



Acne and Rosacea Updates

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Disclosures

- No pertinent disclosures for this talk
- I will be discussing off-label uses of medications

Outline

- Recent updates in acne management
- Hormonal therapies and acne
- Isotretinoin monitoring updates
- Isotretinoin and risk of IBD, depression
- Antihistamines and isotretinoin
- Diet and acne
- JAK inhibitors and acne
- Rosacea

PERSONAL HEALTH

The Emotional Toll of Adult Acne

The skin blemishes can affect people in their 30s, 40s and beyond and lead to depression, anxiety and social isolation.



Gracia Lam

TikTok Seems to Love Every Acne Fix (Except For Seeing a Dermatologist)

Here's what experts think about those DIY acne treatments on your For You page.

written by HANNAH KERNS UPDATED ON MAY 19, 2022

- Saltwater spray
- Liquid chlorophyll
- Potato slices
- Toothpaste
- The ice facial
- Menstrual blood face mask



Editorial

ONLINE FIRST

July 20, 2022

More Than Skin Deep—Understanding the Lived Experience of Acne

John S. Barbieri, MD, MBA^{1,2}; Frances K. Barg, PhD, MEd^{3,4}

[» Author Affiliations](#) | [Article Information](#)

JAMA Dermatol. Published online July 20, 2022. doi:10.1001/jamadermatol.2022.2741

Updates in Acne Therapies

- New topical retinoids:
 - Trifarotene 0.005% cream (RAR receptor)
 - Tazarotene lotion 0.045%
- Narrow-spectrum antibiotics: Sarecycline daily, 60-100 mg based on weight
- Topical minocycline foam

Clascoterone

- First in-class anti-androgen that topically addresses hormonal pathogenesis of acne
- Formulated as 1% cream
- Also known as cortexolone 17alpha-propionate
- Androgen receptors are present throughout skin, specifically sebaceous glands
- Inhibits human AR at level of sebaceous gland

Other topical hormonal therapies

- Compounded spironolactone

> [Health Sci Rep](#). 2021 Jul 1;4(3):e317. doi: 10.1002/hsr2.317. eCollection 2021 Sep.

Efficacy and safety of topical spironolactone 5% cream in the treatment of acne: A pilot study

Azin Ayatollahi ¹, Ansieh Samadi ¹, Ayda Bahmanjahromi ², Reza M Robati ² ³

Oral Contraceptive Therapies and Acne

- Combined oral contraceptives (COCs) overall have a lower risk of acne
- Six COCs evaluated in placebo-controlled trials and all reduce acne
- COCs containing antiandrogen progestins (ie drospirenone) have been thought to be more effective
- However, Cochrane review with **no consistent differences between COCs types and efficacy**
- Progestins included levonorgestrel, norethindrone acetate, norgestimate, drospirenone, dienogest, and chlormadinone acetate

Contraception and Acne

- Copper intrauterine device (IUD) and levonorgestrel IUD are associated with increased risk of acne

Isotretinoin Updates

› [JAMA Dermatol.](#) 2022 Aug 1;158(8):942-948. doi: 10.1001/jamadermatol.2022.2044.

Isotretinoin Laboratory Monitoring in Acne Treatment: A Delphi Consensus Study

Eric Xia ^{1 2}, Jane Han ^{1 3}, Adam Faletsky ^{1 4}, Hilary Baldwin ⁵, Katie Belezny ⁶,
Vincenzo Bettoli ⁷, Brigitte Dréno ⁸, Chee Leok Goh ⁹, Linda Stein Gold ¹⁰, Harald Gollnick ¹¹,
Maria Isabel Herane ¹², Sewon Kang ¹³, Leon Kircik ¹⁴, Julianne Mann ¹⁵, Alexander Nast ¹⁶,
Hazel H Oon ⁹, Jo Ann See ¹⁷, Megha Tollefson ¹⁸, Guy Webster ¹⁹, Catherine Zip ²⁰,
Jerry Tan ²¹, Elliot B Tapper ²², Diane Thiboutot ^{23 24}, Andrea Zaenglein ^{23 24}, John Barbieri ¹,
Arash Mostaghimi ¹

Isotretinoin Lab Monitoring Guidelines

- Consensus was achieved for the following:
- **Check alanine aminotransferase (ALT)** within a month prior to initiation (89.5%) and at peak dose (89.5%) but not monthly (76.2%) or after treatment completion (73.7%)
- **Check triglycerides** within a month prior to initiation (89.5%) and at peak dose (78.9%) but not monthly (84.2%) or after treatment completion (73.7%)

