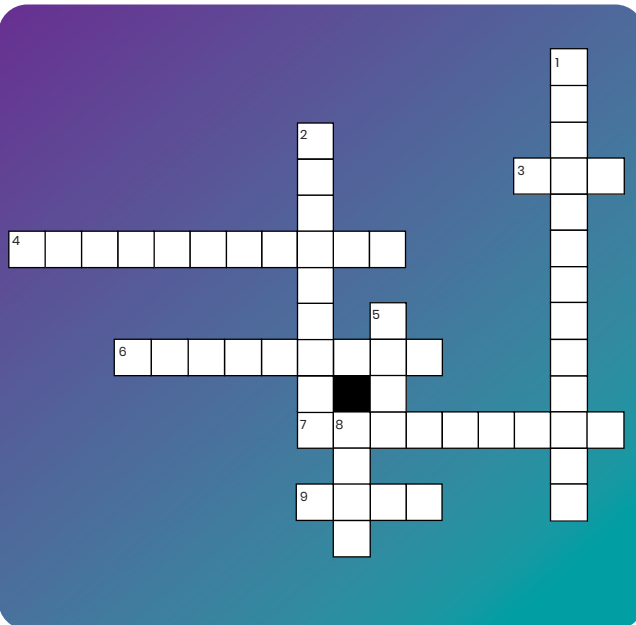
Date: April 16–17, 2026

Location: Tokyo, Japan

Website: <https://cosmetic.dermatologymeeting.com/>



CROSSWORD



ACROSS

- Common sequela of acne presenting as dark marks post-inflammation (abbreviation).
- Vitamin B3 derivative with anti-inflammatory and sebum-reducing effects.
- Moisturizer ingredient that mimics natural skin lipids and supports barrier repair.
- Commonly used keratolytic agent alongside benzoyl peroxide (___ acid).
- Cytokine targeted by certain biologics studied in acne pathogenesis.

DOWN

- The bacterium most associated with acne pathogenesis (___ acnes).
- Mainstay topical class used as first-line therapy for mild-to-moderate acne.
- Measure of water escaping through the skin barrier, increased by acne therapies(abbreviation).
- Chronic inflammatory disorder of pilosebaceous units presenting with comedones and pustules.

Answers:
Across 3. PIH; 4. Niacinamide; 6. Ceramides; 7. Salicylic; 9. TNFα
Down 1. Cutibacterium; 2. Retinoids; 5. TEWL; 8. Acne