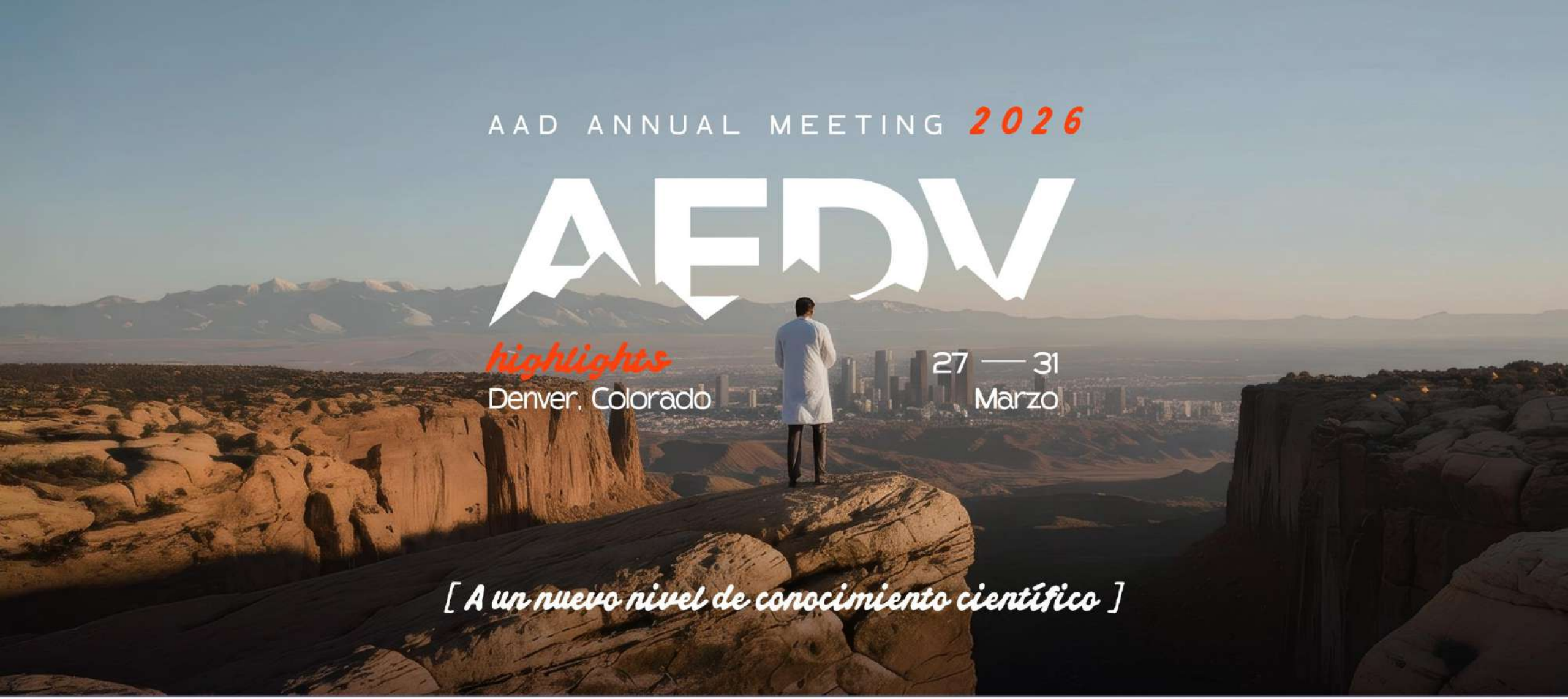

Una iniciativa de:

AEDV 1909 ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

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Con el patrocinio de:

ucb

AAD ANNUAL MEETING 2026

AEDV

highlights

Denver, Colorado

27 — 31 Marzo

Acné y Rosácea

David Revilla Nebreda

Hospital Fundación Jiménez Díaz y Grupo Pedro Jaén, Madrid

@revilladerma / davidrevillanebreda@gmail.com

highlights
Denver, Colorado

AAD ANNUAL MEETING *2026*

27 — 31
Marzo

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Una iniciativa de:

ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

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ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

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NO TENGO CONFLICTOS DE INTERÉS

highlights
Denver, Colorado

AAD ANNUAL MEETING 2026

27 — 31
Marzo

S007 – Acne and Rosacea

27/03/2026

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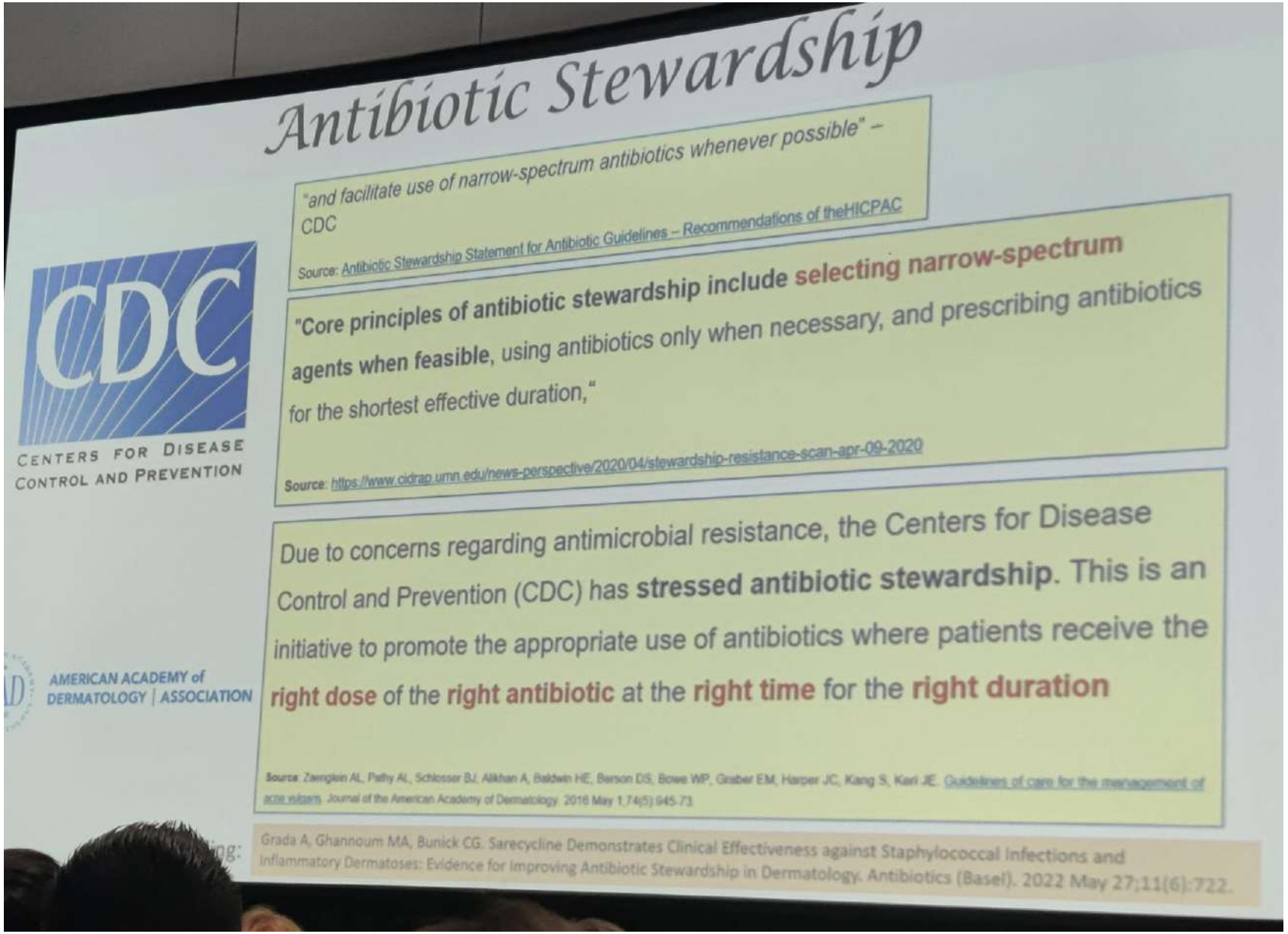
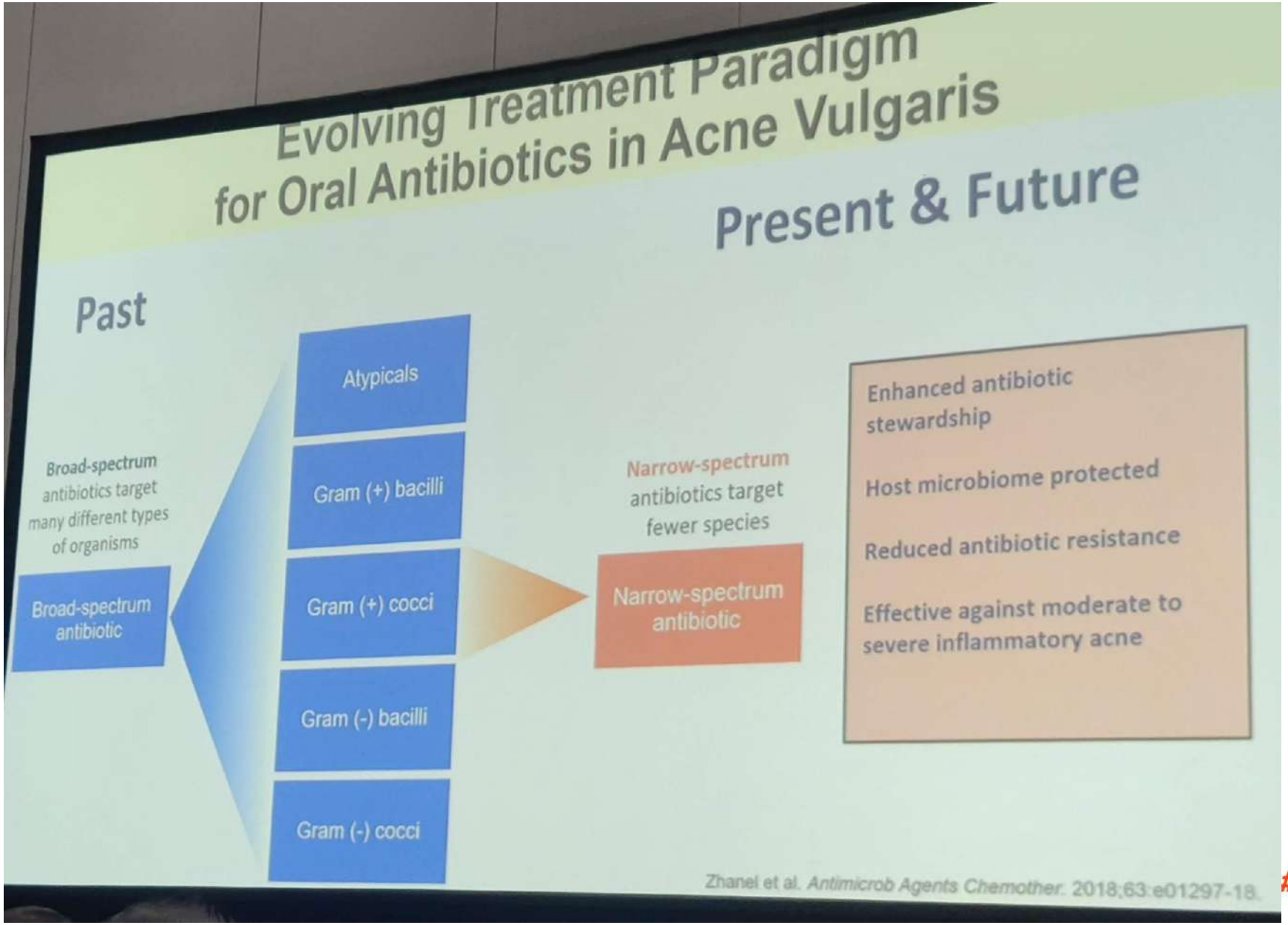
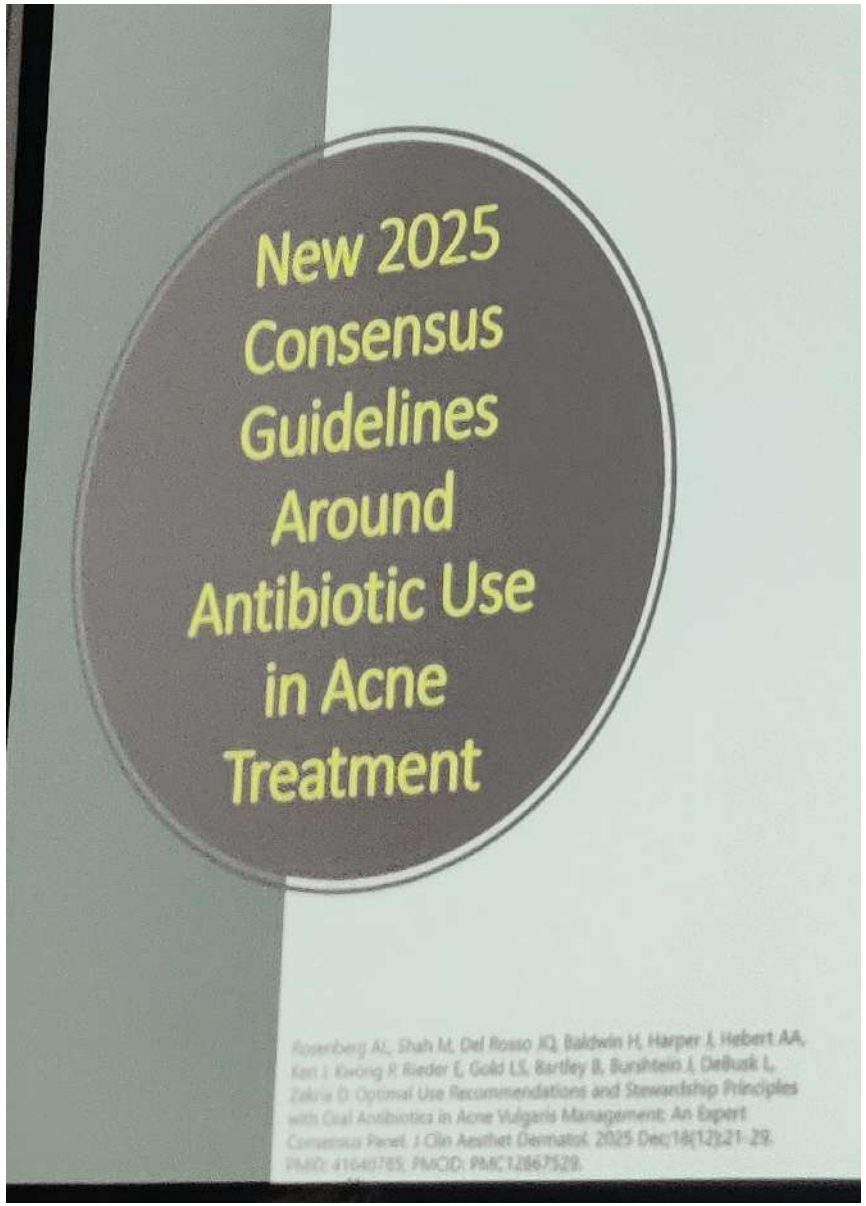
Antibiotic Update for Acne and Rosacea

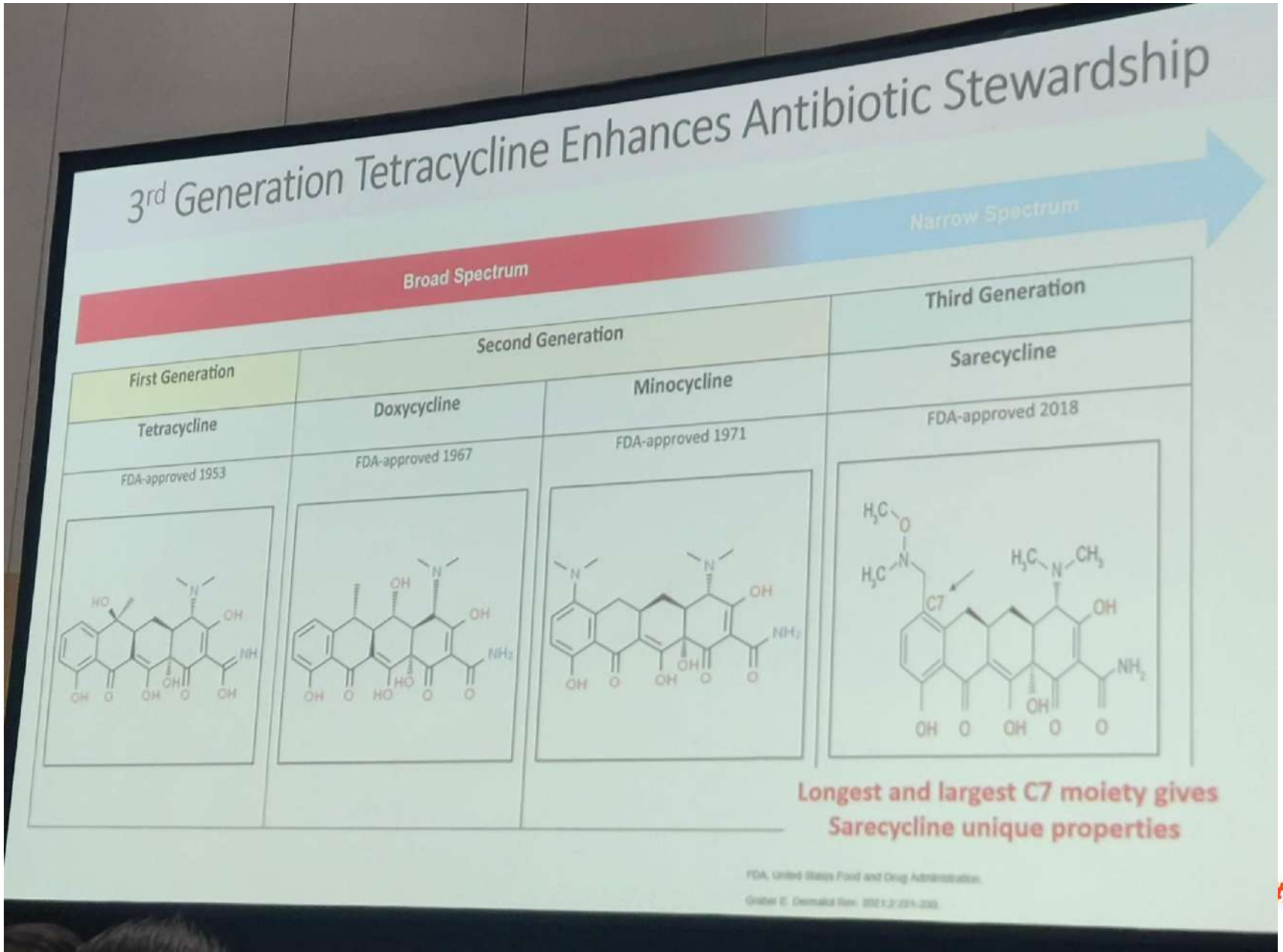
Christopher Bunick

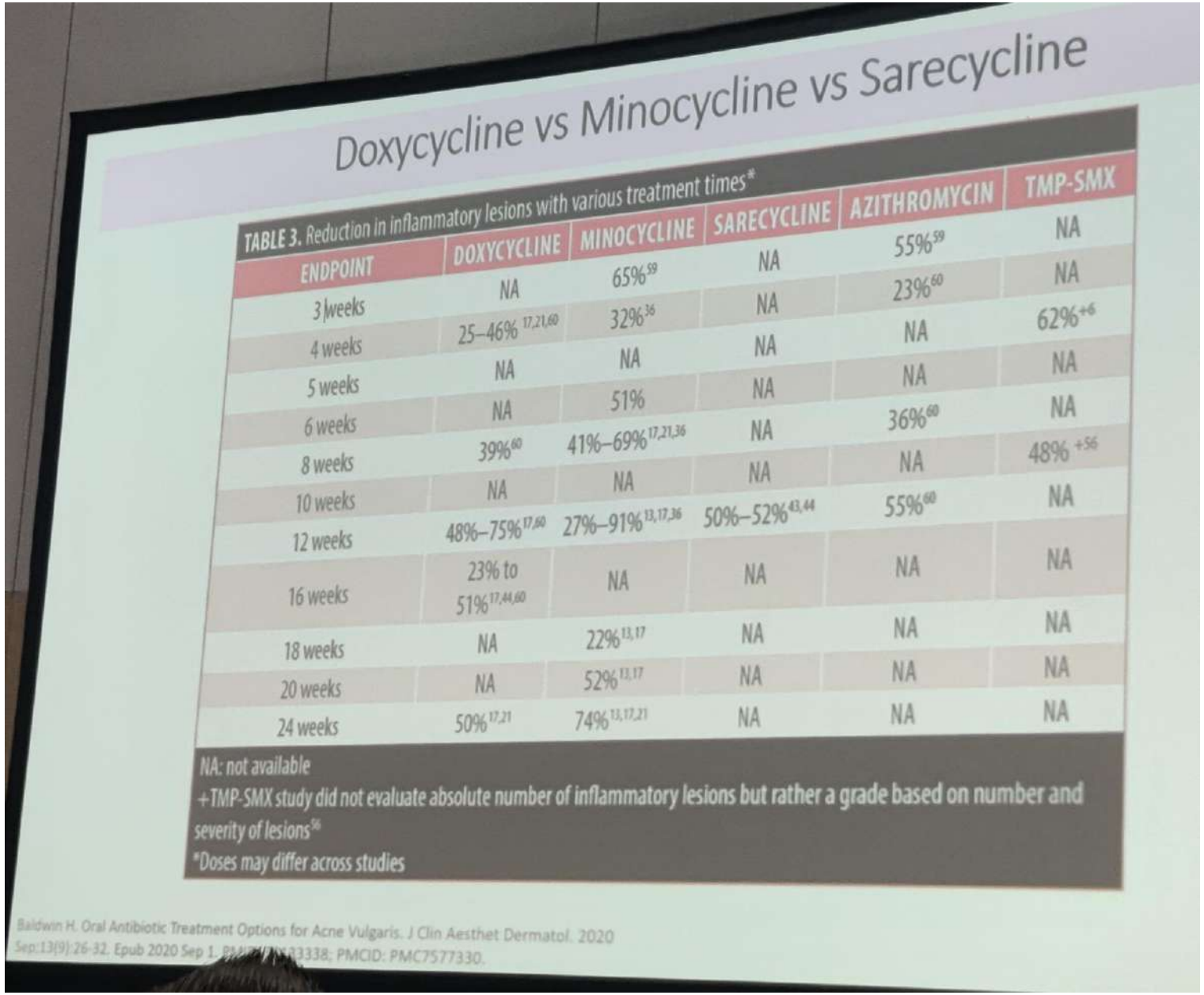

Antibiotic Stewardship
"and facilitate use of narrow-spectrum antibiotics whenever possible" – CDC
Source: Antibiotic Stewardship Statement for Antibiotic Guidelines – Recommendations of theHICPAC
CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION
"Core principles of antibiotic stewardship include selecting narrow-spectrum agents when feasible, using antibiotics only when necessary, and prescribing antibiotics for the shortest effective duration,"
Source: https://www.cidrap.umn.edu/news-perspective/2020/04/stewardship-resistance-scan-apr-09-2020
Due to concerns regarding antimicrobial resistance, the Centers for Disease Control and Prevention (CDC) has stressed antibiotic stewardship. This is an initiative to promote the appropriate use of antibiotics where patients receive the right dose of the right antibiotic at the right time for the right duration
AMERICAN ACADEMY of DERMATOLOGY | ASSOCIATION
Source: Zaenglein AL, Pathy AL, Schlosser BJ, Alikhan A, Baldwin HE, Berson DS, Bowe WP, Graber EM, Harper JC, Kang S, Keri JE. Guidelines of care for the management of acne vulgaris. Journal of the American Academy of Dermatology. 2016 May 1;74(5):945-73.
Grada A, Ghannoum MA, Bunick CG. Sarecycline Demonstrates Clinical Effectiveness against Staphylococcal Infections and Inflammatory Dermatoses: Evidence for Improving Antibiotic Stewardship in Dermatology. Antibiotics (Basel). 2022 May 27;11(6):722.


Evolving Treatment Paradigm for Oral Antibiotics in Acne Vulgaris
Present & Future
Past
Broad-spectrum antibiotics target many different types of organisms
Broad-spectrum antibiotic
Atypicals
Gram (+) bacilli
Gram (+) cocci
Gram (-) bacilli
Gram (-) cocci
Narrow-spectrum antibiotics target fewer species
Narrow-spectrum antibiotic
Enhanced antibiotic stewardship
Host microbiome protected
Reduced antibiotic resistance
Effective against moderate to severe inflammatory acne
Zhanel et al. Antimicrob Agents Chemother. 2018;63:e01297-18.