Isotretinoin Lab Monitoring Guidelines

- **Do NOT check** complete blood cell count or basic metabolic panel parameters at any point during isotretinoin treatment (all >70%)
- **Do NOT check** gamma-glutamyl transferase (78.9%), bilirubin (81.0%), albumin (72.7%), total protein (72.7%), low-density lipoprotein (73.7%), high-density lipoprotein (73.7%), or C-reactive protein (77.3%)

Isotretinoin and IBD risk

- IBD incidence among isotretinoin-exposed patients with acne is very low
- And appears similar to that for unexposed patients with acne
- Study did find slightly increased risk in first 6 month after starting tx
- However, difference did not persist at 1 year

Isotretinoin and IBD risk

- Potential sources of bias could account for that increased risk at 6 months as IBD is a chronic disease
- Limitations: isotretinoin-exposed patients may be more likely to have IBD detected because of follow-up recommendations
- Additionally, most patients have prior tetracycline exposure
- Tetracycline, particularly doxycycline, is associated with IBD, specifically CD
- Future studies should consider confounding by prior exposure to doxycycline

Screen Patients for IBD

- Before starting oral tetracyclines or isotretinoin, ask about GI symptoms:
 - diarrhea, urgency, abdominal pain, loss of appetite/weight loss, blood in stool
- If your patient does have GI symptoms, consider checking **fecal calprotectin** levels prior to starting therapy

Isotretinoin and Depression

Isotretinoin treatment for acne and risk of depression: A systematic review and meta-analysis

Yu-Chen Huang, MD,^{a,b} and Ying-Chih Cheng, MD^{c,d}
Taipei and New Taipei City, Taiwan

- 31 studies met inclusion criteria
- Limitation: No RCTs
- **Conclusion: isotretinoin treatment does not appear to be associated with an increased risk for depression.**
Moreover, treatment of acne appears to ameliorate depressive symptoms

Antihistamines and Isotretinoin

- Studies have found antihistamine use with isotretinoin minimized side effects of isotretinoin, reduced acne flares, and improved lesion clearance
- Antihistamines used: levocetirizine or desloratadine
- Histamine as an inflammatory mediator in acne
- Antihistamine thought to help with components of:
 - Itch
 - Anti-inflammatory effects
 - Decrease lipogenesis in sebocytes



ASK WELL

Will Cutting Out Dairy Give Me Clear Skin?

Maybe, experts say, but the science is mixed.



Diet and Acne

- Association with high glycemic foods, milk consumption and acne
- Milk consumption → Increase insulin and insulin-like-growth factor 1 levels → lipogenesis and proliferation of keratinocytes, sebocytes
- Uncertainty re causal interference and magnitude of association
- Study by Penso et al. found fatty and sugary products, milk, associated with acne in adults
- However, weakly significant (ie for milk: adjusted OR of 1.12, 95% CI 1-1.25)
- **No data on % of milkfat and amount of whey protein*

Recommendations for Diet and Acne

- Dietary modifications should be considered as adjunctive strategies
- Reasonable to recommend low glycemic-load diet
- Less clear evidence re milk but if considering dairy modifications, remember to discuss other effects including calcium and vitamin D

Case

- Include photos

Your patient asks you:

- Why do I have acne now?
- Will it get better?
- How do I treat it?
- Should I continue therapy with my JAK inhibitor?
- Do I need to start isotretinoin?

Acne and JAK Inhibitors

- With the emerging use of JAK inhibitors, acne is reported as an adverse event
- JAK inhibitor trials for atopic dermatitis and alopecia areata reported acne as a side effect
- Acne tends to be mild to moderate
- Most patients managed with standard acne regimens
- JAK1 and JAK3 have been found to be overexpressed in acne lesions

Types of “JAKne”

- *As classified by Brett King MD PHD and Brittany Craiglow MD*
- Exacerbation of underlying acne
 - Rarely nodulocystic
- Transient acneiform eruption
 - Therapy leads to resolution even after treatment is stopped (JAKi continued)
- JAKi-induced acne
 - These patients will require chronic acne management as long as on JAKi

Management of JAKne

- Same as management of any other acne
- Counsel patients about development
- While in some cases may require systemic therapy, unlikely to be a limiting factor in therapy
- Acne should not be considered a deterrent to starting JAK inhibitors

Updates in Rosacea

- Sarecycline (FDA approved for acne) has shown utility in rosacea
 - Narrow spectrum
 - Low rate of tetracycline-associated side effects
- Topical timolol evaluated for erythema
 - Rebound erythema upon discontinuation similar to brimonidine
- Consider adding additional topical therapies to your brimonidine, oxymetazoline, metronidazole regimens:
 - azelaic acid, ivermectin, niacinamide
- Don't forget about low dose isotretinoin for recalcitrant cases, but remind your patients this is suppressive and not curative

Thank You!