NO USAR ANTIBIÓTICOS EN MONOTERAPIA


3rd Generation Tetracycline Enhances Antibiotic Stewardship
Broad Spectrum
Narrow Spectrum
First Generation
Second Generation
Third Generation
Tetracycline
Doxycycline
Minocycline
Sarecycline
FDA-approved 1953
FDA-approved 1967
FDA-approved 1971
FDA-approved 2018
C7
Longest and largest C7 moiety gives Sarecycline unique properties



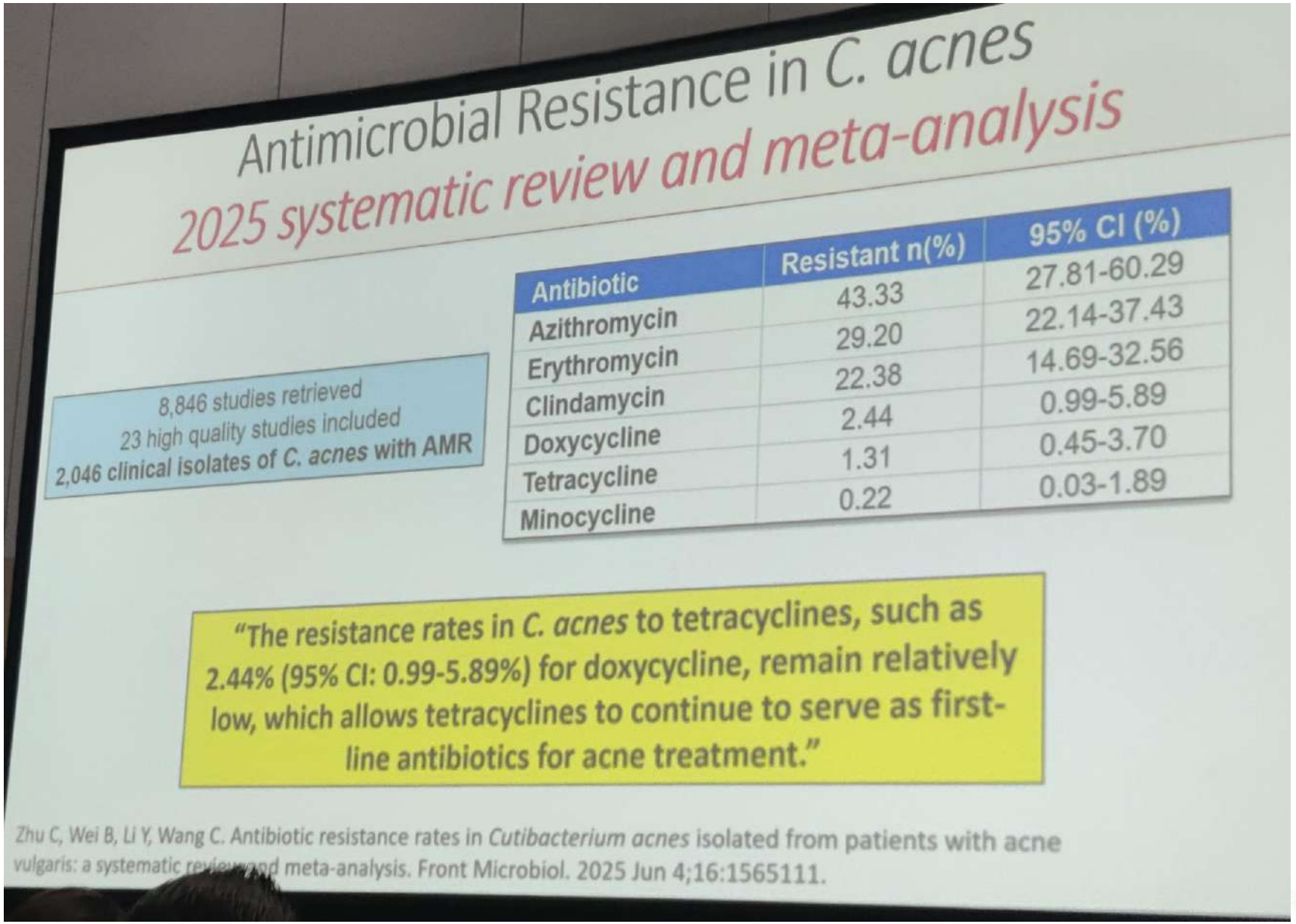
Doxycycline vs Minocycline vs Sarecycline

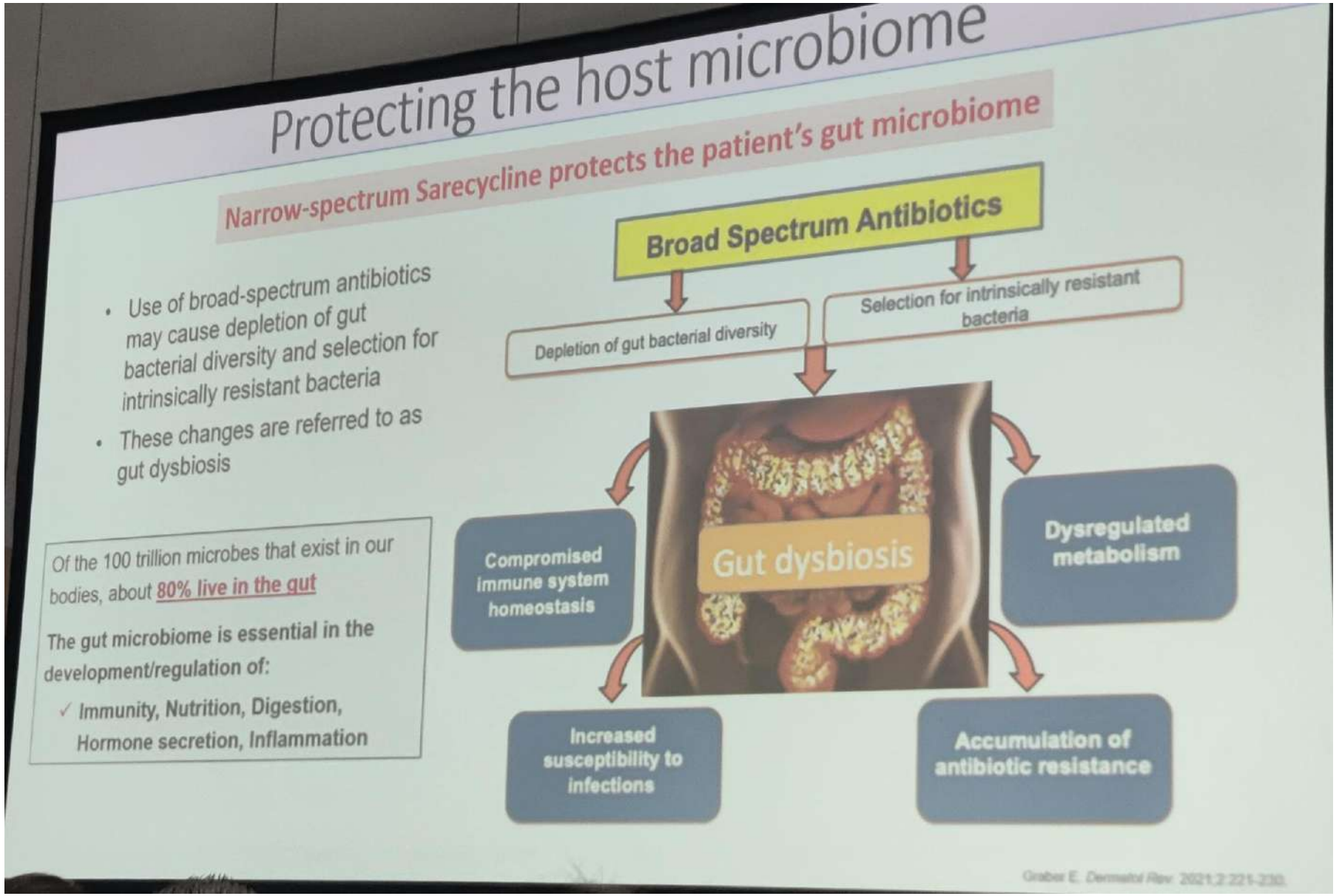
TABLE 3. Reduction in inflammatory lesions with various treatment times*

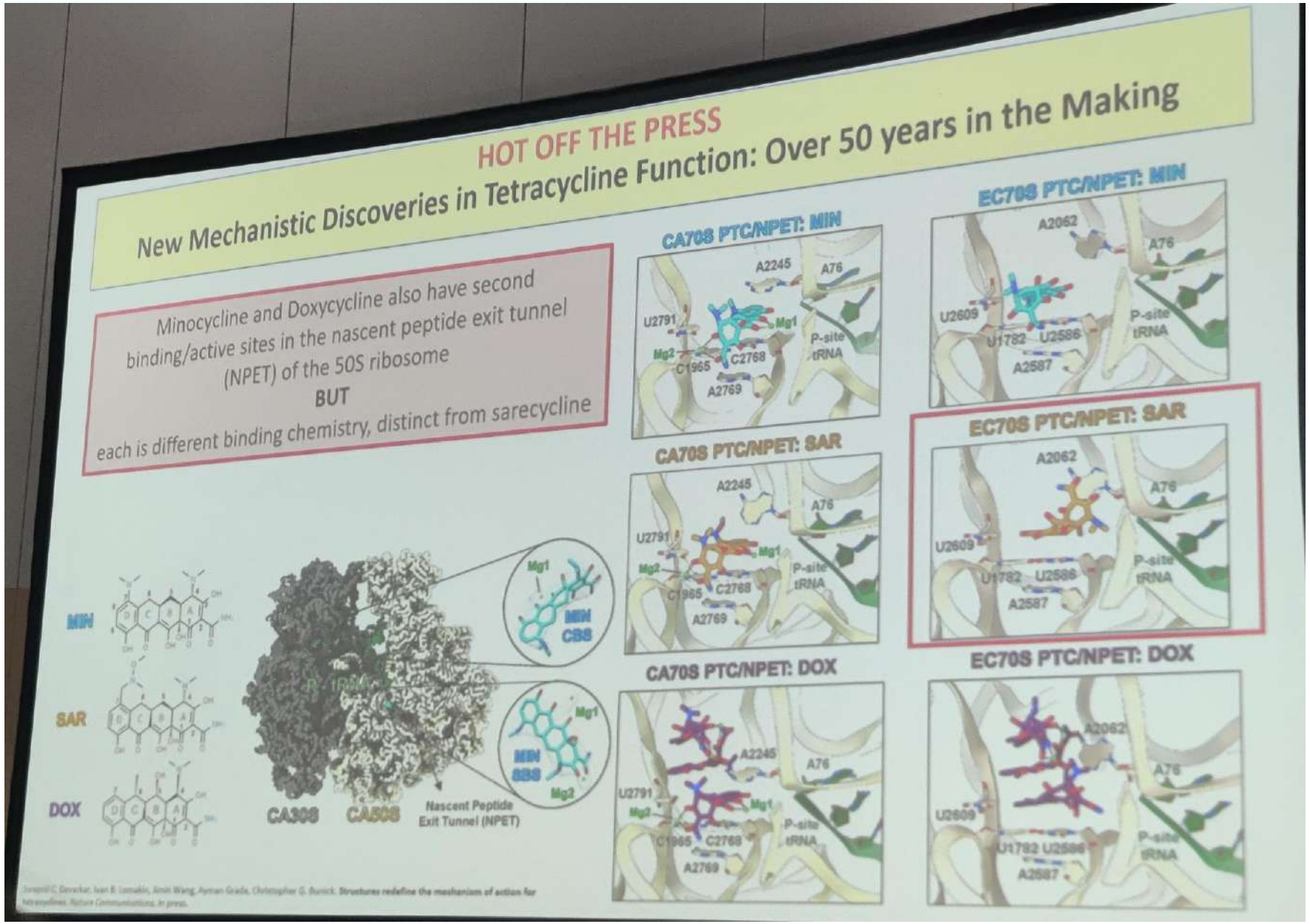
ENDPOINT	DOXYCYCLINE	MINOCYCLINE	SARECYCLINE	AZITHROMYCIN	TMP-SMX
3 weeks	NA	65%[59]	NA	55%[59]	NA
4 weeks	25–46%[17,21,60]	32%[36]	NA	23%[60]	NA
5 weeks	NA	NA	NA	NA	62%[+6]
6 weeks	NA	51%	NA	NA	NA
8 weeks	39%[60]	41%–69%[17,21,36]	NA	36%[60]	NA
10 weeks	NA	NA	NA	NA	48%[+56]
12 weeks	48%–75%[17,60]	27%–91%[13,17,36]	50%–52%[43,44]	55%[60]	NA
16 weeks	23% to 51%[17,44,60]	NA	NA	NA	NA
18 weeks	NA	22%[13,17]	NA	NA	NA
20 weeks	NA	52%[13,17]	NA	NA	NA
24 weeks	50%[17,21]	74%[13,17,21]	NA	NA	NA

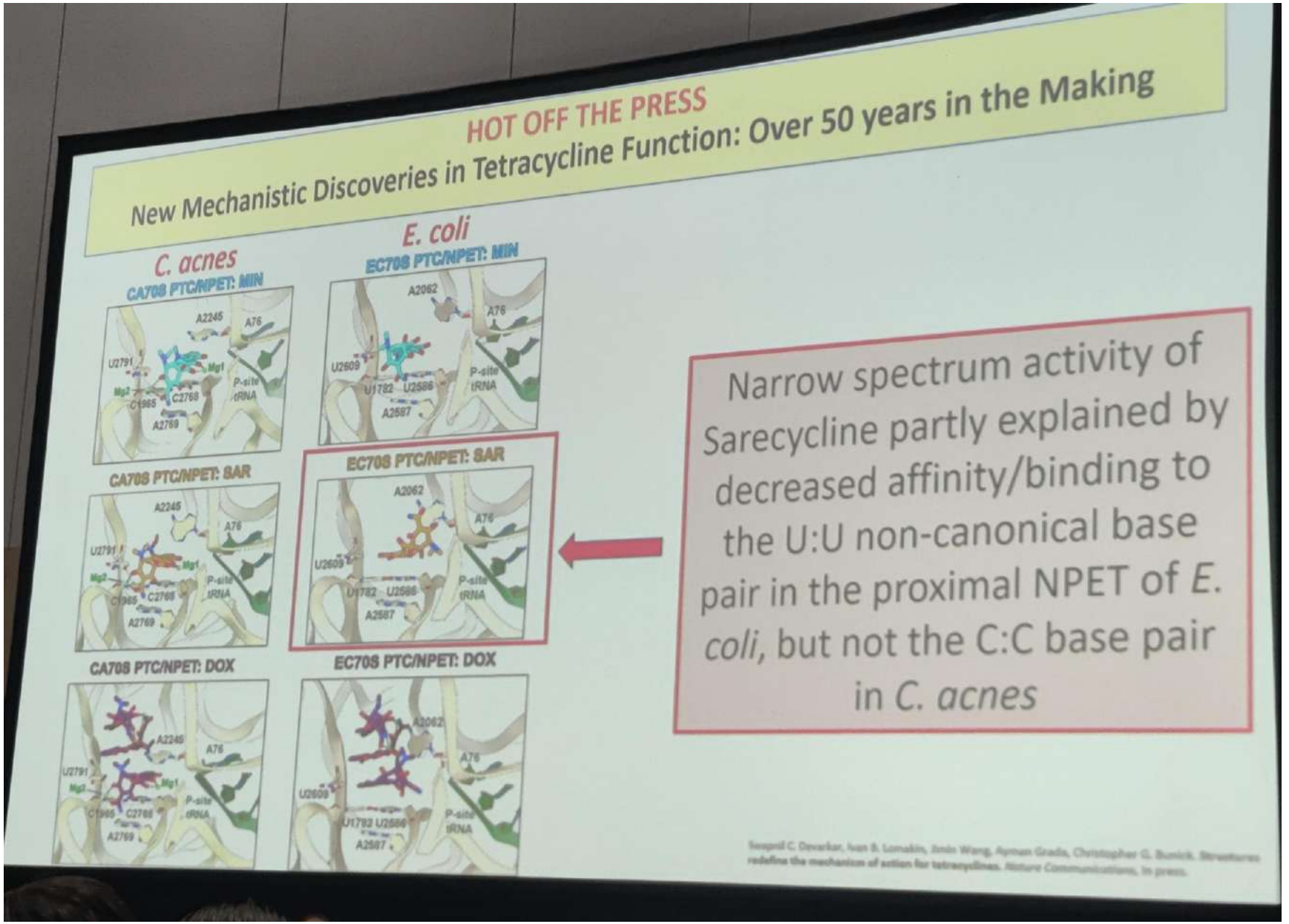
NA: not available
+TMP-SMX study did not evaluate absolute number of inflammatory lesions but rather a grade based on number and severity of lesions[56]
*Doses may differ across studies

Baldwin H. Oral Antibiotic Treatment Options for Acne Vulgaris. J Clin Aesthet Dermatol. 2020 Sep;13(9):26-32. Epub 2020 Sep 1. PMID: [illegible]3338; PMCID: PMC7577330.


Antimicrobial Resistance in C. acnes
2025 systematic review and meta-analysis
8,846 studies retrieved
23 high quality studies included
2,046 clinical isolates of C. acnes with AMR
Antibiotic | Resistant n(%) | 95% CI (%)
Azithromycin | 43.33 | 27.81-60.29
Erythromycin | 29.20 | 22.14-37.43
Clindamycin | 22.38 | 14.69-32.56
Doxycycline | 2.44 | 0.99-5.89
Tetracycline | 1.31 | 0.45-3.70
Minocycline | 0.22 | 0.03-1.89
"The resistance rates in C. acnes to tetracyclines, such as 2.44% (95% CI: 0.99-5.89%) for doxycycline, remain relatively low, which allows tetracyclines to continue to serve as first-line antibiotics for acne treatment."
Zhu C, Wei B, Li Y, Wang C. Antibiotic resistance rates in Cutibacterium acnes isolated from patients with acne vulgaris: a systematic review and meta-analysis. Front Microbiol. 2025 Jun 4;16:1565111.


Protecting the host microbiome
Narrow-spectrum Sarecycline protects the patient's gut microbiome
Broad Spectrum Antibiotics
Depletion of gut bacterial diversity
Selection for intrinsically resistant bacteria
Use of broad-spectrum antibiotics may cause depletion of gut bacterial diversity and selection for intrinsically resistant bacteria
These changes are referred to as gut dysbiosis
Of the 100 trillion microbes that exist in our bodies, about 80% live in the gut
The gut microbiome is essential in the development/regulation of:
✓ Immunity, Nutrition, Digestion, Hormone secretion, Inflammation
Gut dysbiosis
Compromised immune system homeostasis
Dysregulated metabolism
Increased susceptibility to infections
Accumulation of antibiotic resistance


HOT OFF THE PRESS
New Mechanistic Discoveries in Tetracycline Function: Over 50 years in the Making
Minocycline and Doxycycline also have second binding/active sites in the nascent peptide exit tunnel (NPET) of the 50S ribosome
BUT
each is different binding chemistry, distinct from sarecycline
CA70S PTC/NPET: MIN
EC70S PTC/NPET: MIN
CA70S PTC/NPET: SAR
EC70S PTC/NPET: SAR
CA70S PTC/NPET: DOX
EC70S PTC/NPET: DOX
MIN
SAR
DOX
CA30S
CA50S
Nascent Peptide Exit Tunnel (NPET)
P-site tRNA


HOT OFF THE PRESS
New Mechanistic Discoveries in Tetracycline Function: Over 50 years in the Making
C. acnes
CA70S PTC/NPET: MIN
CA70S PTC/NPET: SAR
CA70S PTC/NPET: DOX
E. coli
EC70S PTC/NPET: MIN
EC70S PTC/NPET: SAR
EC70S PTC/NPET: DOX
A2062
A76
A2245
U2609
U1782
U2586
A2587
U2791
Mg1
Mg2
C1965
C2768
A2769
P-site tRNA
Narrow spectrum activity of Sarecycline partly explained by decreased affinity/binding to the U:U non-canonical base pair in the proximal NPET of E. coli, but not the C:C base pair in C. acnes

Comparison of tetracycline-class antibiotics used in acne vulgaris

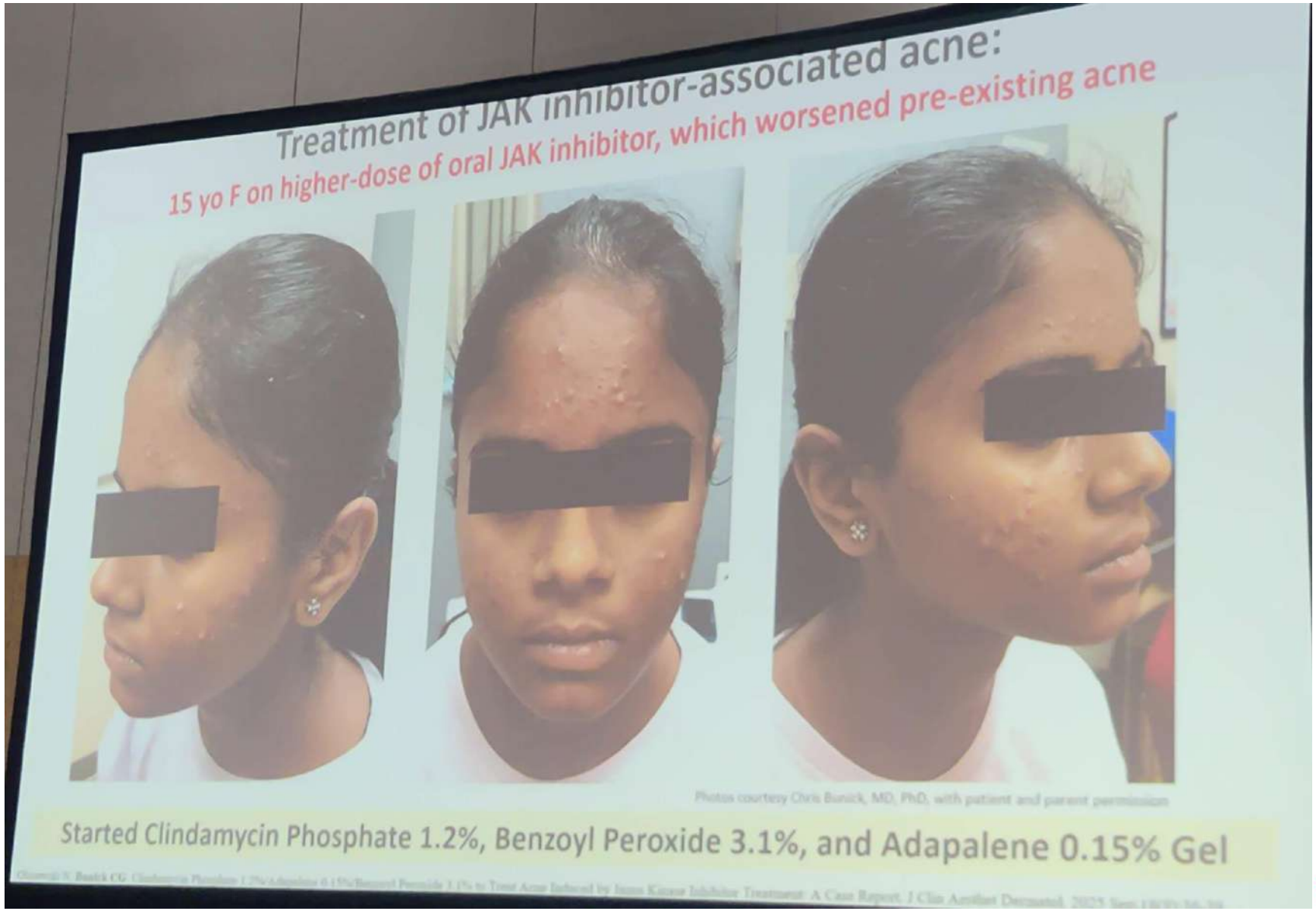
	Can be taken with food	Lipophilic	Photosensitivity	GI upset	Vestibular adverse events	Spectrum of activity
Tetracycline	No	+	++	++	0[a]	Broad
Doxycycline	Yes	++	+++	+++	0[a]	Broad
Minocycline	Yes	+++	++	++	++	Broad
Sarecycline	Yes	++	0[a]	+	0[a]	Narrow

Abbreviation: GI, gastrointestinal.
[a]Occurs in less than 1% of patients.

TABLE 1 Recommended weight-based dosing for sarecycline

Body weight (kg)	Tablet strength (mg)
33–54	60
55–84	100
85–136	150

Grada A, et al. Dermatol Ther. 2022 Mar;35(3):e15275.
Graber EM. Treating acne with the tetracycline class of antibiotics: A review. Dermatological Reviews. 2021;1-10.


Treatment of JAK inhibitor-associated acne:
15 yo F on higher-dose of oral JAK inhibitor, which worsened pre-existing acne
Started Clindamycin Phosphate 1.2%, Benzoyl Peroxide 3.1%, and Adapalene 0.15% Gel

Update on Spironolactone

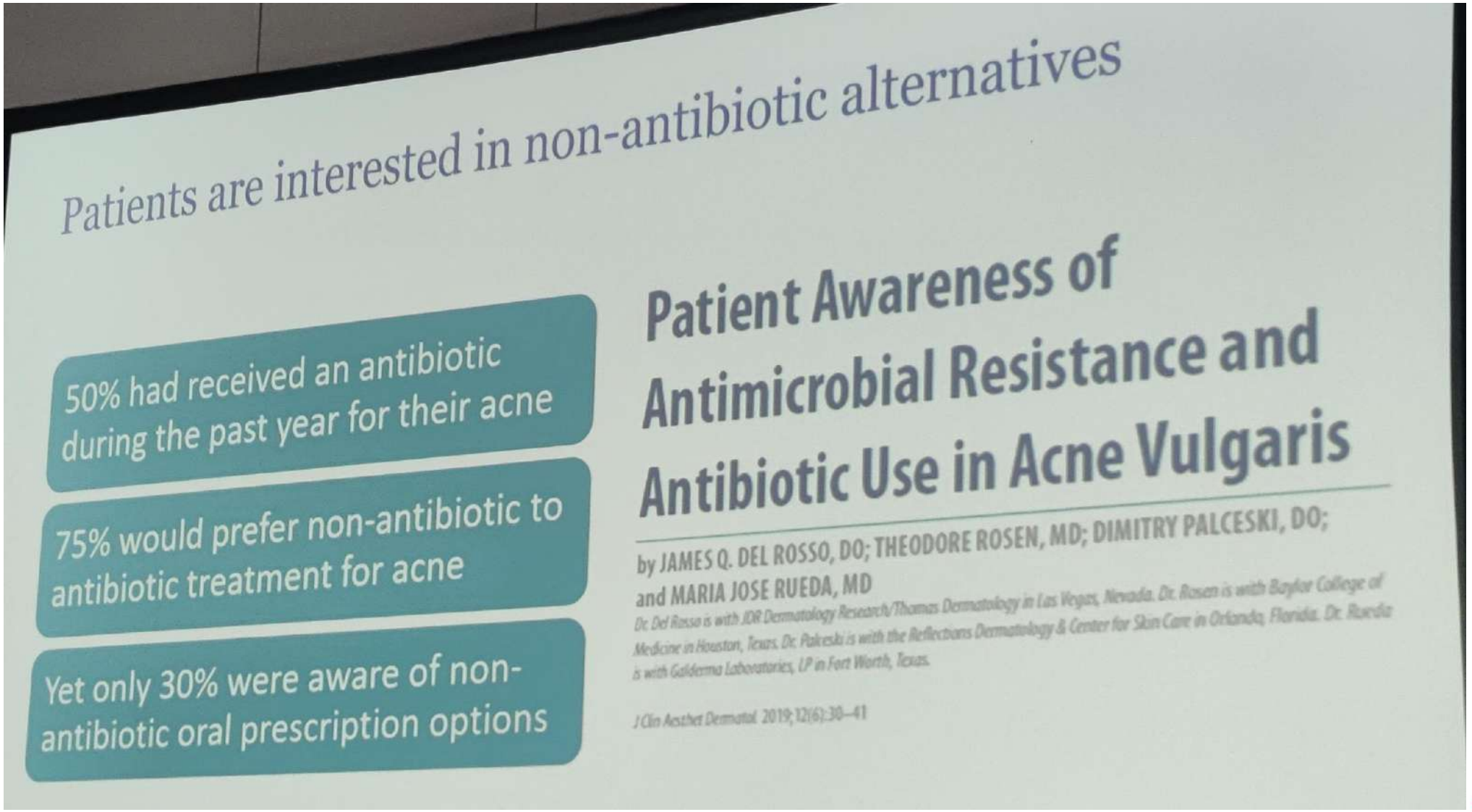
John Barbieri

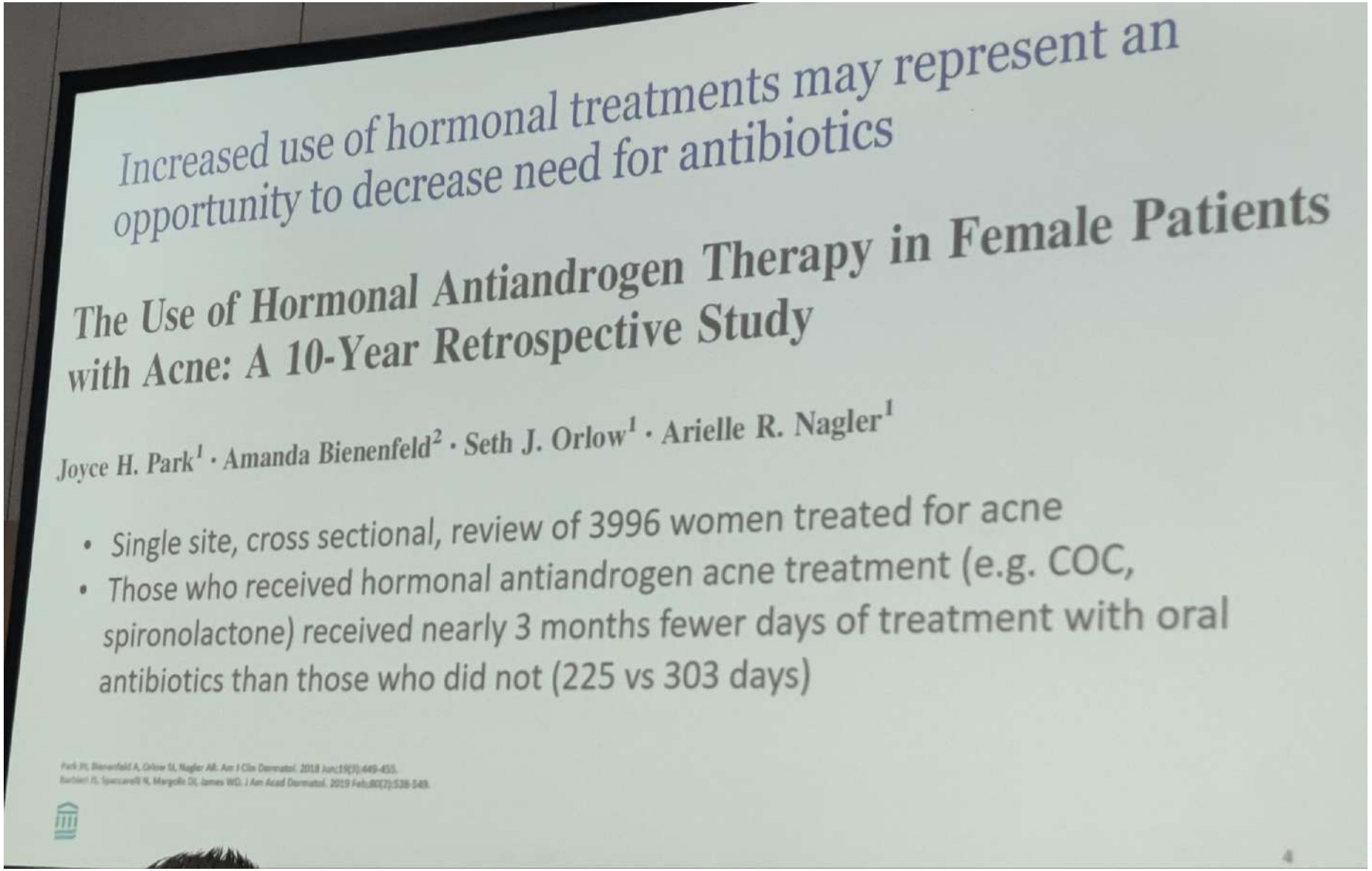
Spironolactone is growing in popularity for acne treatment

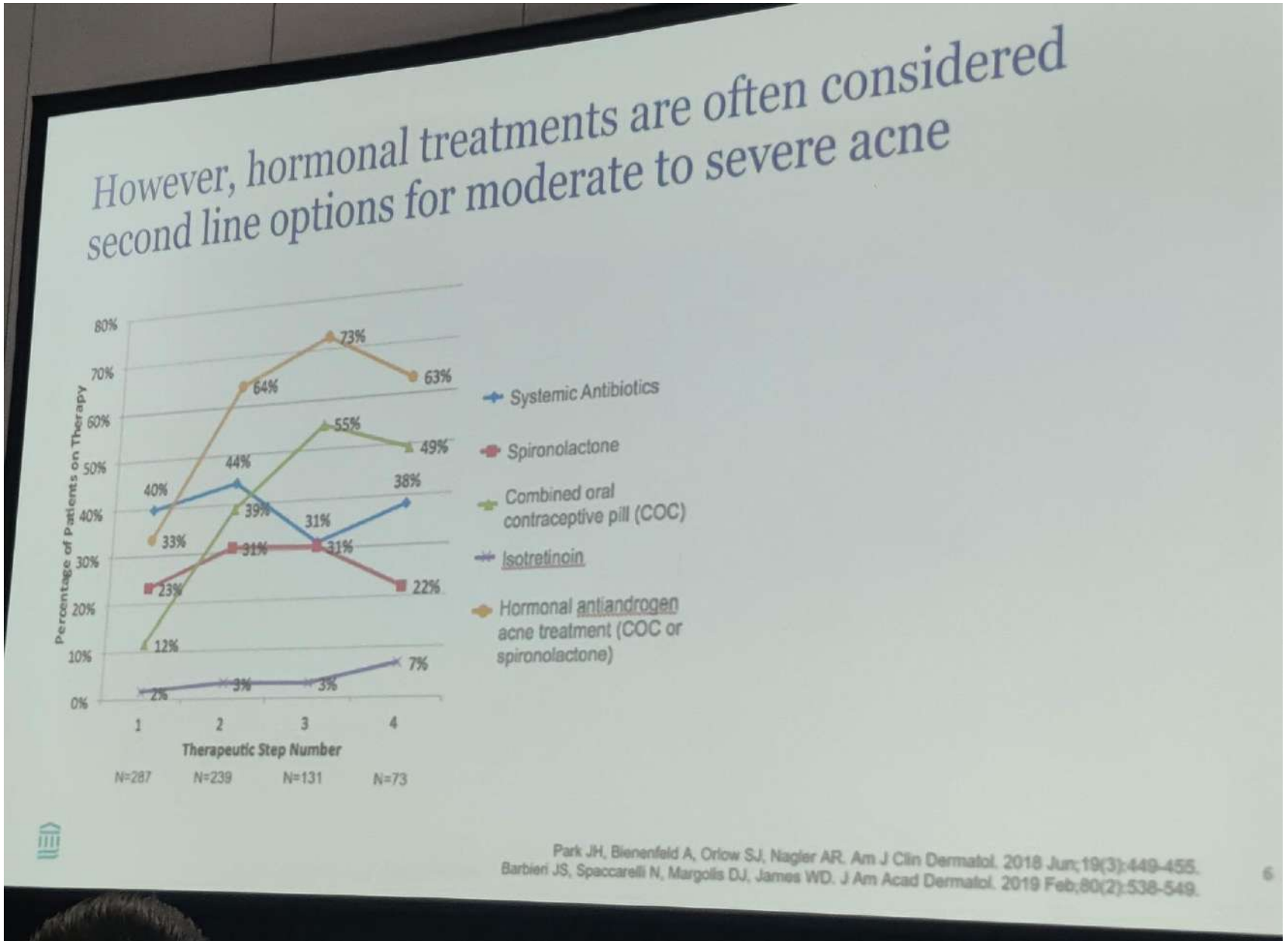
Table 1. Courses per 100 Acne Encounters for Female Patients With Acne

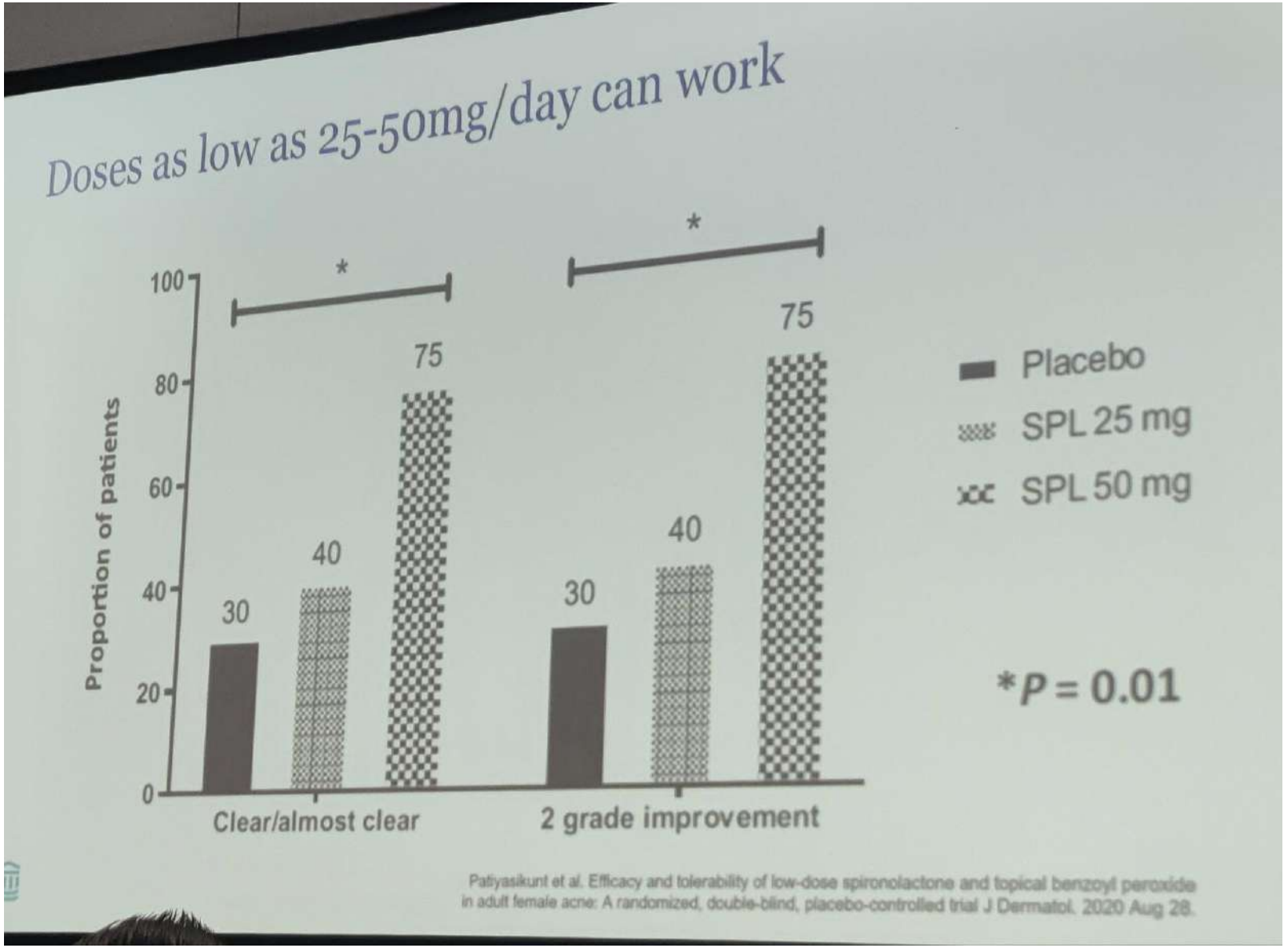
	Dermatology physician					Nurse practitioner or physician assistant					Nondermatology physician				
Variable	2017	2018	2019	2020	% Change (2017-2020)	2017	2018	2019	2020	% Change (2017-2020)	2017	2018	2019	2020	% Change (2017-2020)
Spironolactone	3.3	8.0	10.6	13.0	294	3.0	6.6	8.1	9.2	207	1.3	3.4	4.5	6.0	353
Isotretinoin	1.5	1.4	1.3	1.4	-6	1.4	1.4	1.2	1.2	-15	NA	NA	NA	NA	NA
Tetracyclines	6.9	9.4	10.1	10.4	52	7.1	8.9	8.6	8.3	17	3.6	5.4	5.9	6.3	75
Doxycycline	3.9	5.7	6.3	6.6	72	3.6	4.8	5.0	4.9	36	1.7	2.8	3.2	3.4	107
Minocycline	3.4	4.1	4.2	4.3	27	3.9	4.5	3.9	3.8	-3	2.1	2.9	3.0	3.1	45
Other antibiotics	1.1	1.7	1.9	1.8	56	1.1	1.5	1.5	1.4	31	0.5	0.8	0.9	0.9	72
TMP-SMX	0.8	1.1	1.1	1.1	31	0.8	1.0	0.9	0.9	7	0.3	0.5	0.5	0.5	44
Cephalexin	0.2	0.4	0.5	0.4	83	0.2	0.4	0.4	0.3	50	0.	0.2	0.2	0.2	108
Amoxicillin	0.1	0.2	0.3	0.2	179	0.1	0.1	0.2	0.2	200	0.1	0.1	0.1	0.1	113

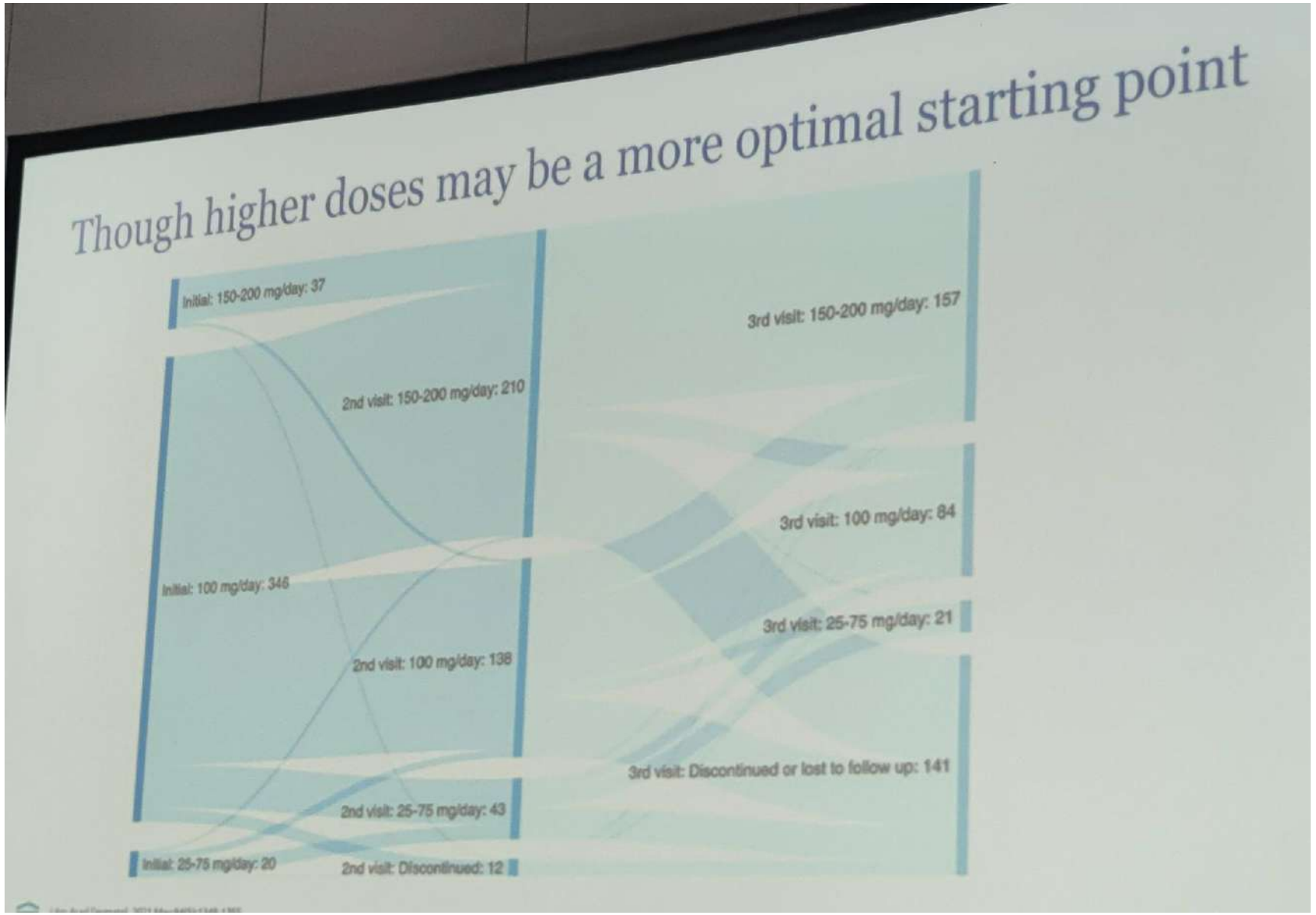
Abbreviations: NA, not applicable; TMP-SMX, trimethoprim-sulfamethoxazole.

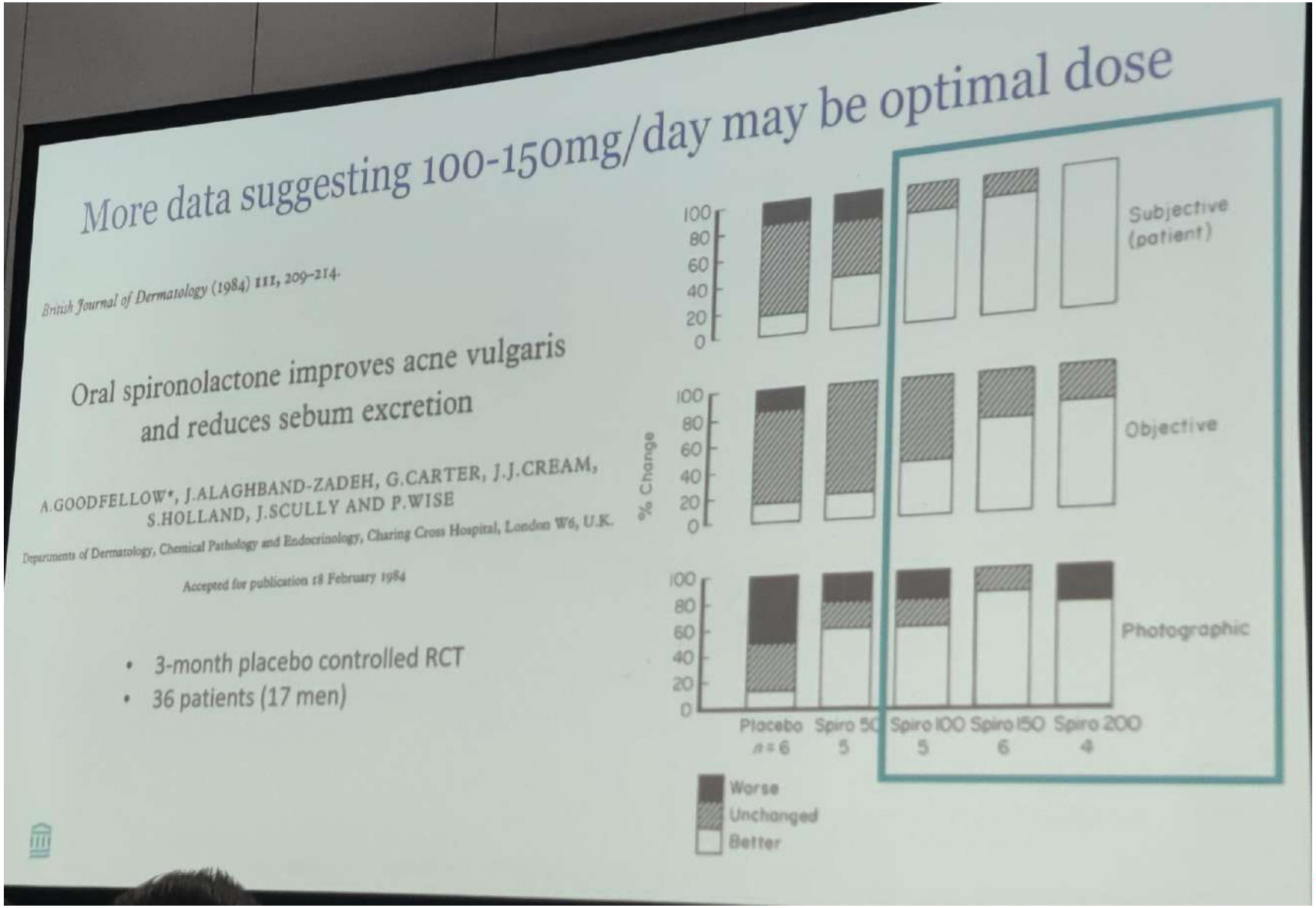

Patients are interested in non-antibiotic alternatives
50% had received an antibiotic during the past year for their acne
75% would prefer non-antibiotic to antibiotic treatment for acne
Yet only 30% were aware of non-antibiotic oral prescription options
Patient Awareness of Antimicrobial Resistance and Antibiotic Use in Acne Vulgaris
by JAMES Q. DEL ROSSO, DO; THEODORE ROSEN, MD; DIMITRY PALCESKI, DO; and MARIA JOSE RUEDA, MD
Dr. Del Rosso is with JDR Dermatology Research/Thomas Dermatology in Las Vegas, Nevada. Dr. Rosen is with Baylor College of Medicine in Houston, Texas. Dr. Palceski is with the Reflections Dermatology & Center for Skin Care in Orlando, Florida. Dr. Rueda is with Galderma Laboratories, LP in Fort Worth, Texas.
J Clin Aesthet Dermatol. 2019;12(6):30–41

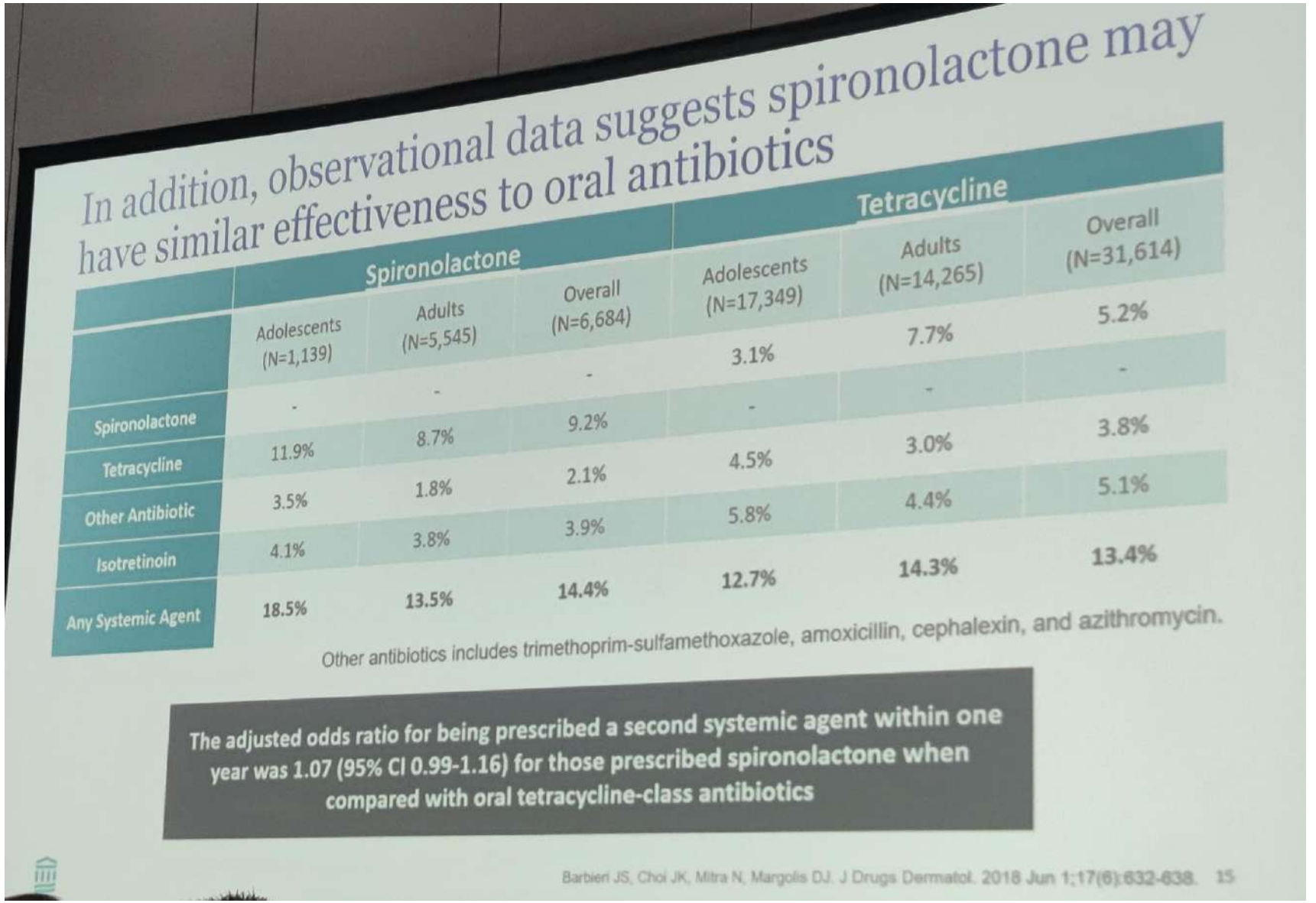

Increased use of hormonal treatments may represent an opportunity to decrease need for antibiotics
The Use of Hormonal Antiandrogen Therapy in Female Patients with Acne: A 10-Year Retrospective Study
Joyce H. Park[1] · Amanda Bienenfeld[2] · Seth J. Orlow[1] · Arielle R. Nagler[1]
• Single site, cross sectional, review of 3996 women treated for acne
• Those who received hormonal antiandrogen acne treatment (e.g. COC, spironolactone) received nearly 3 months fewer days of treatment with oral antibiotics than those who did not (225 vs 303 days)


However, hormonal treatments are often considered second line options for moderate to severe acne
Percentage of Patients on Therapy
80%
70%
60%
50%
40%
30%
20%
10%
0%
73%
64%
63%
55%
49%
44%
40%
38%
39%
33%
31%
31%
31%
23%
22%
12%
7%
3%
3%
2%
1
2
3
4
Therapeutic Step Number
N=287
N=239
N=131
N=73
Systemic Antibiotics
Spironolactone
Combined oral contraceptive pill (COC)
Isotretinoin
Hormonal antiandrogen acne treatment (COC or spironolactone)
Park JH, Bienenfeld A, Orlow SJ, Nagler AR. Am J Clin Dermatol. 2018 Jun;19(3):449-455.
Barbieri JS, Spaccarelli N, Margolis DJ, James WD. J Am Acad Dermatol. 2019 Feb;80(2):538-549.
6

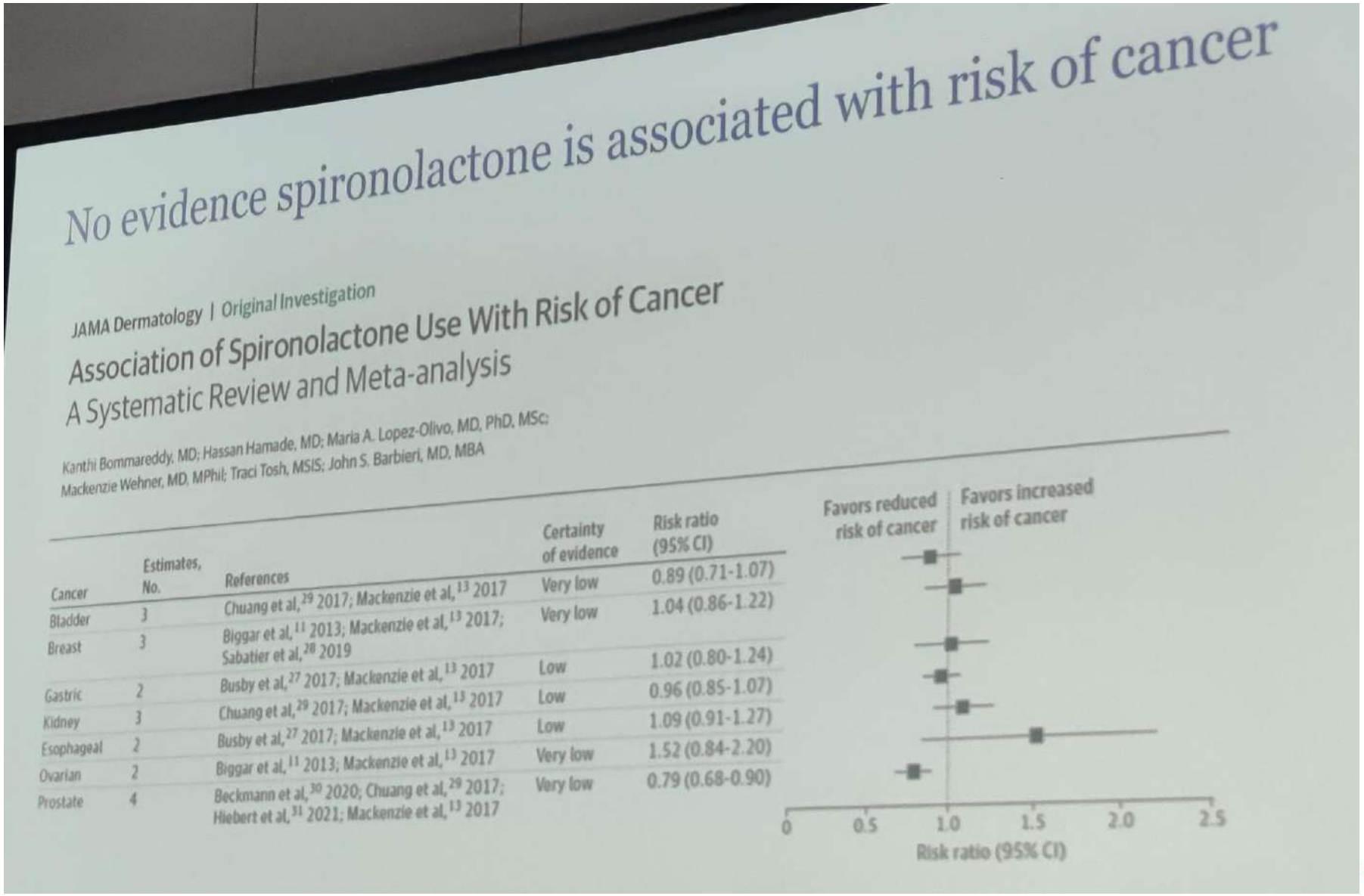

Doses as low as 25-50mg/day can work
Proportion of patients
100
80
60
40
20
0
*
*
30
40
75
30
40
75
Clear/almost clear
2 grade improvement
Placebo
SPL 25 mg
SPL 50 mg
*P = 0.01
Patiyasikunt et al. Efficacy and tolerability of low-dose spironolactone and topical benzoyl peroxide in adult female acne: A randomized, double-blind, placebo-controlled trial J Dermatol. 2020 Aug 28.


Though higher doses may be a more optimal starting point
Initial: 150-200 mg/day: 37
Initial: 100 mg/day: 346
Initial: 25-75 mg/day: 20
2nd visit: 150-200 mg/day: 210
2nd visit: 100 mg/day: 138
2nd visit: 25-75 mg/day: 43
2nd visit: Discontinued: 12
3rd visit: 150-200 mg/day: 157
3rd visit: 100 mg/day: 84
3rd visit: 25-75 mg/day: 21
3rd visit: Discontinued or lost to follow up: 141


More data suggesting 100-150mg/day may be optimal dose
British Journal of Dermatology (1984) 111, 209–214.
Oral spironolactone improves acne vulgaris and reduces sebum excretion
A.GOODFELLOW*, J.ALAGHBAND-ZADEH, G.CARTER, J.J.CREAM, S.HOLLAND, J.SCULLY AND P.WISE
Departments of Dermatology, Chemical Pathology and Endocrinology, Charing Cross Hospital, London W6, U.K.
Accepted for publication 18 February 1984
• 3-month placebo controlled RCT
• 36 patients (17 men)
% Change
100
80
60
40
20
0
Subjective (patient)
Objective
Photographic
Placebo n = 6
Spiro 50 5
Spiro 100 5
Spiro 150 6
Spiro 200 4
Worse
Unchanged
Better



	Spironolactone			Tetracycline		
	Adolescents (N=1,139)	Adults (N=5,545)	Overall (N=6,684)	Adolescents (N=17,349)	Adults (N=14,265)	Overall (N=31,614)
Spironolactone	-	-	-	-	-	-
Tetracycline	11.9%	8.7%	9.2%	3.1%	7.7%	5.2%
Other Antibiotic	3.5%	1.8%	2.1%	4.5%	3.0%	3.8%
Isotretinoin	4.1%	3.8%	3.9%	5.8%	4.4%	5.1%
Any Systemic Agent	**18.5%**	**13.5%**	**14.4%**	**12.7%**	**14.3%**	**13.4%**



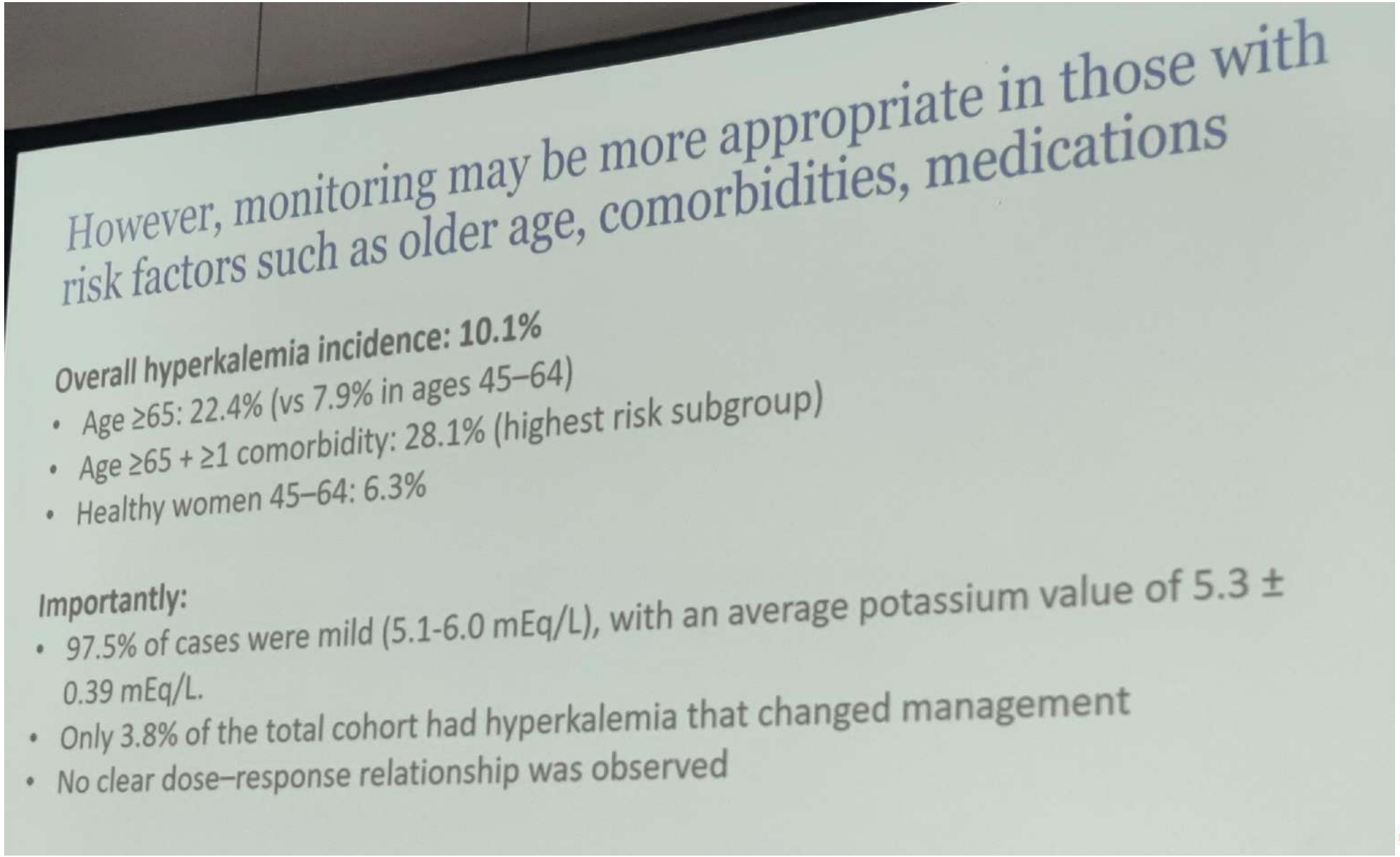
No evidence spironolactone is associated with risk of cancer

JAMA Dermatology | Original Investigation

Association of Spironolactone Use With Risk of Cancer
A Systematic Review and Meta-analysis

Kanthi Bommareddy, MD; Hassan Hamade, MD; Maria A. Lopez-Olivo, MD, PhD, MSc; Mackenzie Wehner, MD, MPhil; Traci Tosh, MSIS; John S. Barbieri, MD, MBA

Cancer	Estimates, No.	References	Certainty of evidence	Risk ratio (95% CI)
Bladder	3	Chuang et al,[29] 2017; Mackenzie et al,[13] 2017	Very low	0.89 (0.71-1.07)
Breast	3	Biggar et al,[11] 2013; Mackenzie et al,[13] 2017; Sabatier et al,[28] 2019	Very low	1.04 (0.86-1.22)
Gastric	2	Busby et al,[27] 2017; Mackenzie et al,[13] 2017	Low	1.02 (0.80-1.24)
Kidney	3	Chuang et al,[29] 2017; Mackenzie et al,[13] 2017	Low	0.96 (0.85-1.07)
Esophageal	2	Busby et al,[27] 2017; Mackenzie et al,[13] 2017	Low	1.09 (0.91-1.27)
Ovarian	2	Biggar et al,[11] 2013; Mackenzie et al,[13] 2017	Very low	1.52 (0.84-2.20)
Prostate	4	Beckmann et al,[30] 2020; Chuang et al,[29] 2017; Hiebert et al,[31] 2021; Mackenzie et al,[13] 2017	Very low	0.79 (0.68-0.90)

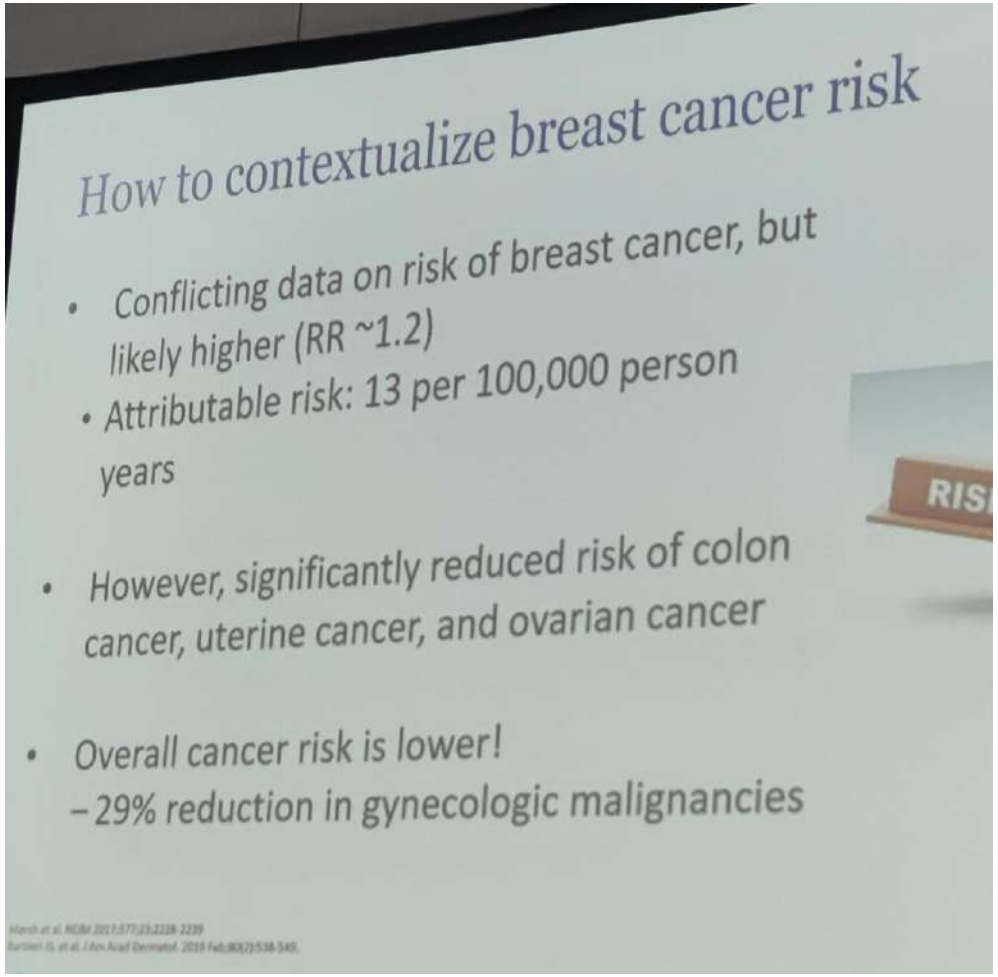

However, monitoring may be more appropriate in those with risk factors such as older age, comorbidities, medications
Overall hyperkalemia incidence: 10.1%
• Age ≥65: 22.4% (vs 7.9% in ages 45–64)
• Age ≥65 + ≥1 comorbidity: 28.1% (highest risk subgroup)
• Healthy women 45–64: 6.3%
Importantly:
• 97.5% of cases were mild (5.1-6.0 mEq/L), with an average potassium value of 5.3 ± 0.39 mEq/L.
• Only 3.8% of the total cohort had hyperkalemia that changed management
• No clear dose–response relationship was observed

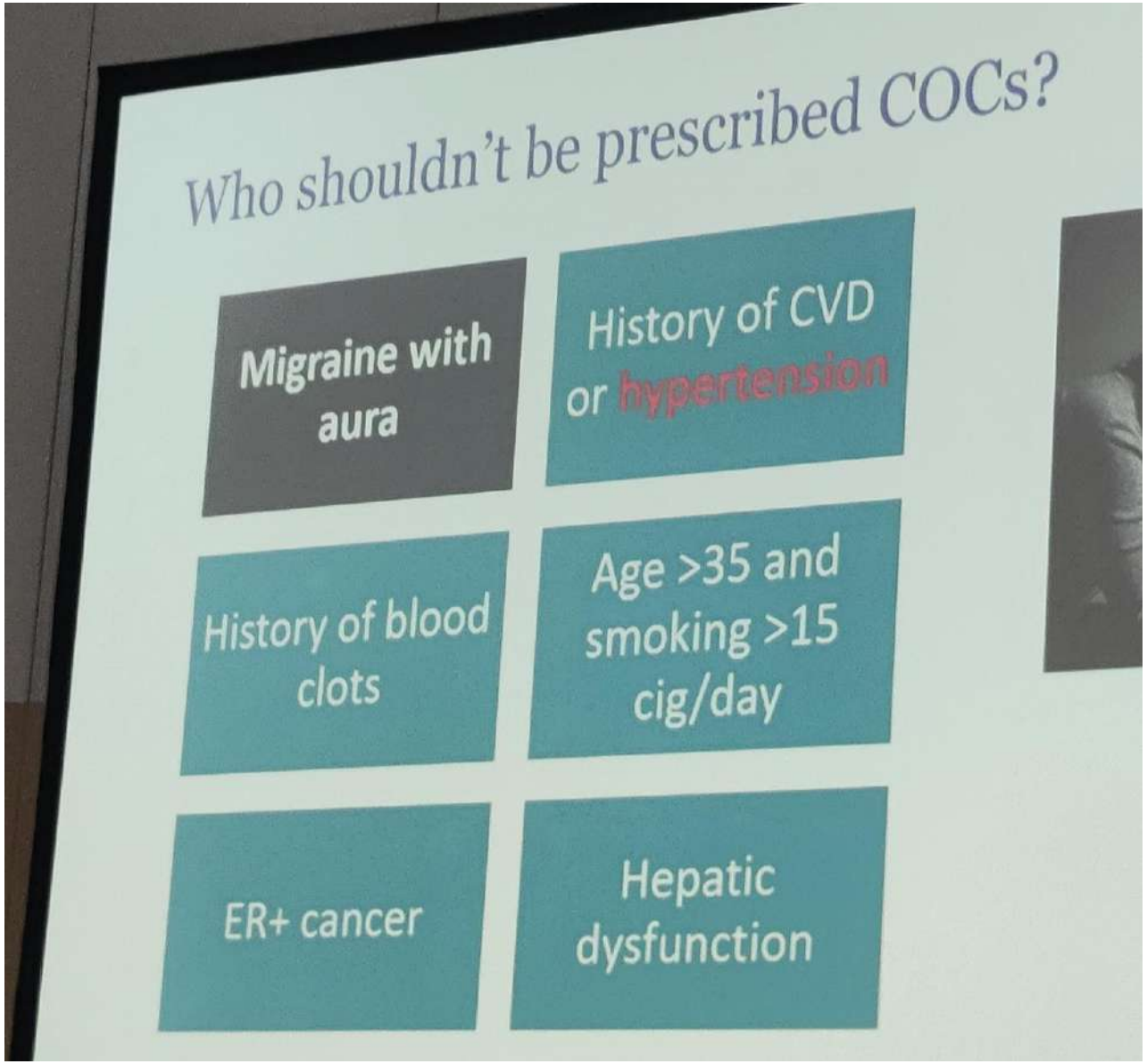
The timing of monitoring is often not optimal

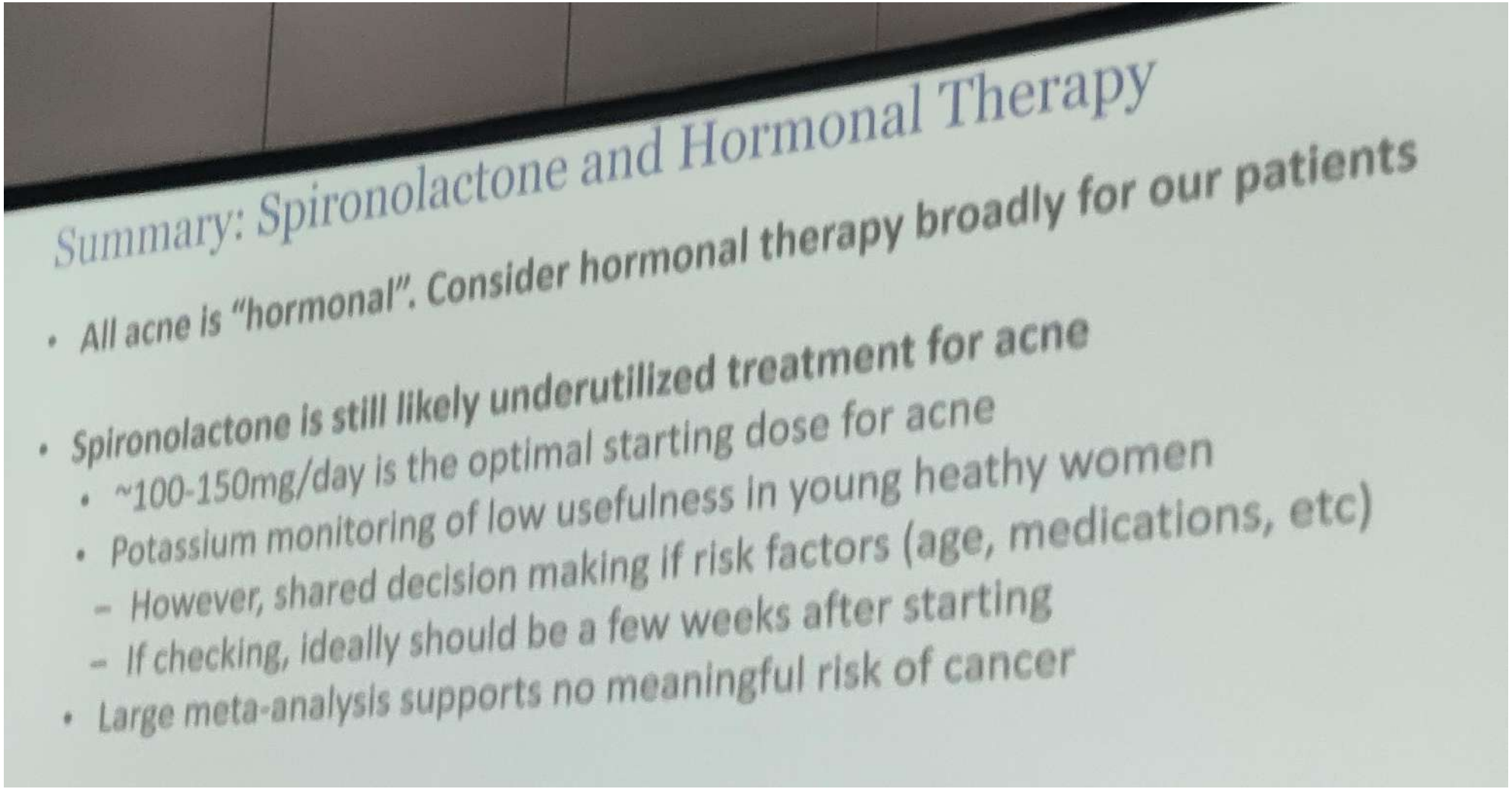
Table I. Characteristics of serum potassium monitoring in females on spironolactone for acne

Variable	All (*n* = 32,234)	12-19 years (*n* = 5355)	20-29 years (*n* = 11,872)	30-44 years (*n* = 10,215)	≥45 years (*n* = 4792)
Age, mean (SD), y	31.3 (11.6)	17.0 (1.4)	24.3 (2.7)	37.1 (4.3)	51.5 (5.1)
Spironolactone course duration, mean (SD), d	269.7 (200.4)	257.2 (177.8)	257.7 (179.8)	276.8 (212.4)	297.9 (236.9)
Females with pretreatment serum potassium measurement, %	35.7%	22.3%	30.2%	40.1%	54.7%
Females with serum potassium measurement during spironolactone course, %	31.1%	22.4%	27.7%	33.7%	43.3%
Females with ≥2 serum potassium measurements during spironolactone course, %	10.1%	6.0%	8.0%	11.4%	17.2%
Time to first serum potassium measurement after starting spironolactone, mean (SD), d	118 (130)	119 (126)	117 (124)	120 (137)	114 (131)
Time to second serum potassium measurement after the first measurement, mean (SD), d	113 (128)	102 (117)	105 (124)	119 (133)	119 (130)
Females with a serum potassium measurement within 7 days after starting spironolactone*, %	5.5%	5.2%	5.1%	5.3%	6.8%
Females with a serum potassium measurement within 14 days after starting spironolactone*, %	10.7%	9.3%	9.9%	10.4%	13.4%
Females with a serum potassium measurement within 30 days after starting spironolactone*, %	23.7%	21.6%	22.3%	24.0%	26.6%

ANTICONCEPTIVOS ORALES Y RIESGO DE CÁNCER

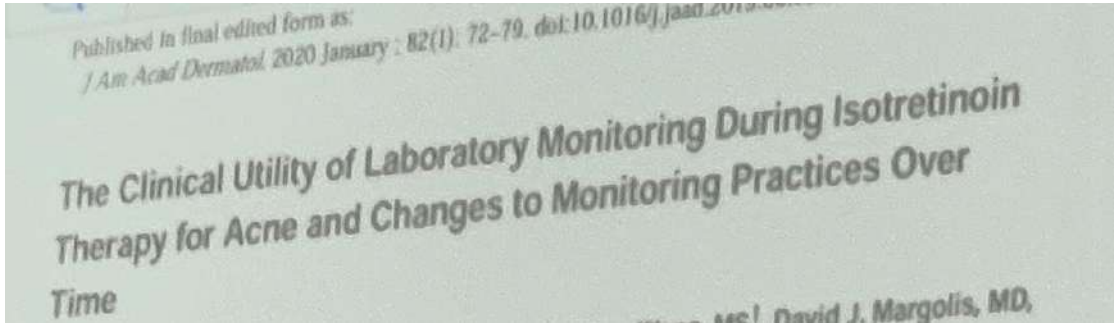



Who shouldn't be prescribed COCs?
Migraine with aura
History of CVD or hypertension
History of blood clots
Age >35 and smoking >15 cig/day
ER+ cancer
Hepatic dysfunction


Summary: Spironolactone and Hormonal Therapy
• All acne is "hormonal". Consider hormonal therapy broadly for our patients
• Spironolactone is still likely underutilized treatment for acne
• ~100-150mg/day is the optimal starting dose for acne
• Potassium monitoring of low usefulness in young heathy women
– However, shared decision making if risk factors (age, medications, etc)
– If checking, ideally should be a few weeks after starting
• Large meta-analysis supports no meaningful risk of cancer

Update on Isotretinoin

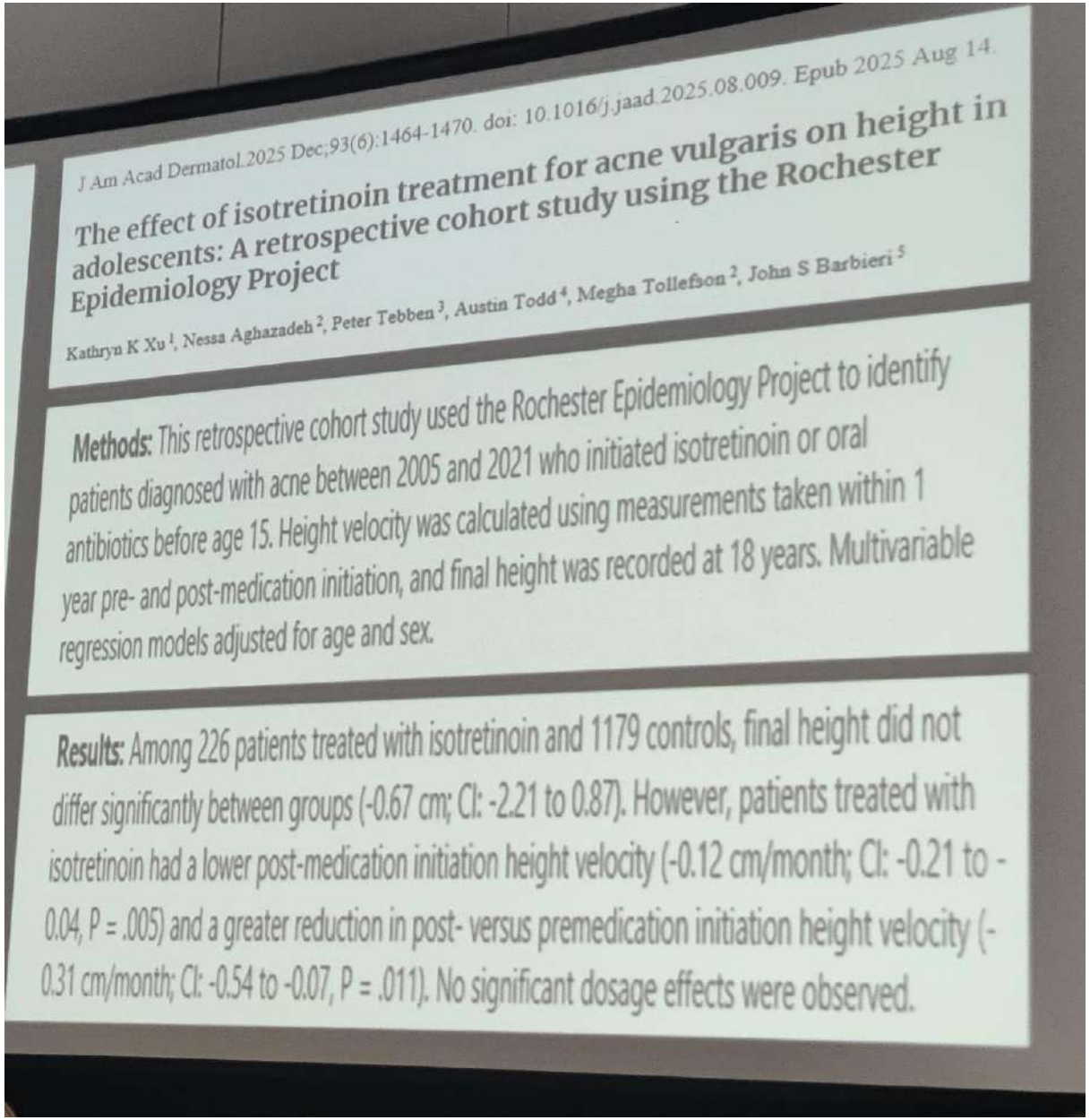
James Q. del Rosso


Published in final edited form as:
J Am Acad Dermatol. 2020 January ; 82(1): 72–79. doi:10.1016/j.jaad.

The Clinical Utility of Laboratory Monitoring During Isotretinoin Therapy for Acne and Changes to Monitoring Practices Over Time

David J. Margolis, MD,

A pesar de que las variaciones analíticas con isotretinoína son raras, solicitar analíticas periódicas a los pacientes es una práctica común



J Am Acad Dermatol. 2025 Dec;93(6):1464-1470. doi: 10.1016/j.jaad.2025.08.009. Epub 2025 Aug 14.

The effect of isotretinoin treatment for acne vulgaris on height in adolescents: A retrospective cohort study using the Rochester Epidemiology Project

Kathryn K Xu [1], Nessa Aghazadeh [2], Peter Tebben [3], Austin Todd [4], Megha Tollefson [2], John S Barbieri [5]

Methods: This retrospective cohort study used the Rochester Epidemiology Project to identify patients diagnosed with acne between 2005 and 2021 who initiated isotretinoin or oral antibiotics before age 15. Height velocity was calculated using measurements taken within 1 year pre- and post-medication initiation, and final height was recorded at 18 years. Multivariable regression models adjusted for age and sex.

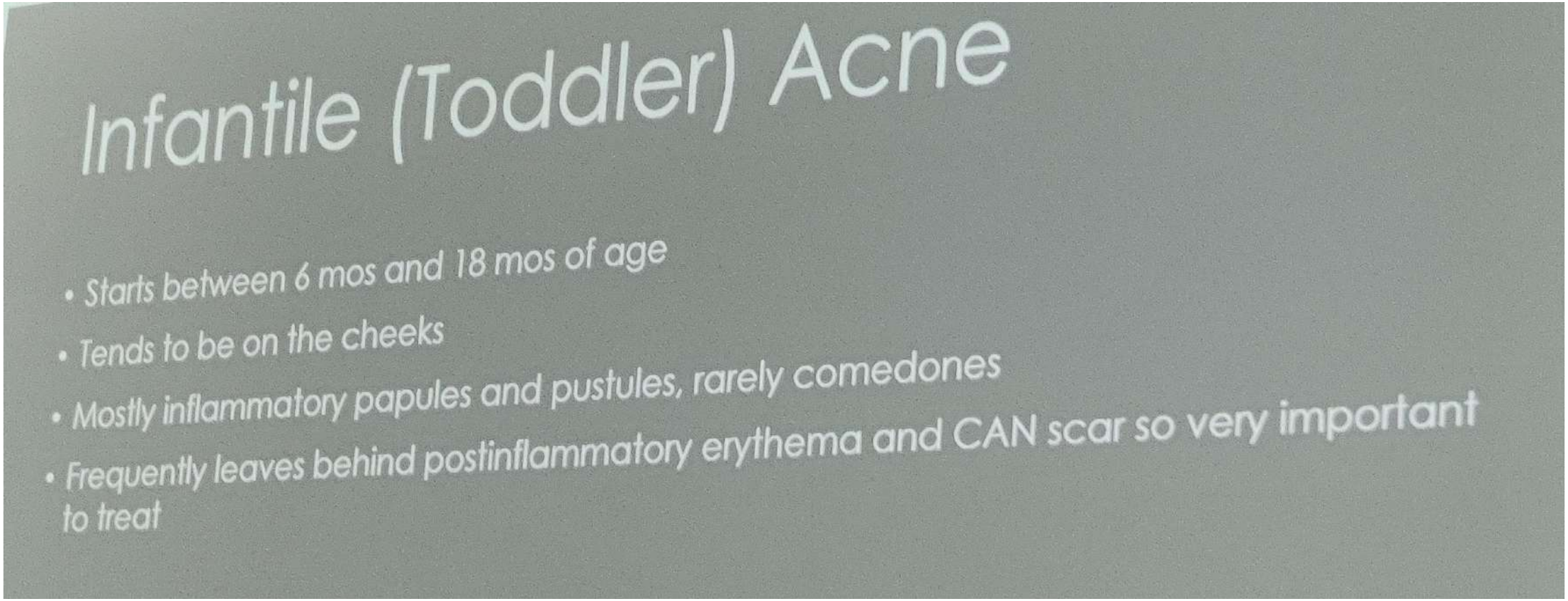
Results: Among 226 patients treated with isotretinoin and 1179 controls, final height did not differ significantly between groups (-0.67 cm; CI: -2.21 to 0.87). However, patients treated with isotretinoin had a lower post-medication initiation height velocity (-0.12 cm/month; CI: -0.21 to -0.04, P = .005) and a greater reduction in post- versus premedication initiation height velocity (-0.31 cm/month; CI: -0.54 to -0.07, P = .011). No significant dosage effects were observed.

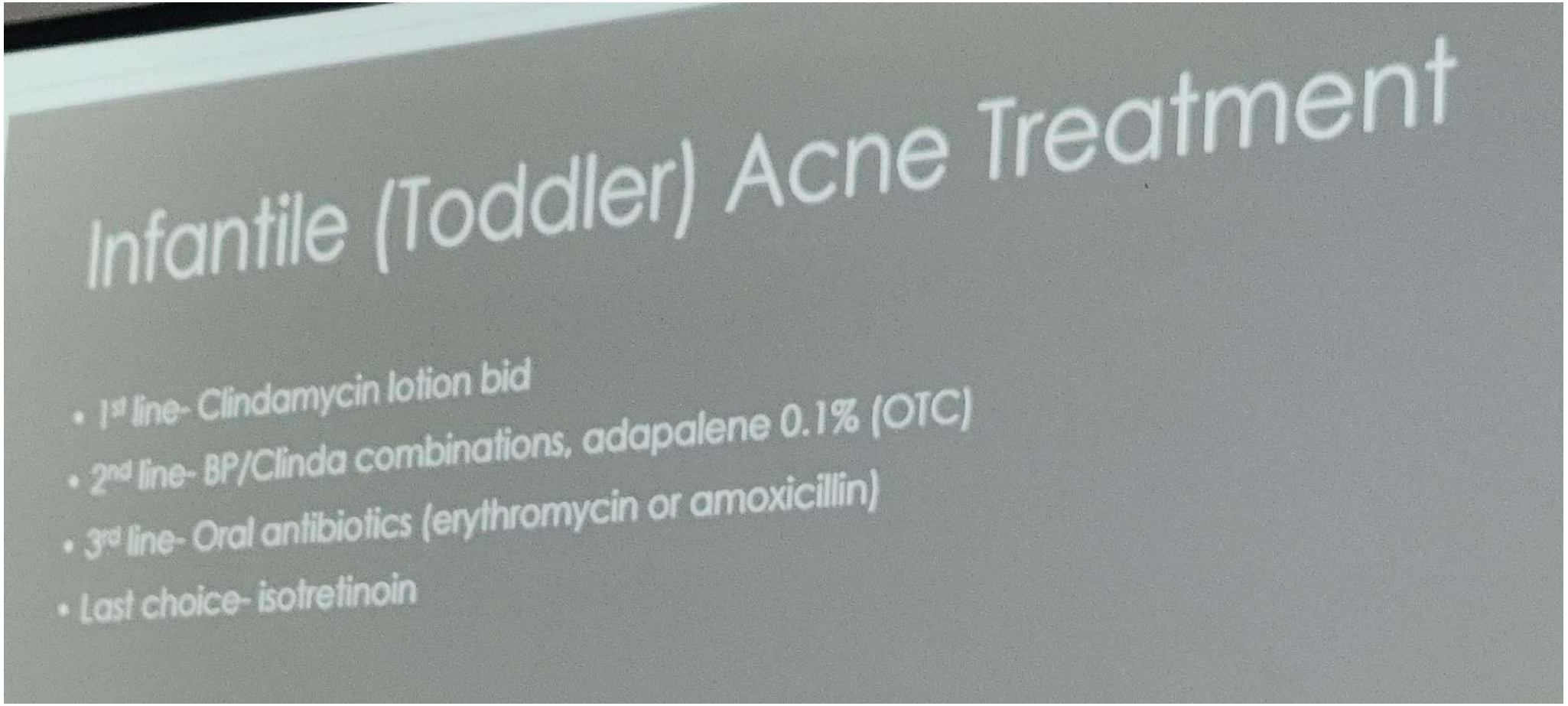
Acne in Kiddos: Special Considerations

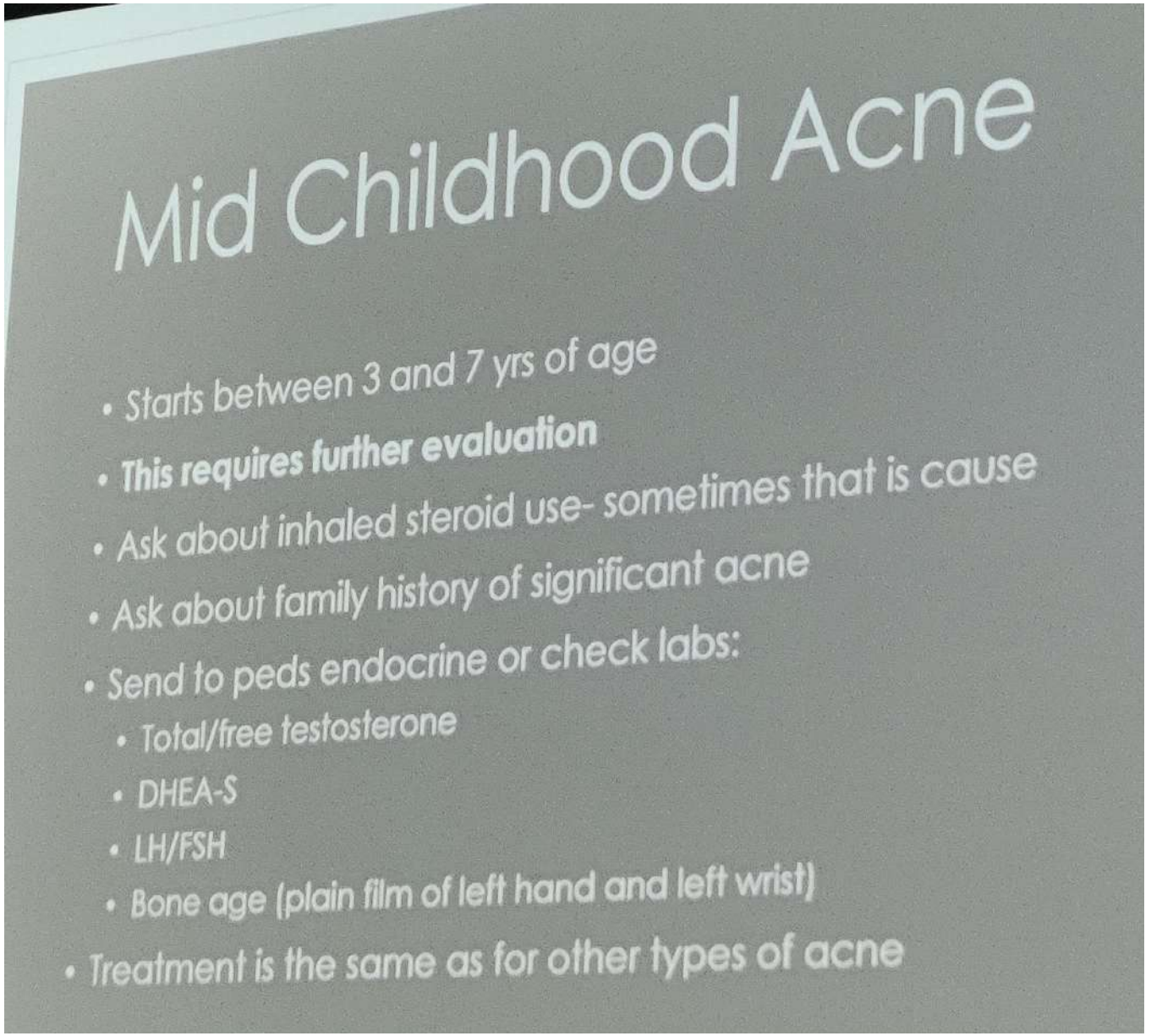
Elizabeth A. Swanson

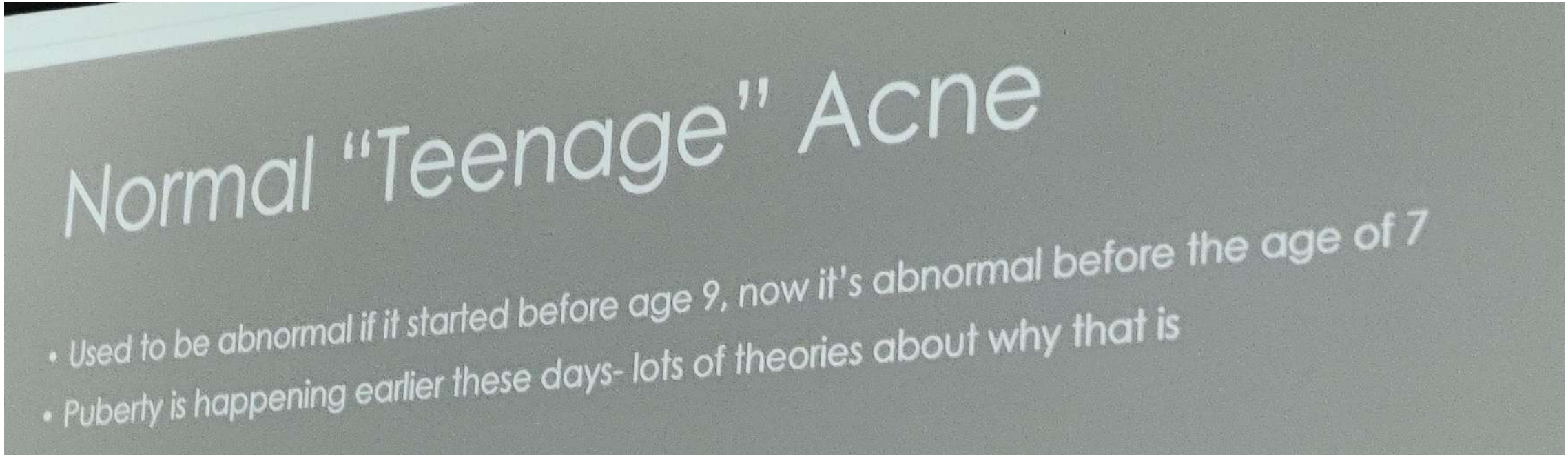
Neonatal Acne

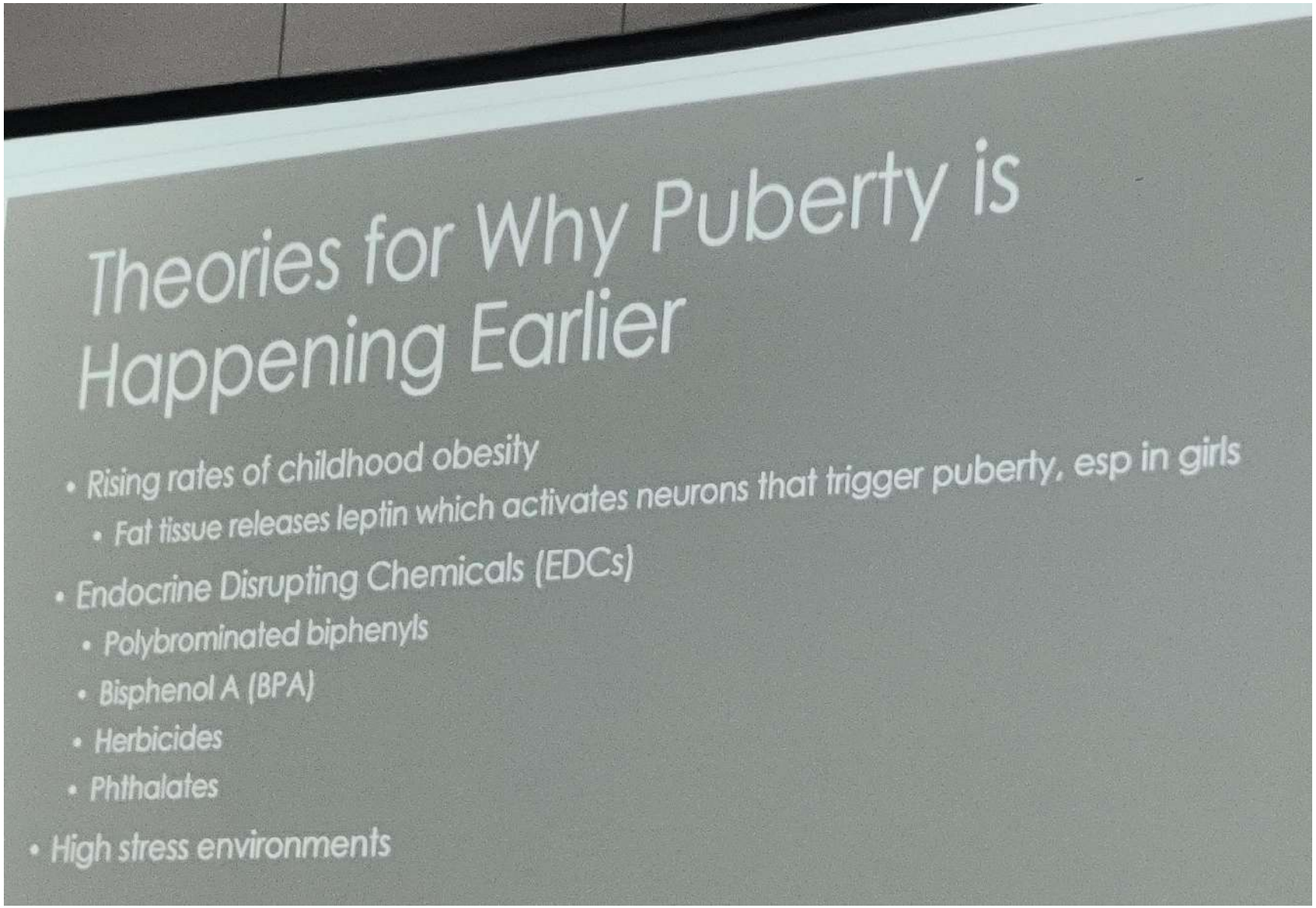
- Onset within first few weeks of life
- Teeny pink/red papules and pustules involving face and scalp. Sometimes chest and back too.
- 2 different schools of thought about pathogenesis:
  - Increased production of DHEA by fetal adrenal glands and neonatal testes
  - Malassezia furfur overgrowth (neonatal cephalic pustulosis)
- Regresses spontaneously over 3-6 mos
- No treatment is needed

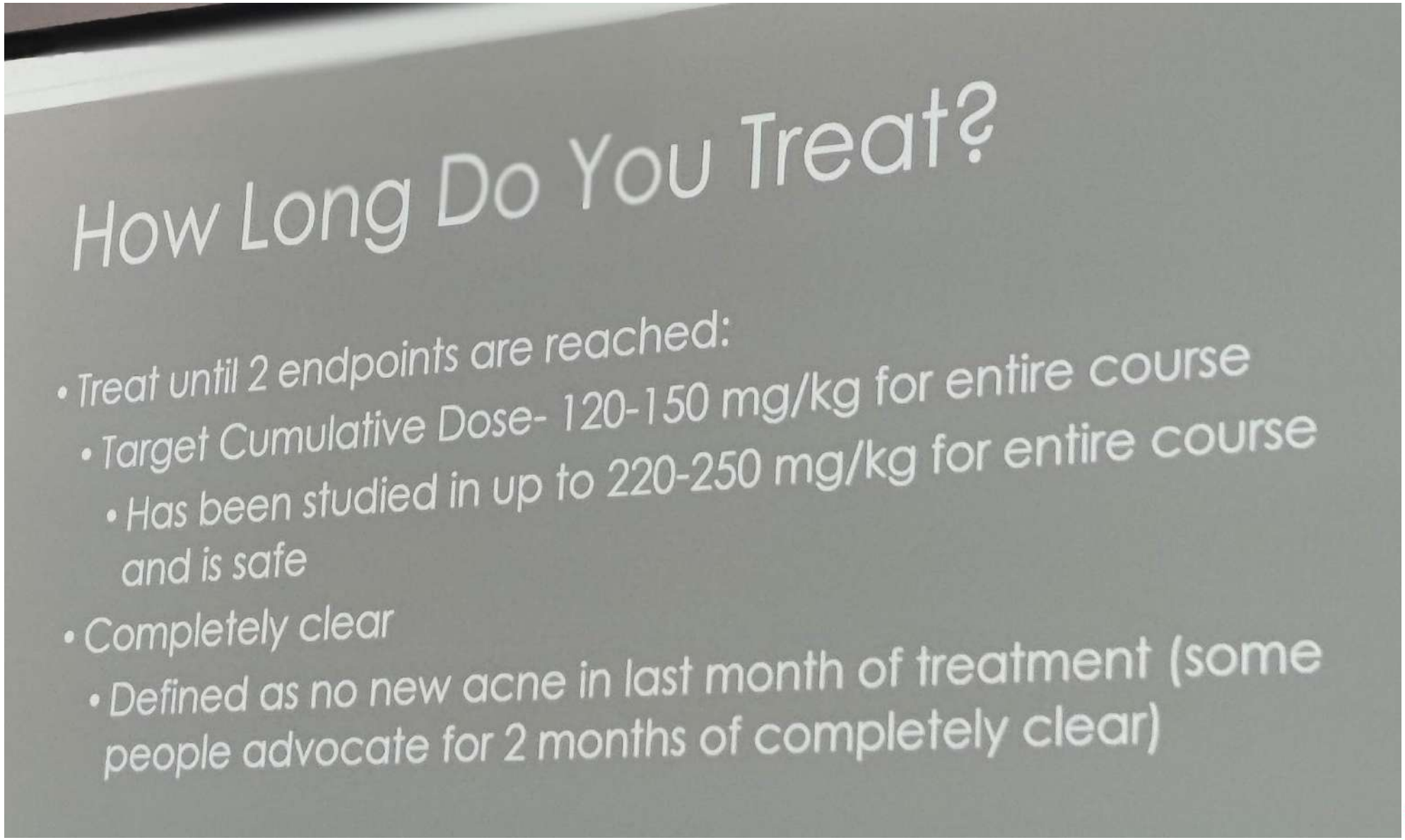

Infantile (Toddler) Acne
• Starts between 6 mos and 18 mos of age
• Tends to be on the cheeks
• Mostly inflammatory papules and pustules, rarely comedones
• Frequently leaves behind postinflammatory erythema and CAN scar so very important to treat

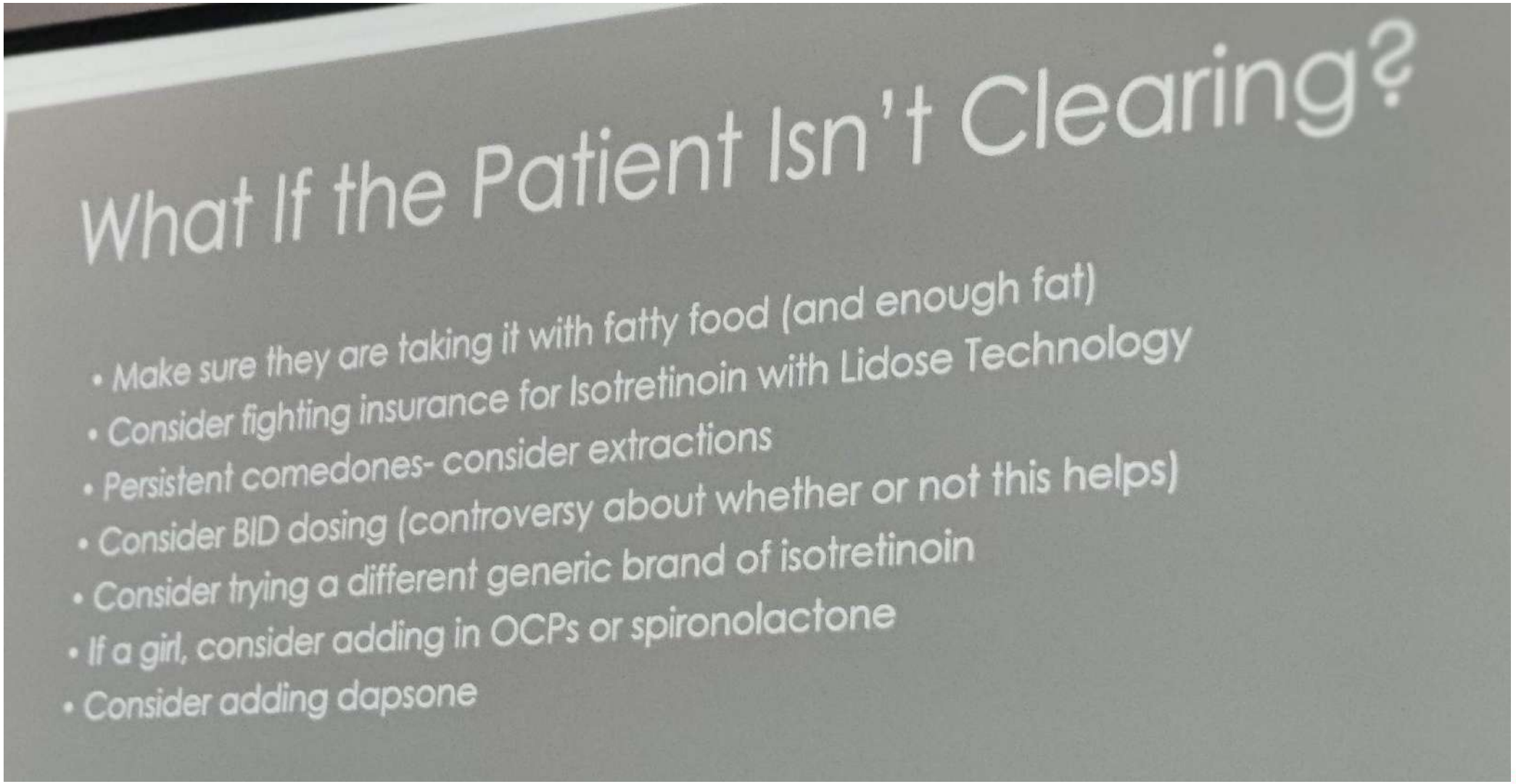

Infantile (Toddler) Acne Treatment
• 1st line- Clindamycin lotion bid
• 2nd line- BP/Clinda combinations, adapalene 0.1% (OTC)
• 3rd line- Oral antibiotics (erythromycin or amoxicillin)
• Last choice- isotretinoin

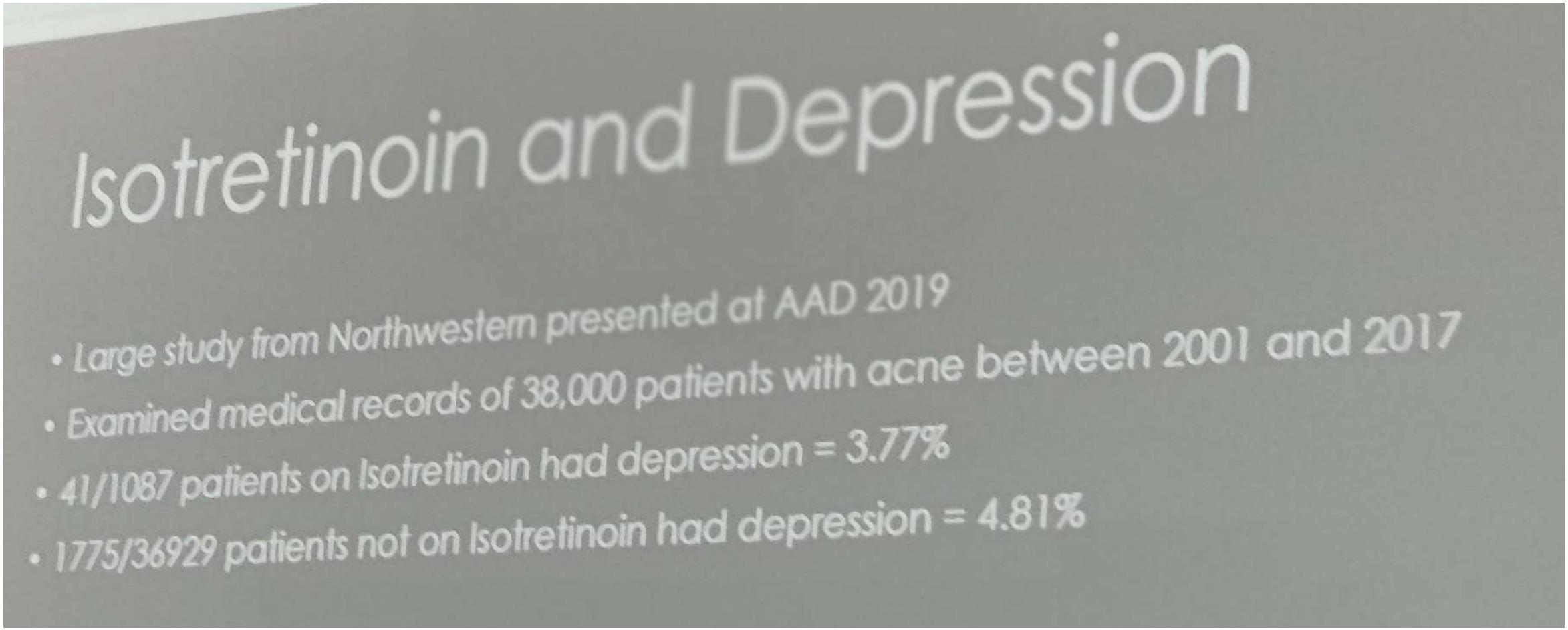

Mid Childhood Acne
• Starts between 3 and 7 yrs of age
• This requires further evaluation
• Ask about inhaled steroid use- sometimes that is cause
• Ask about family history of significant acne
• Send to peds endocrine or check labs:
• Total/free testosterone
• DHEA-S
• LH/FSH
• Bone age (plain film of left hand and left wrist)
• Treatment is the same as for other types of acne

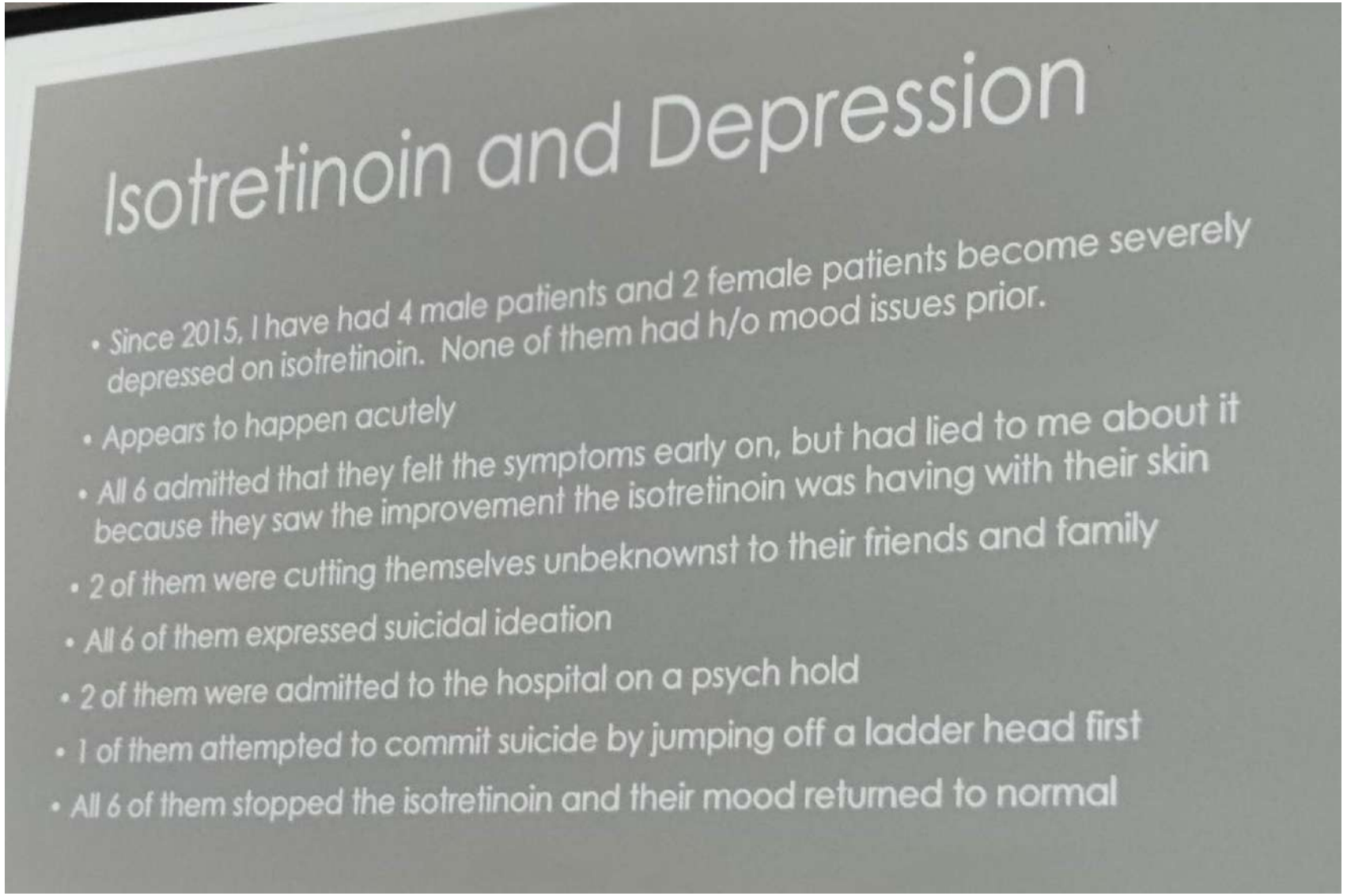

Normal "Teenage" Acne
• Used to be abnormal if it started before age 9, now it's abnormal before the age of 7
• Puberty is happening earlier these days- lots of theories about why that is

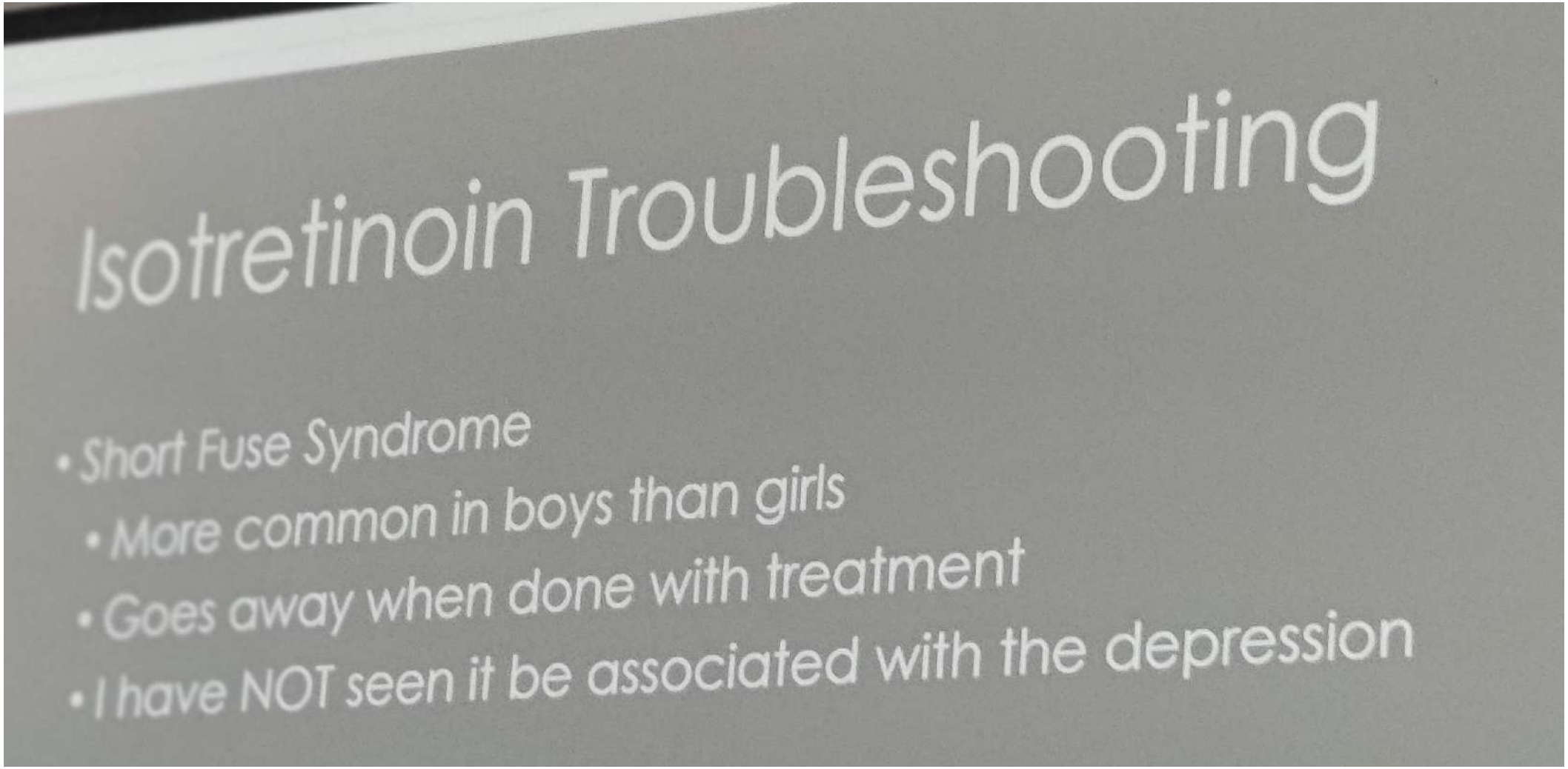

Theories for Why Puberty is Happening Earlier
• Rising rates of childhood obesity
• Fat tissue releases leptin which activates neurons that trigger puberty, esp in girls
• Endocrine Disrupting Chemicals (EDCs)
• Polybrominated biphenyls
• Bisphenol A (BPA)
• Herbicides
• Phthalates
• High stress environments

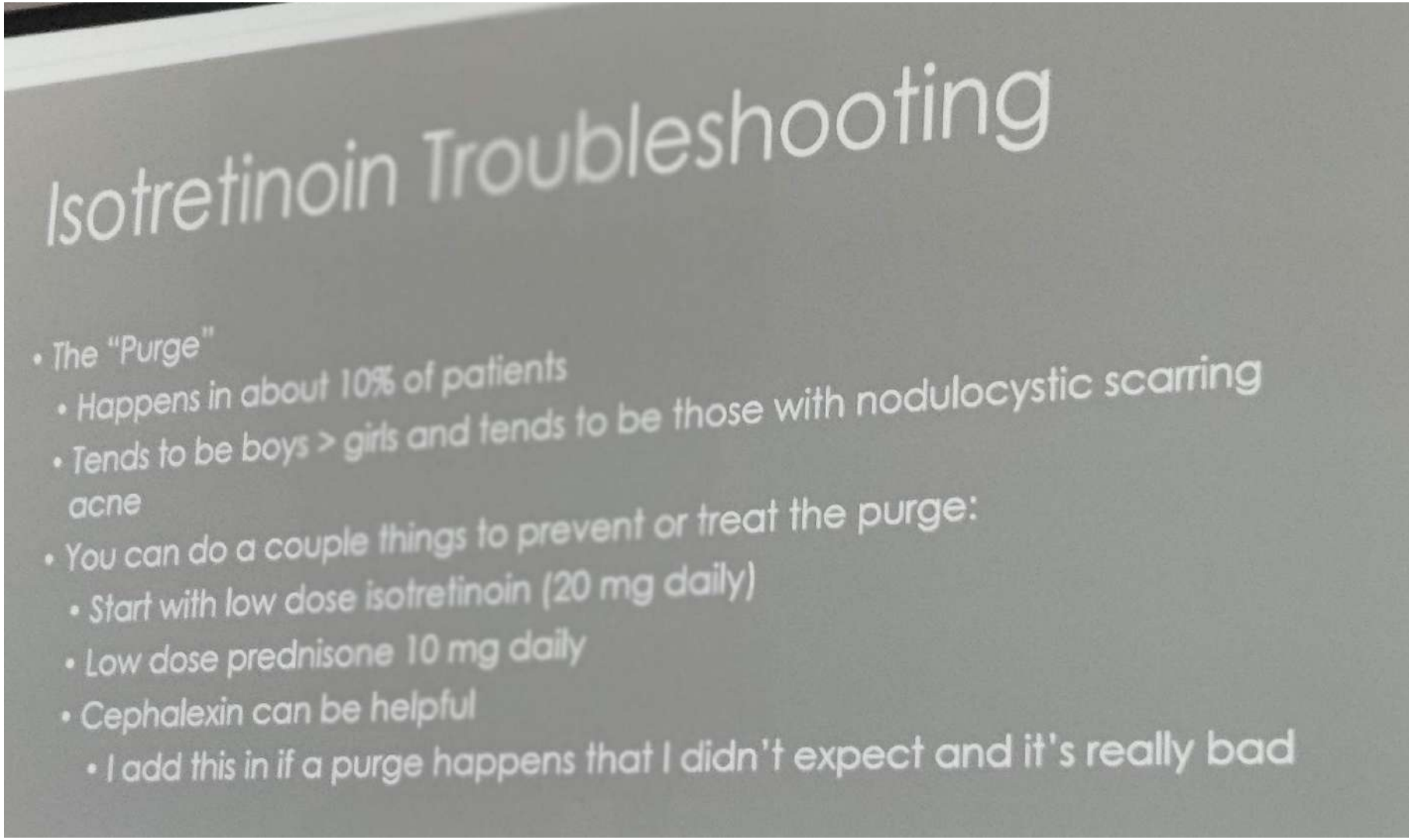

How Long Do You Treat?
• Treat until 2 endpoints are reached:
• Target Cumulative Dose- 120-150 mg/kg for entire course
• Has been studied in up to 220-250 mg/kg for entire course and is safe
• Completely clear
• Defined as no new acne in last month of treatment (some people advocate for 2 months of completely clear)

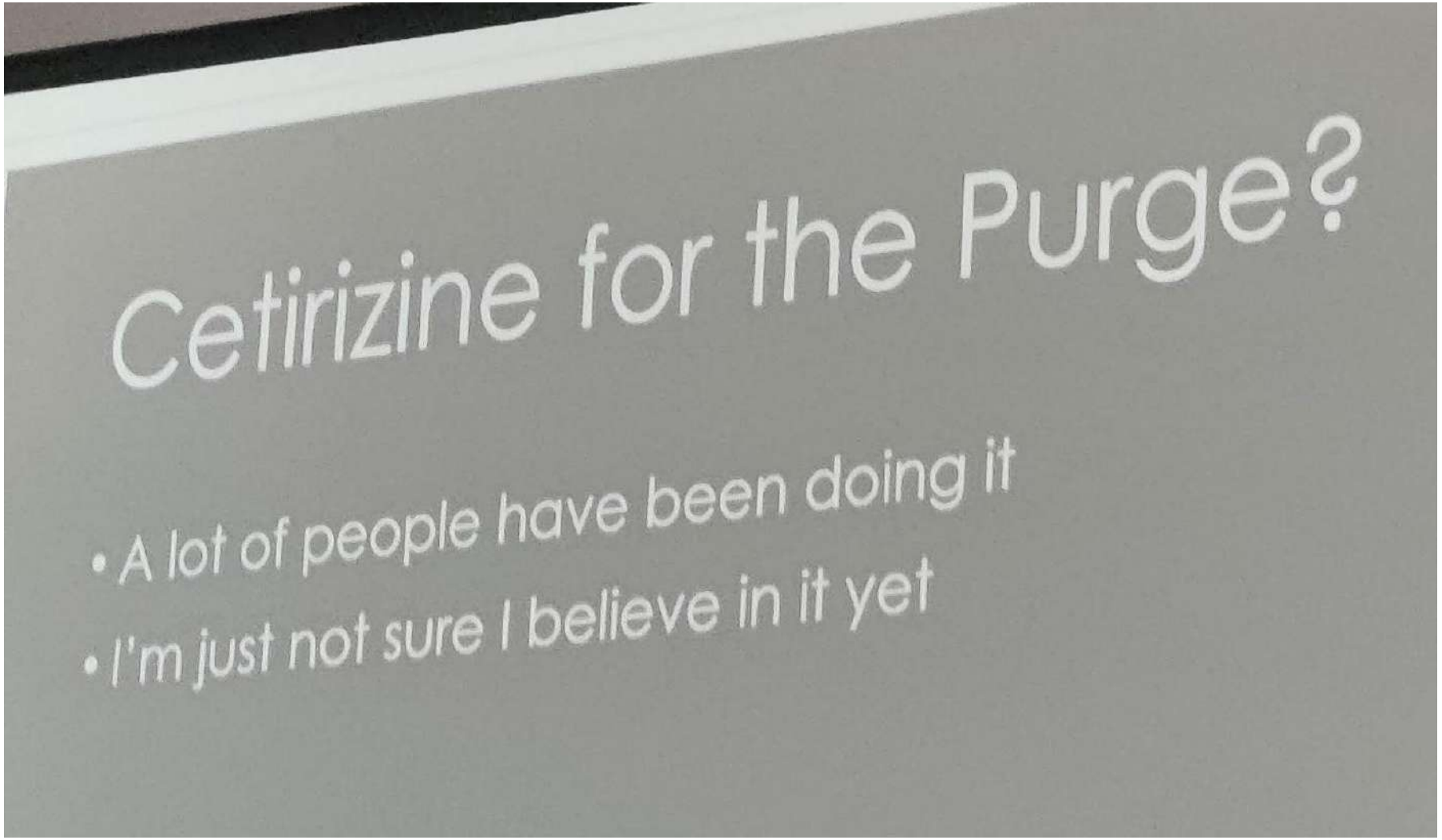

What If the Patient Isn't Clearing?
• Make sure they are taking it with fatty food (and enough fat)
• Consider fighting insurance for Isotretinoin with Lidose Technology
• Persistent comedones- consider extractions
• Consider BID dosing (controversy about whether or not this helps)
• Consider trying a different generic brand of isotretinoin
• If a girl, consider adding in OCPs or spironolactone
• Consider adding dapsone

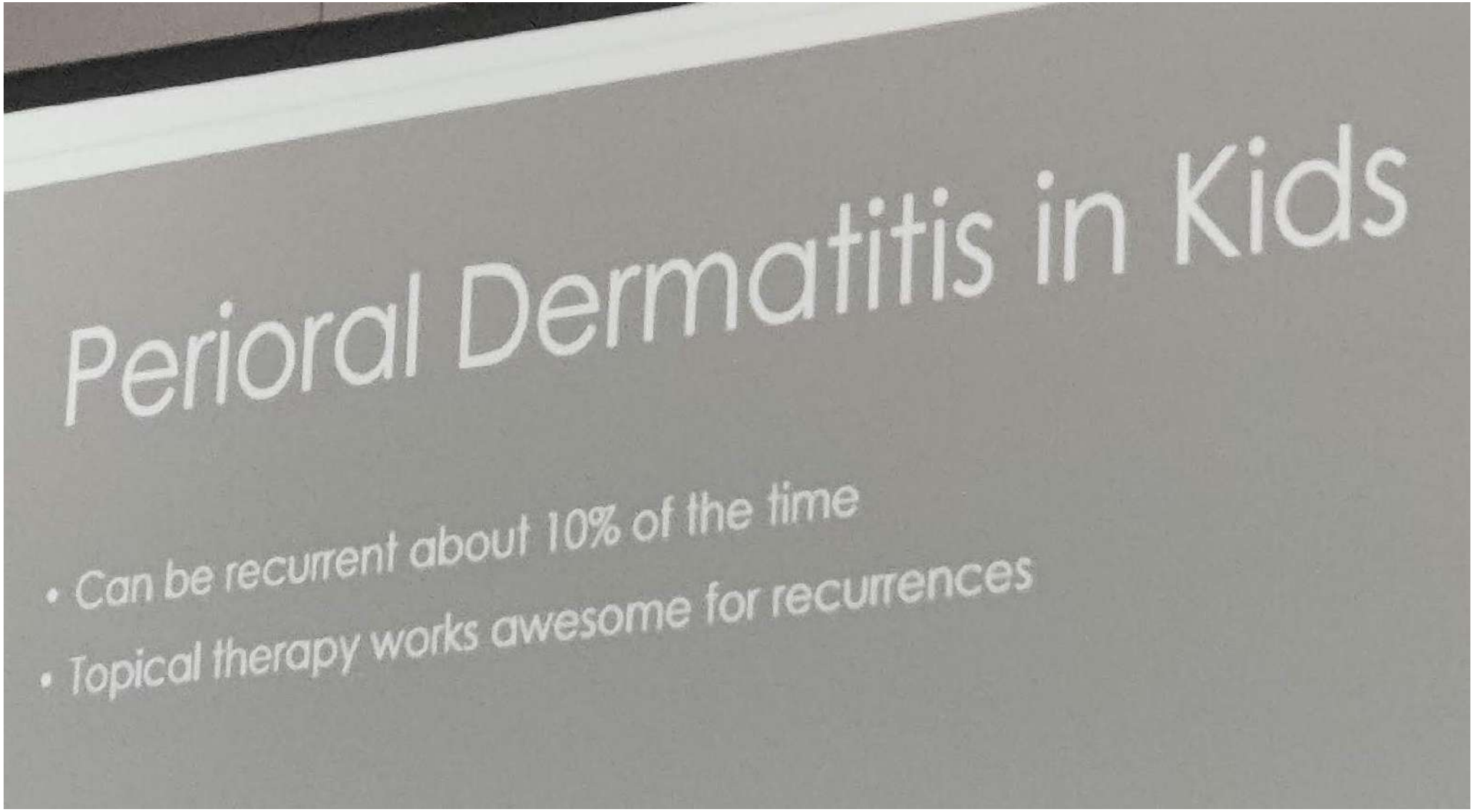

Isotretinoin and Depression
• Large study from Northwestern presented at AAD 2019
• Examined medical records of 38,000 patients with acne between 2001 and 2017
• 41/1087 patients on Isotretinoin had depression = 3.77%
• 1775/36929 patients not on Isotretinoin had depression = 4.81%

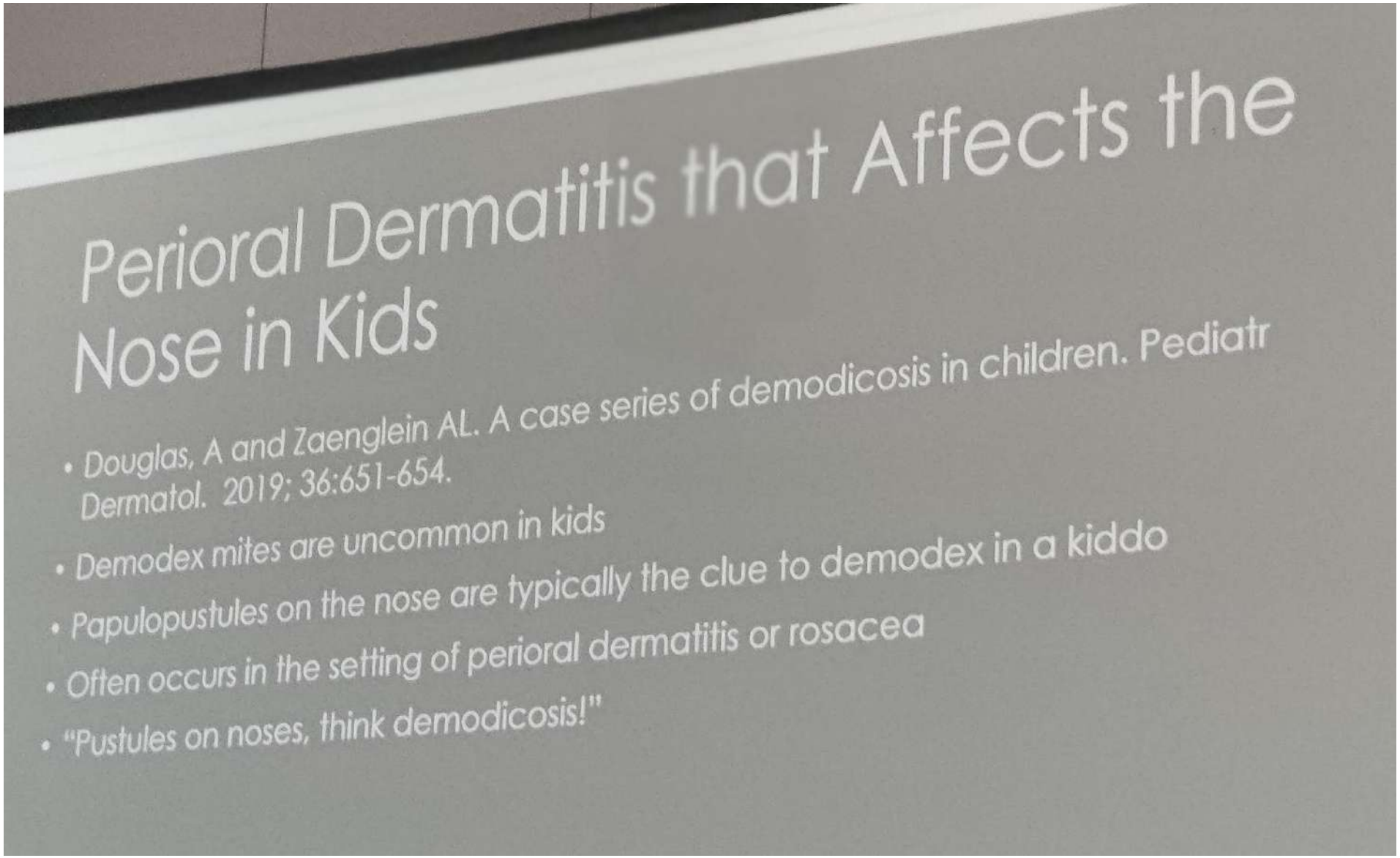

Isotretinoin and Depression
• Since 2015, I have had 4 male patients and 2 female patients become severely depressed on isotretinoin. None of them had h/o mood issues prior.
• Appears to happen acutely
• All 6 admitted that they felt the symptoms early on, but had lied to me about it because they saw the improvement the isotretinoin was having with their skin
• 2 of them were cutting themselves unbeknownst to their friends and family
• All 6 of them expressed suicidal ideation
• 2 of them were admitted to the hospital on a psych hold
• 1 of them attempted to commit suicide by jumping off a ladder head first
• All 6 of them stopped the isotretinoin and their mood returned to normal

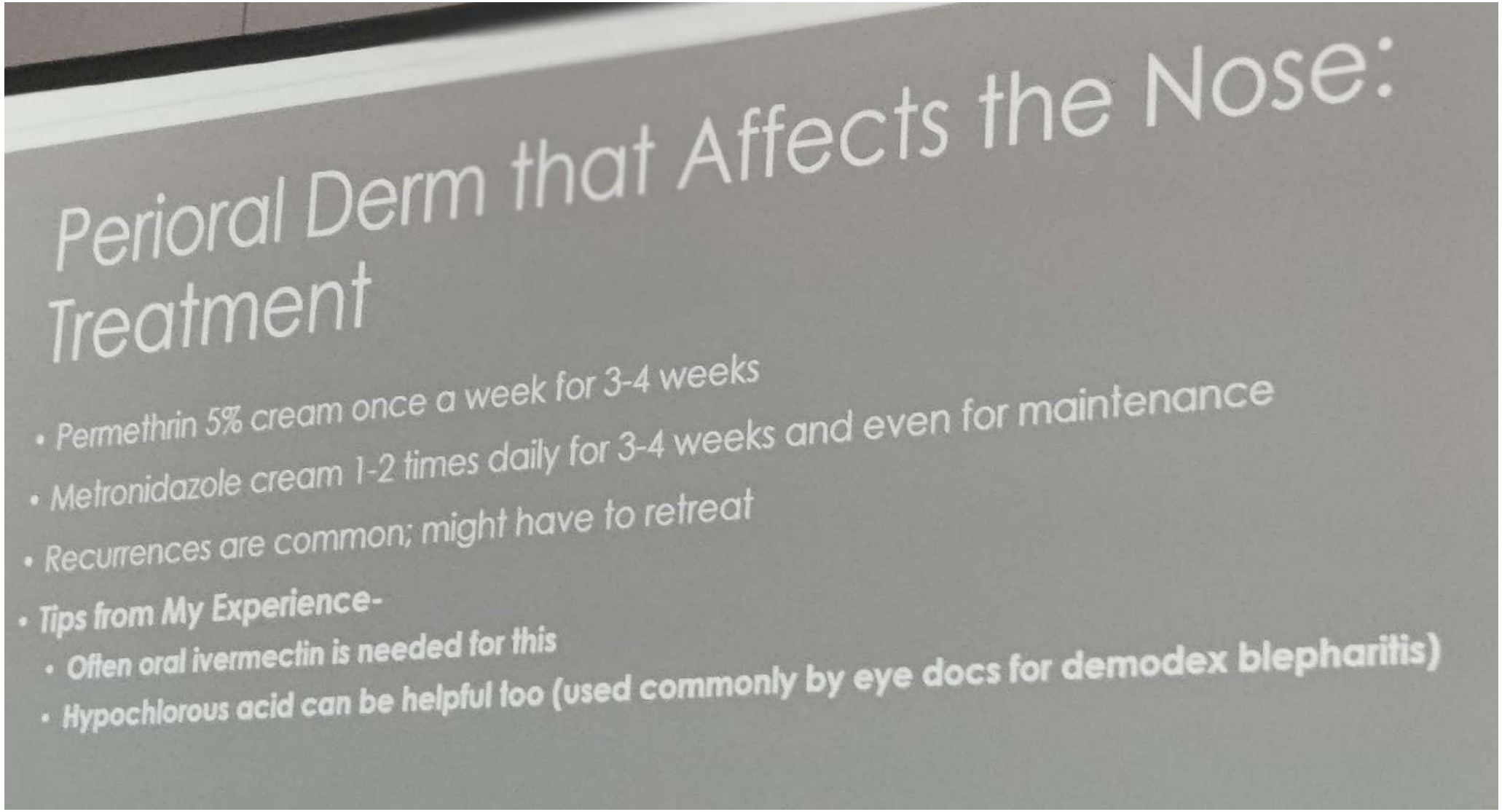

Isotretinoin Troubleshooting
• Short Fuse Syndrome
• More common in boys than girls
• Goes away when done with treatment
• I have NOT seen it be associated with the depression

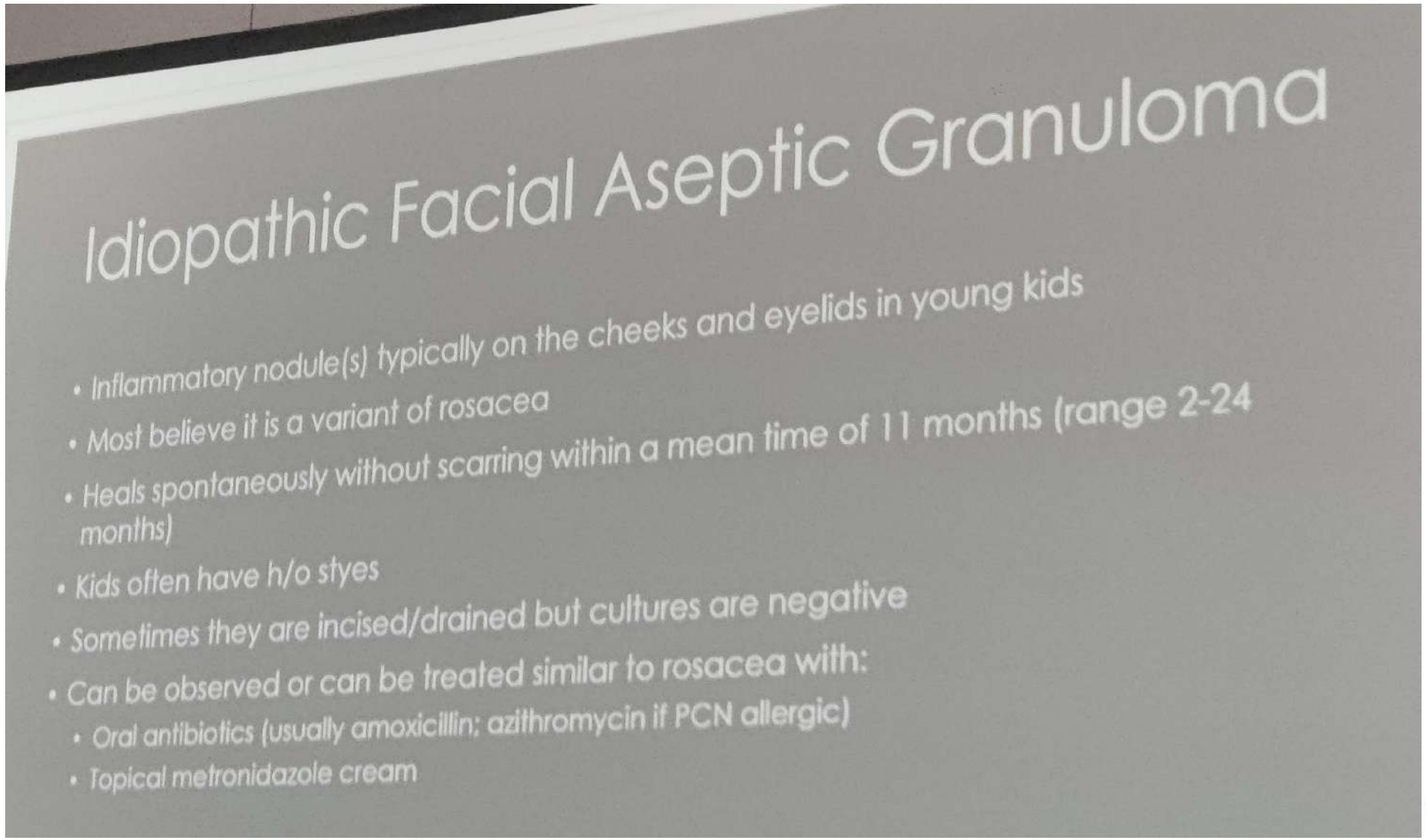

Isotretinoin Troubleshooting
• The "Purge"
• Happens in about 10% of patients
• Tends to be boys > girls and tends to be those with nodulocystic scarring acne
• You can do a couple things to prevent or treat the purge:
• Start with low dose isotretinoin (20 mg daily)
• Low dose prednisone 10 mg daily
• Cephalexin can be helpful
• I add this in if a purge happens that I didn't expect and it's really bad

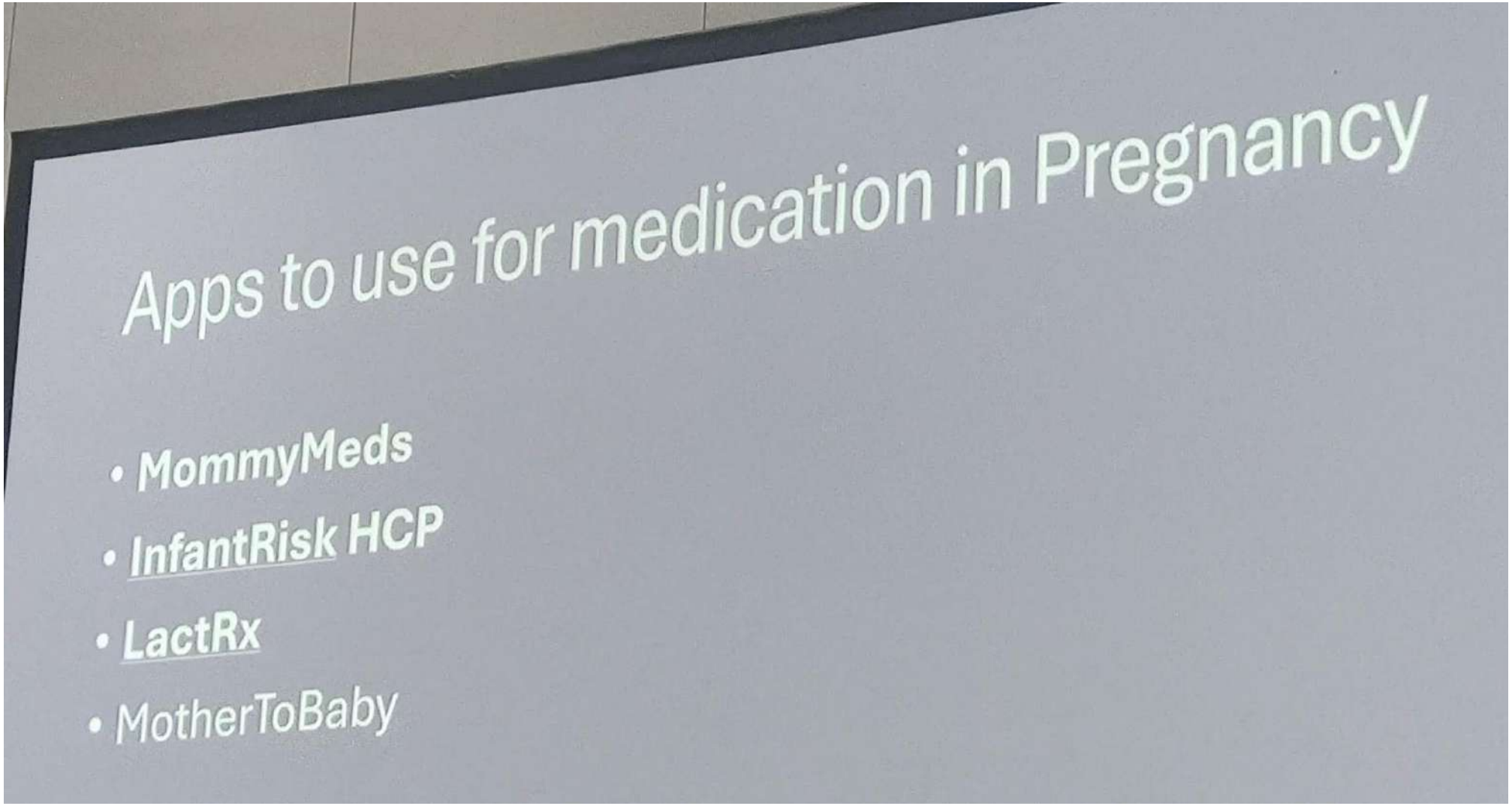

Cetirizine for the Purge?
• A lot of people have been doing it
• I'm just not sure I believe in it yet


Perioral Dermatitis in Kids
• Can be recurrent about 10% of the time
• Topical therapy works awesome for recurrences


Perioral Dermatitis that Affects the Nose in Kids
• Douglas, A and Zaenglein AL. A case series of demodicosis in children. Pediatr Dermatol. 2019; 36:651-654.
• Demodex mites are uncommon in kids
• Papulopustules on the nose are typically the clue to demodex in a kiddo
• Often occurs in the setting of perioral dermatitis or rosacea
• "Pustules on noses, think demodicosis!"

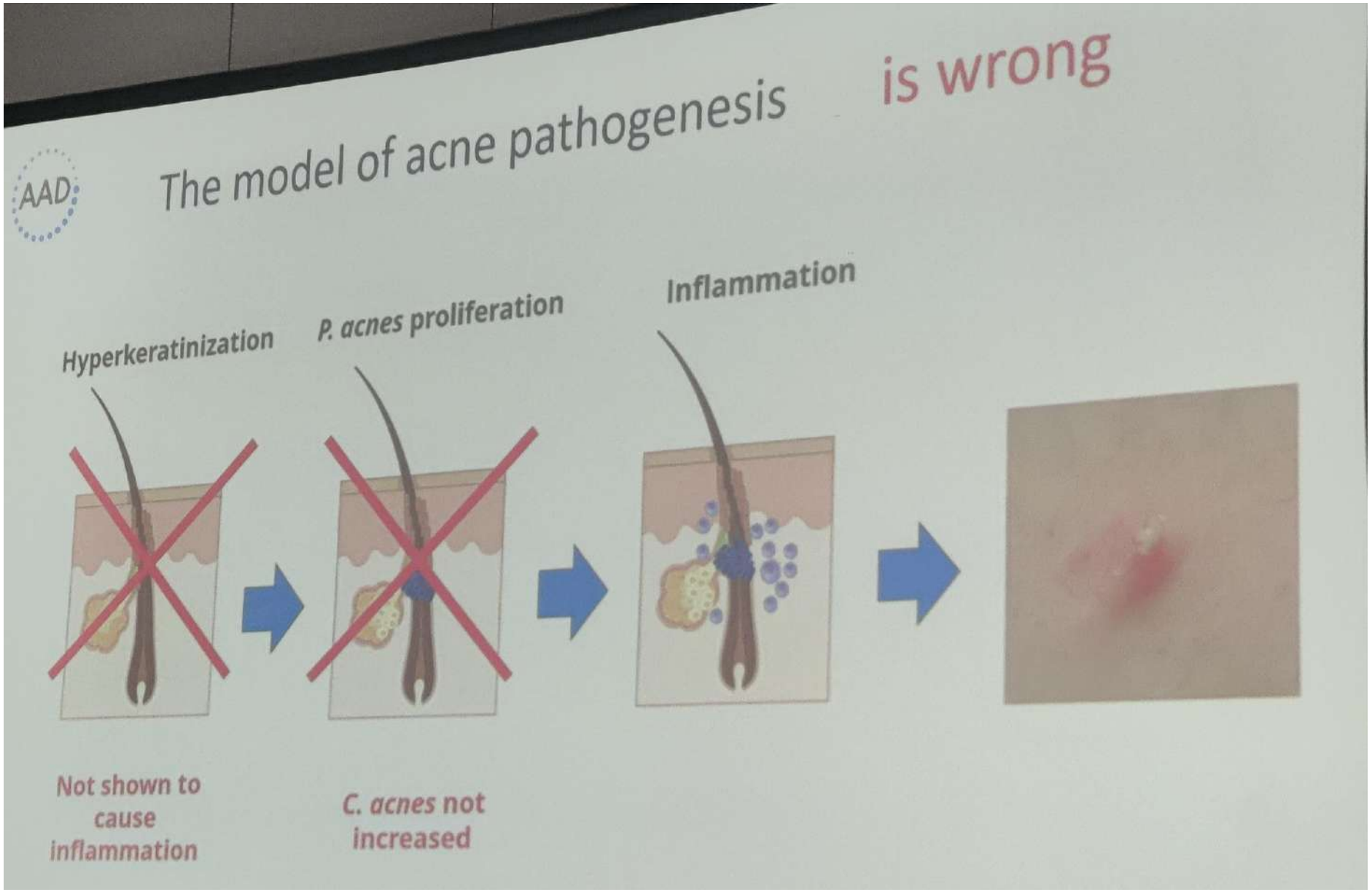

Perioral Derm that Affects the Nose:
Treatment
• Permethrin 5% cream once a week for 3-4 weeks
• Metronidazole cream 1-2 times daily for 3-4 weeks and even for maintenance
• Recurrences are common; might have to retreat
• Tips from My Experience-
• Often oral ivermectin is needed for this
• Hypochlorous acid can be helpful too (used commonly by eye docs for demodex blepharitis)

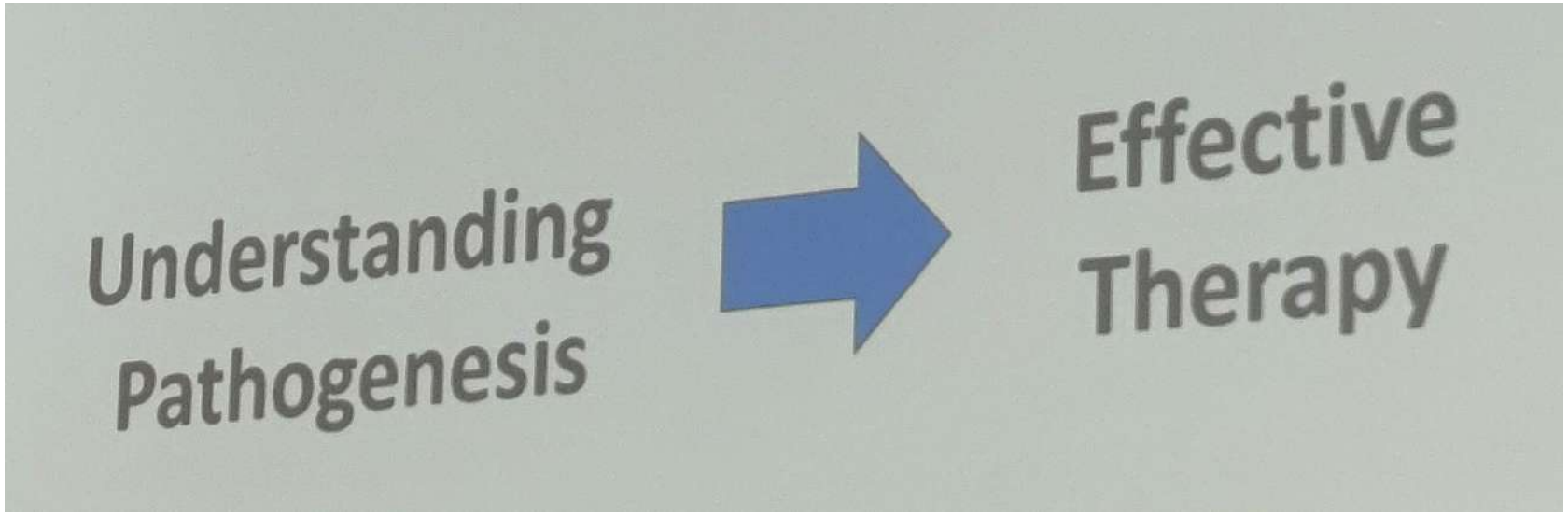

Idiopathic Facial Aseptic Granuloma
• Inflammatory nodule(s) typically on the cheeks and eyelids in young kids
• Most believe it is a variant of rosacea
• Heals spontaneously without scarring within a mean time of 11 months (range 2-24 months)
• Kids often have h/o styes
• Sometimes they are incised/drained but cultures are negative
• Can be observed or can be treated similar to rosacea with:
• Oral antibiotics (usually amoxicillin; azithromycin if PCN allergic)
• Topical metronidazole cream

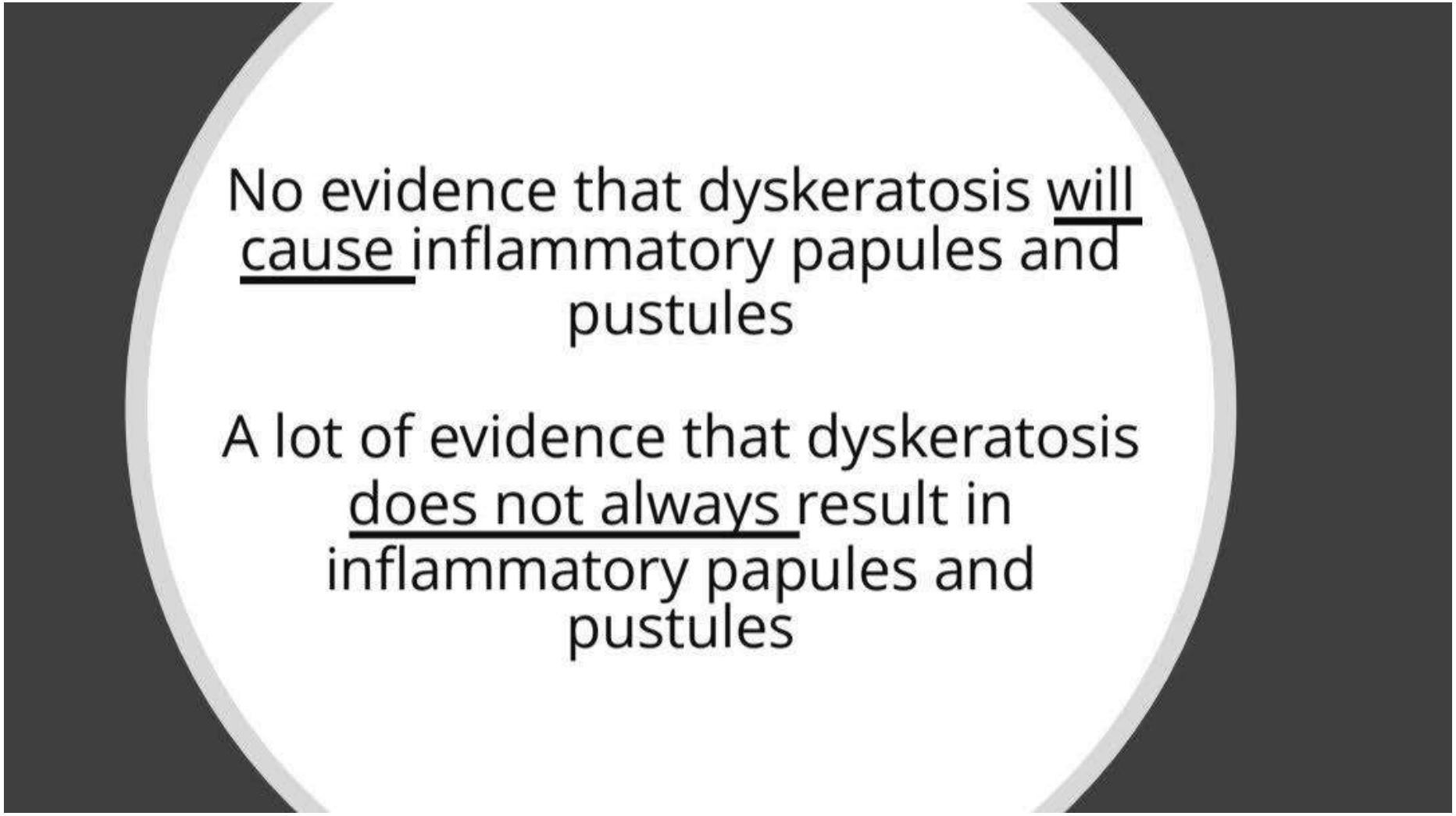

Apps to use for medication in Pregnancy
• MommyMeds
• InfantRisk HCP
• LactRx
• MotherToBaby

Updates on the Pathophysiology of Acne

Richard L. Gallo


The model of acne pathogenesis
is wrong
AAD
Hyperkeratinization
P. acnes proliferation
Inflammation
Not shown to cause inflammation
C. acnes not increased


Understanding
Pathogenesis
Effective
Therapy

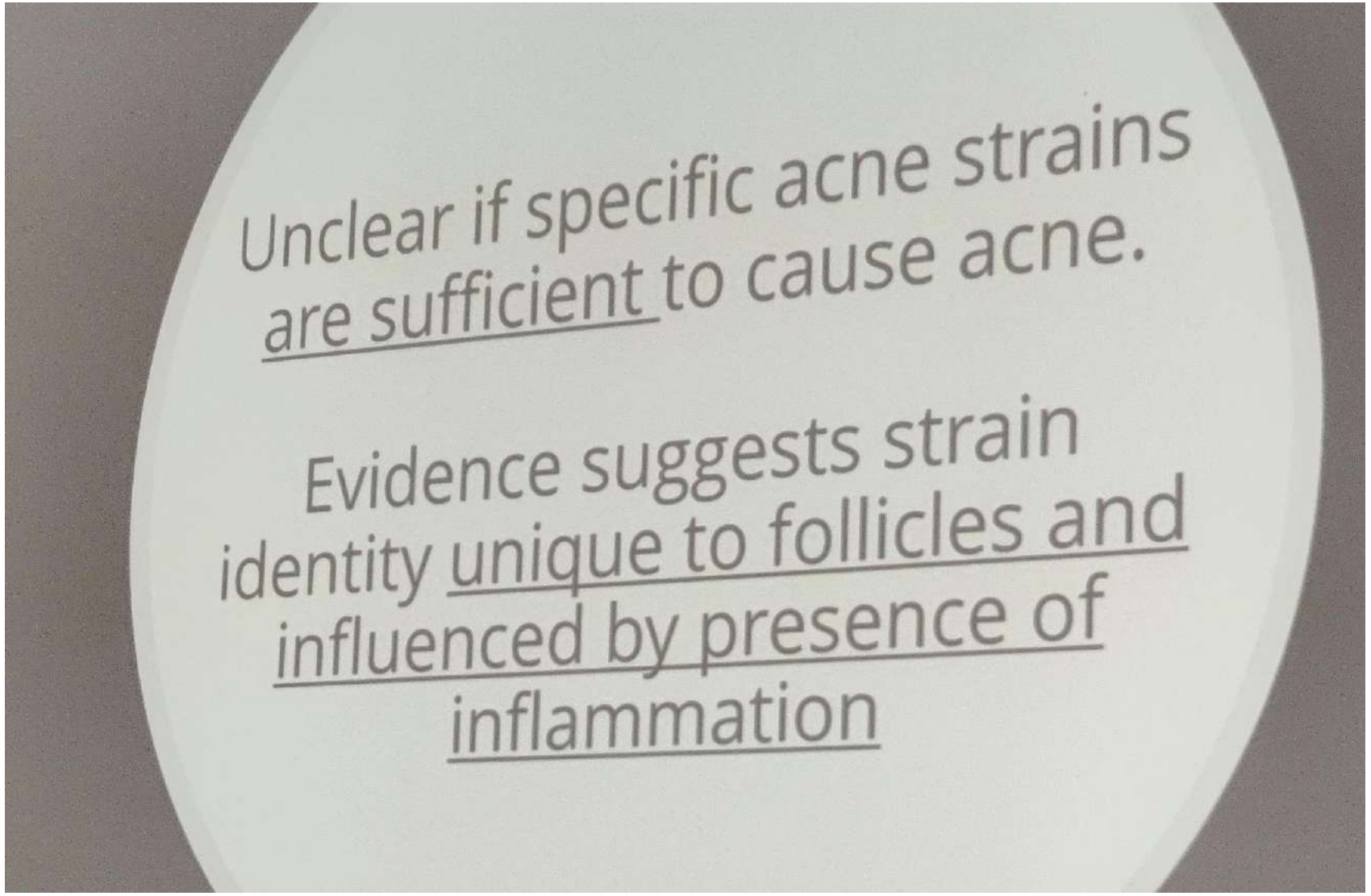

No evidence that dyskeratosis will cause inflammatory papules and pustules
A lot of evidence that dyskeratosis does not always result in inflammatory papules and pustules

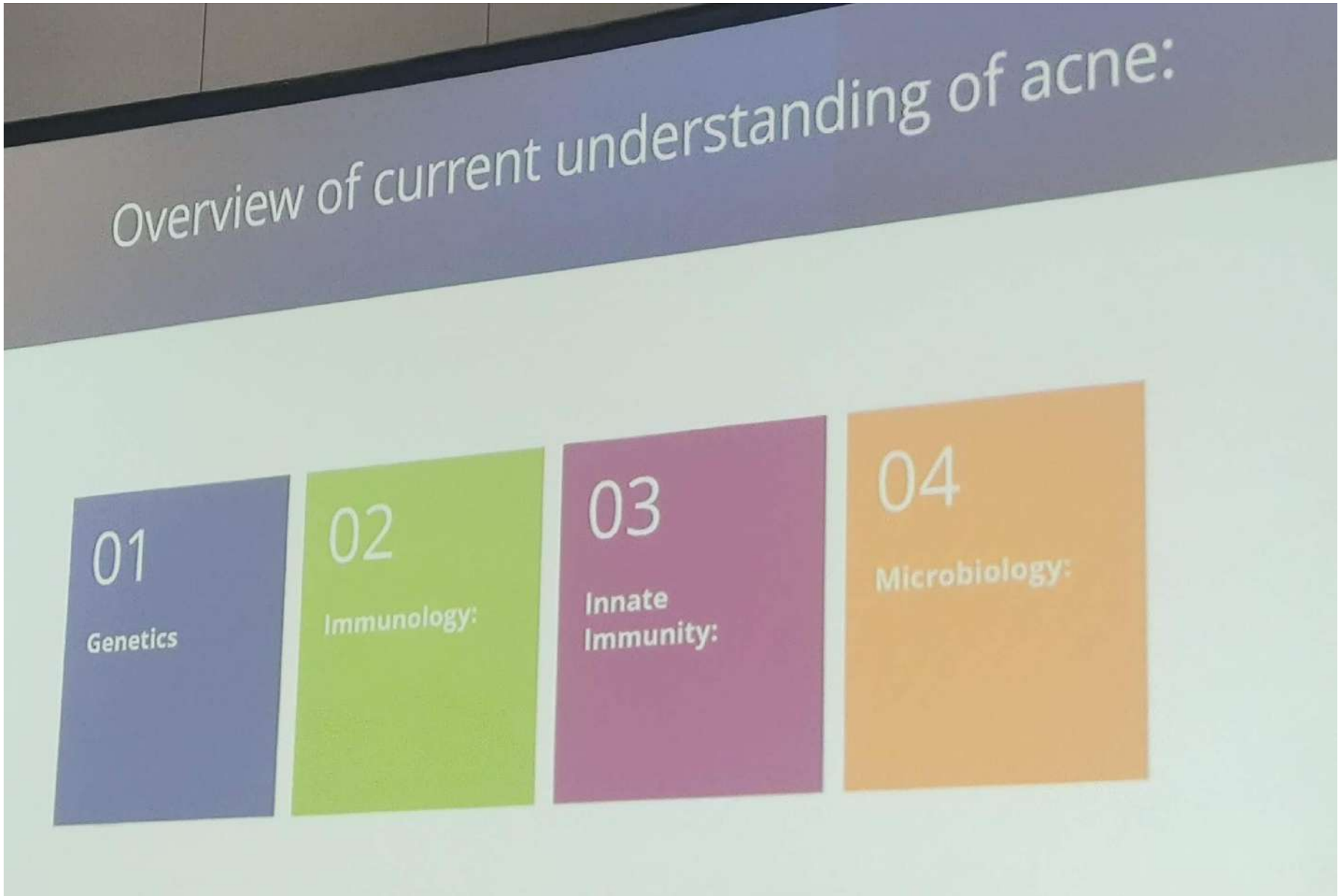
C. acnes is not more abundant in acne, but strains are different

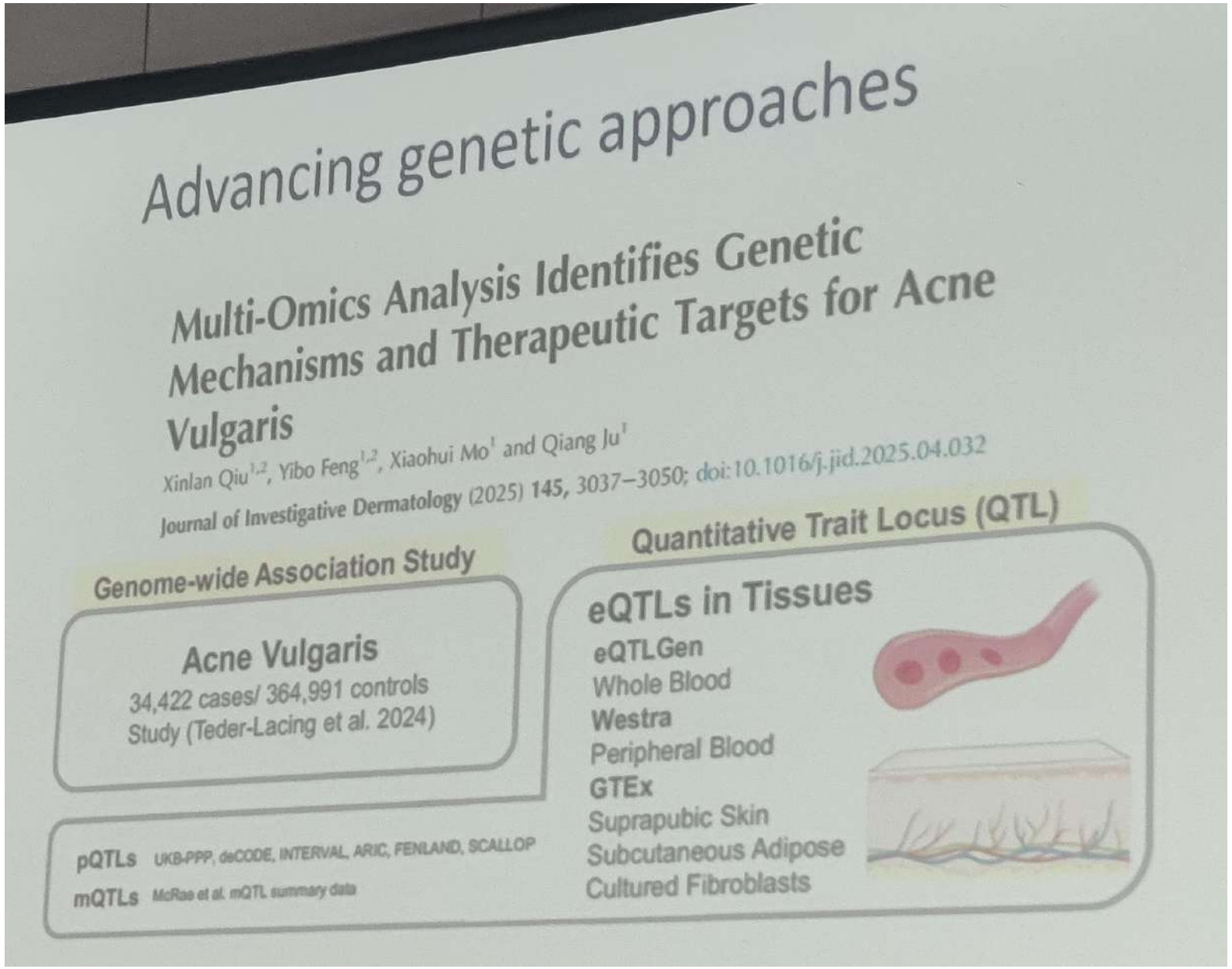
Fitz-Gibbon S. *et al. JID* 2013

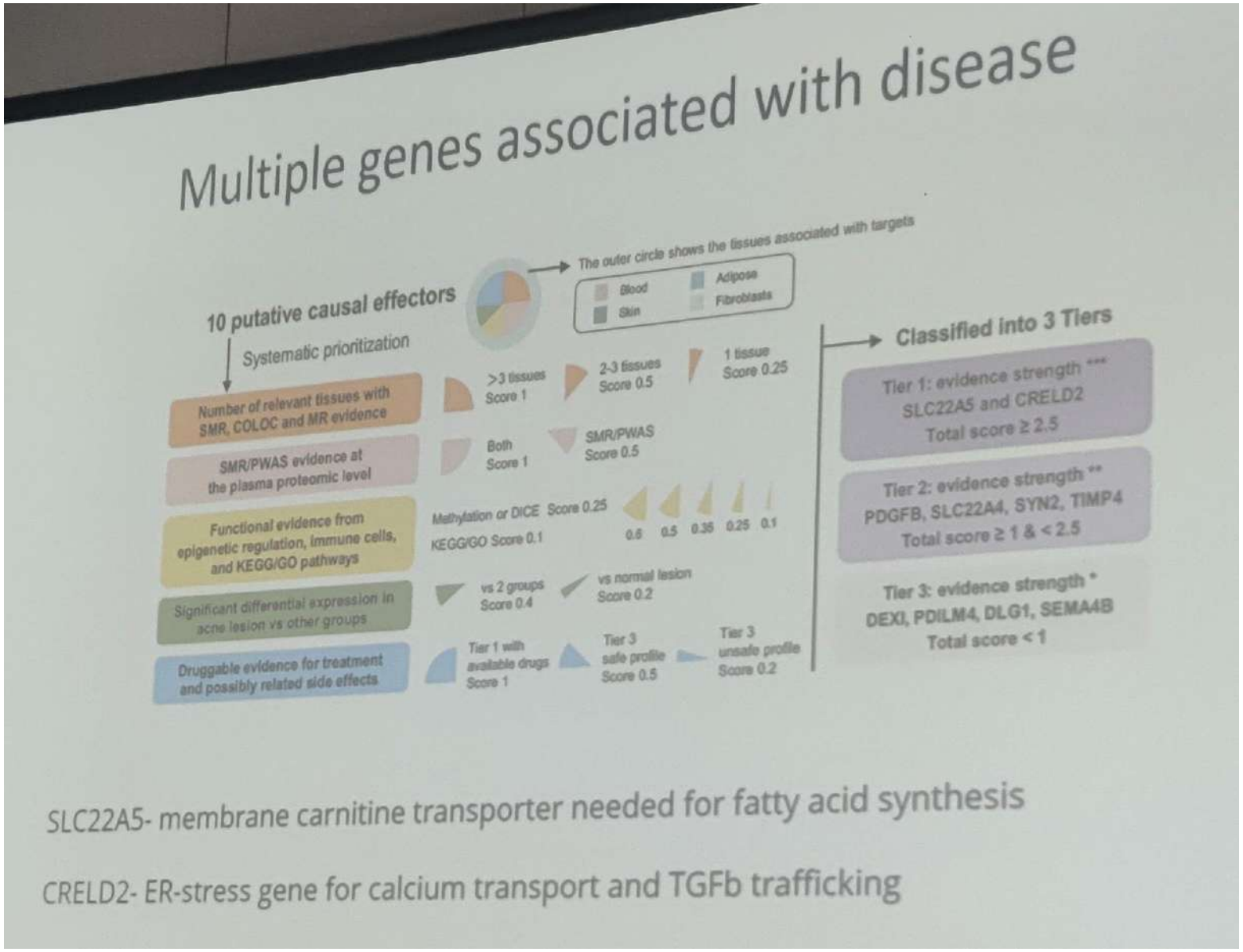
Abstract

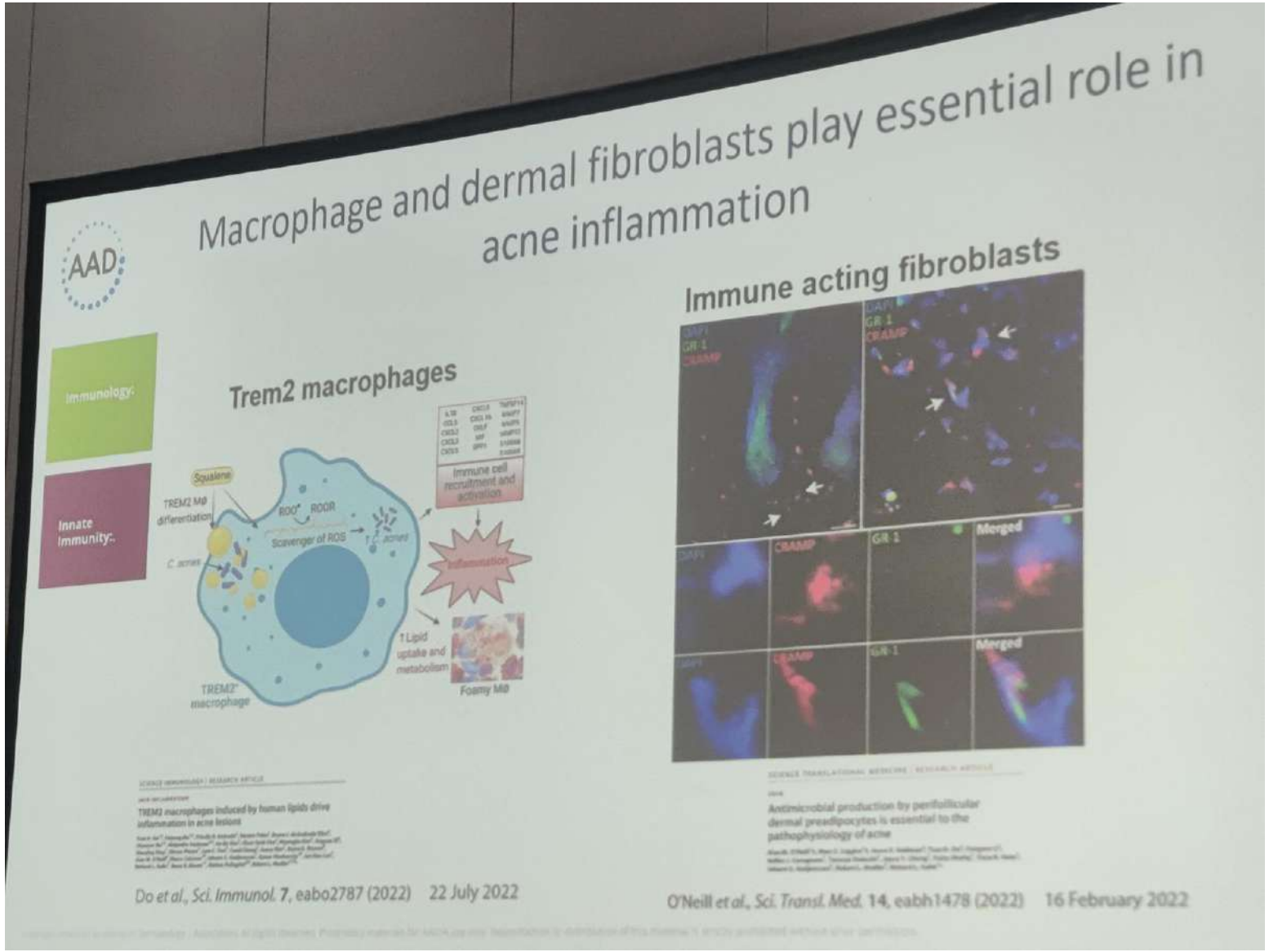
The human skin microbiome plays important roles in skin health and disease. However, bacterial population structure and diversity at the strain level is poorly understood. We compared the skin microbiome at the strain level and genome level of *Propionibacterium acnes*, a dominant skin commensal, between 49 acne patients and 52 healthy individuals by sampling the pilosebaceous units on their noses. **Metagenomic analysis demonstrated that while the relative abundances of *P. acnes* were similar, the strain population structures were significantly different in the two cohorts.** Certain strains were highly associated with acne and other strains

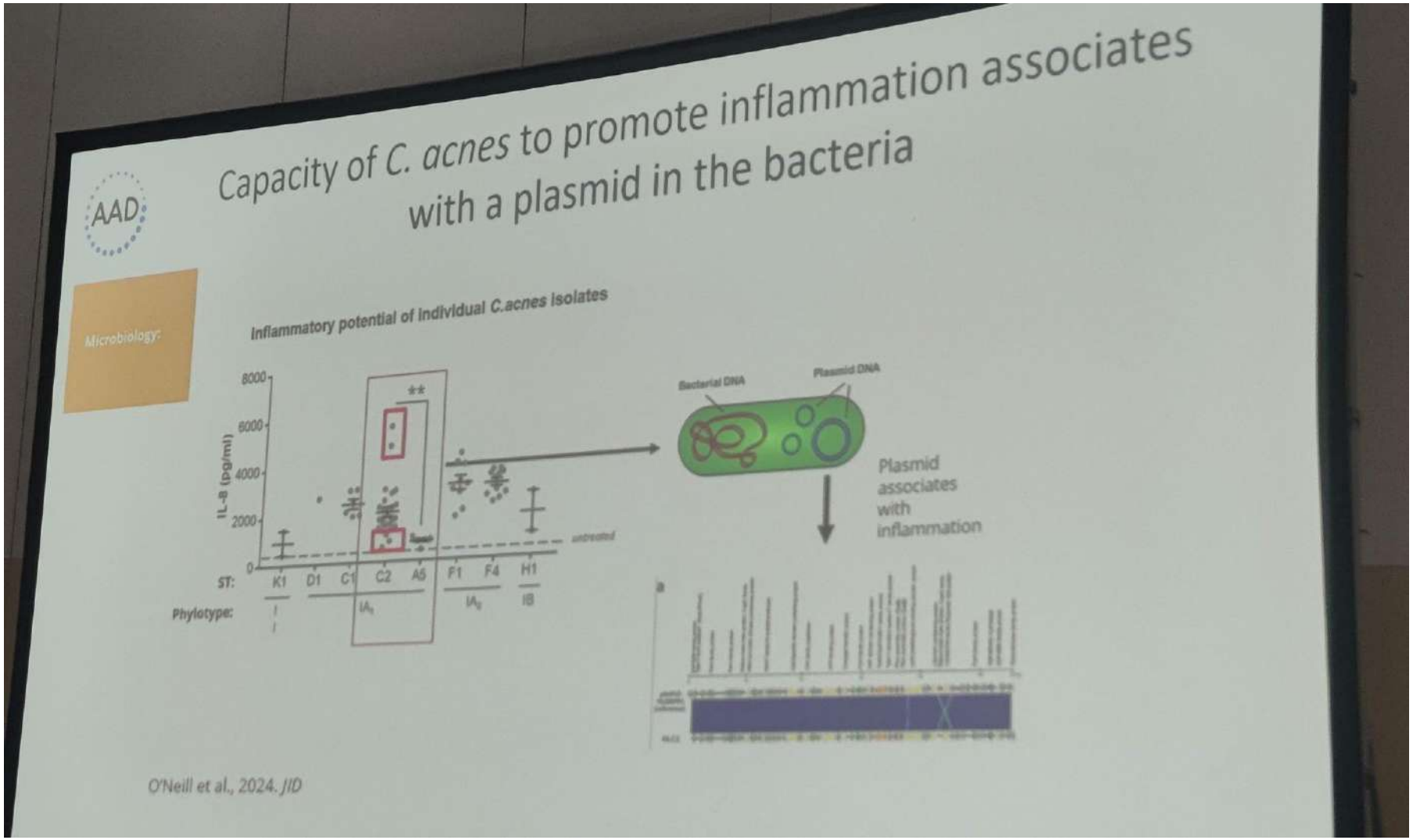

Unclear if specific acne strains are sufficient to cause acne.
Evidence suggests strain identity unique to follicles and influenced by presence of inflammation

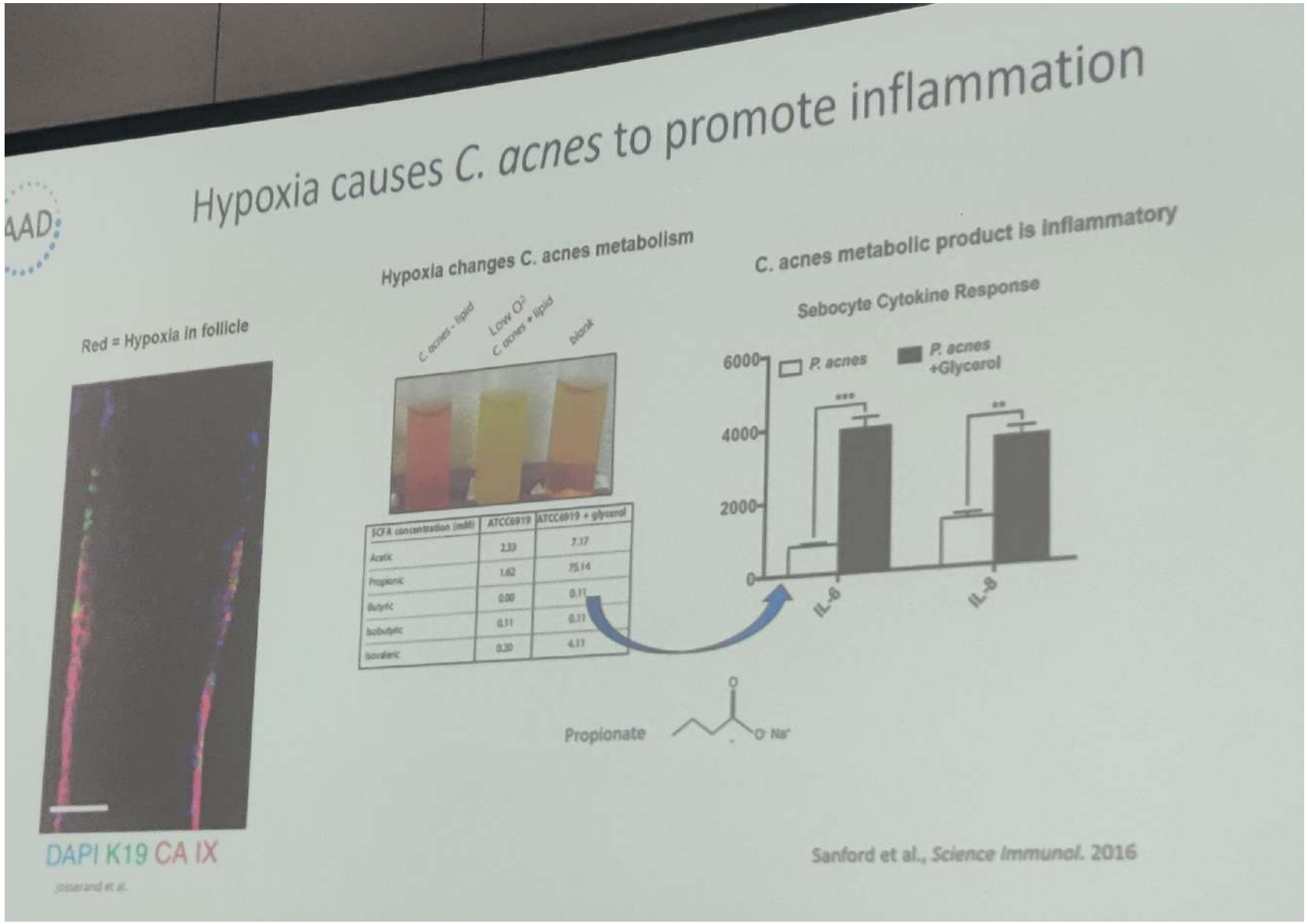

Overview of current understanding of acne:
01
Genetics
02
Immunology:
03
Innate Immunity:
04
Microbiology:

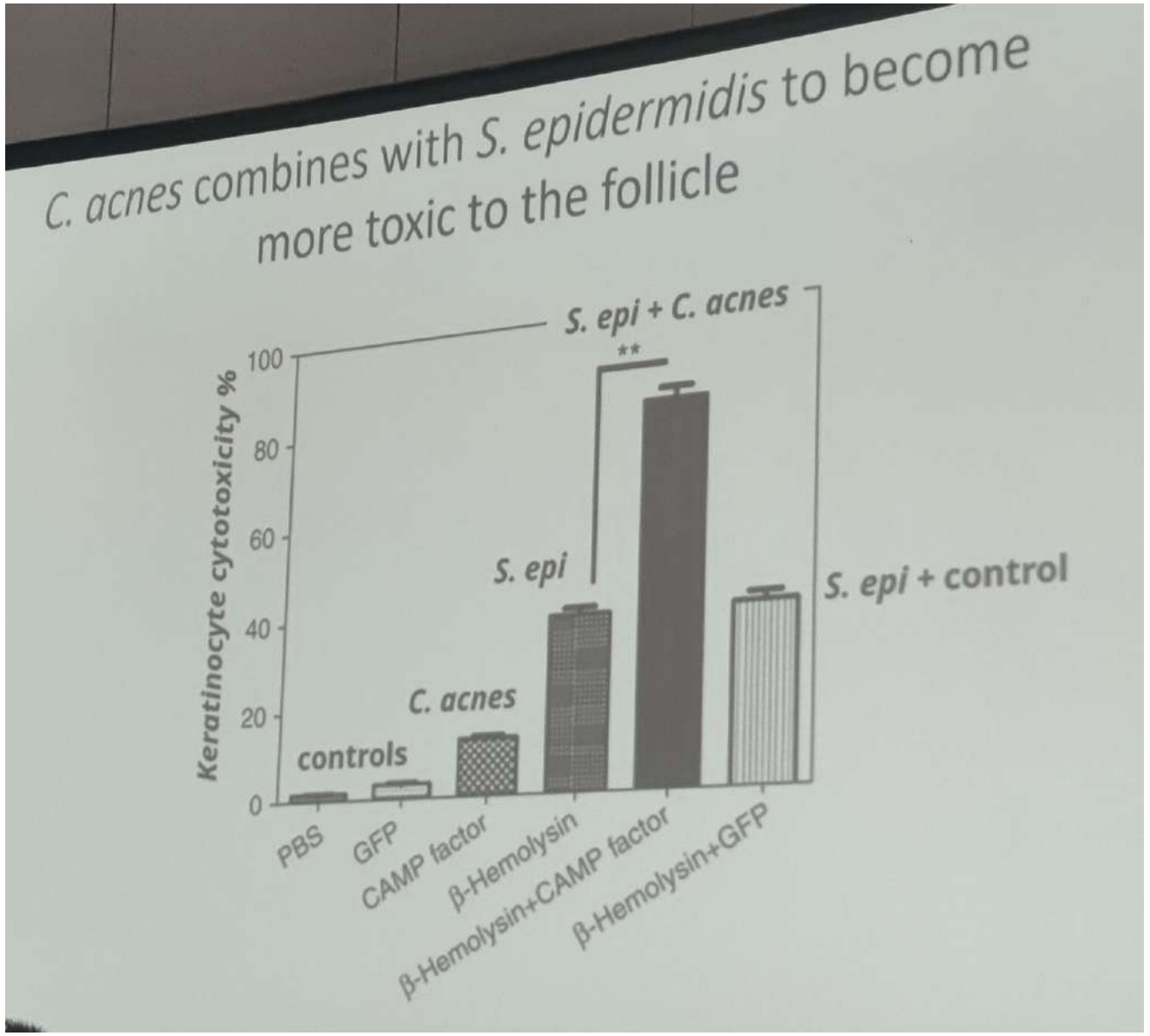

Advancing genetic approaches
Multi-Omics Analysis Identifies Genetic Mechanisms and Therapeutic Targets for Acne Vulgaris
Xinlan Qiu[1,2], Yibo Feng[1,2], Xiaohui Mo[1] and Qiang Ju[1]
Journal of Investigative Dermatology (2025) 145, 3037–3050; doi:10.1016/j.jid.2025.04.032
Genome-wide Association Study
Acne Vulgaris
34,422 cases/ 364,991 controls
Study (Teder-Lacing et al. 2024)
pQTLs UKB-PPP, deCODE, INTERVAL, ARIC, FENLAND, SCALLOP
mQTLs McRae et al. mQTL summary data
Quantitative Trait Locus (QTL)
eQTLs in Tissues
eQTLGen
Whole Blood
Westra
Peripheral Blood
GTEx
Suprapubic Skin
Subcutaneous Adipose
Cultured Fibroblasts

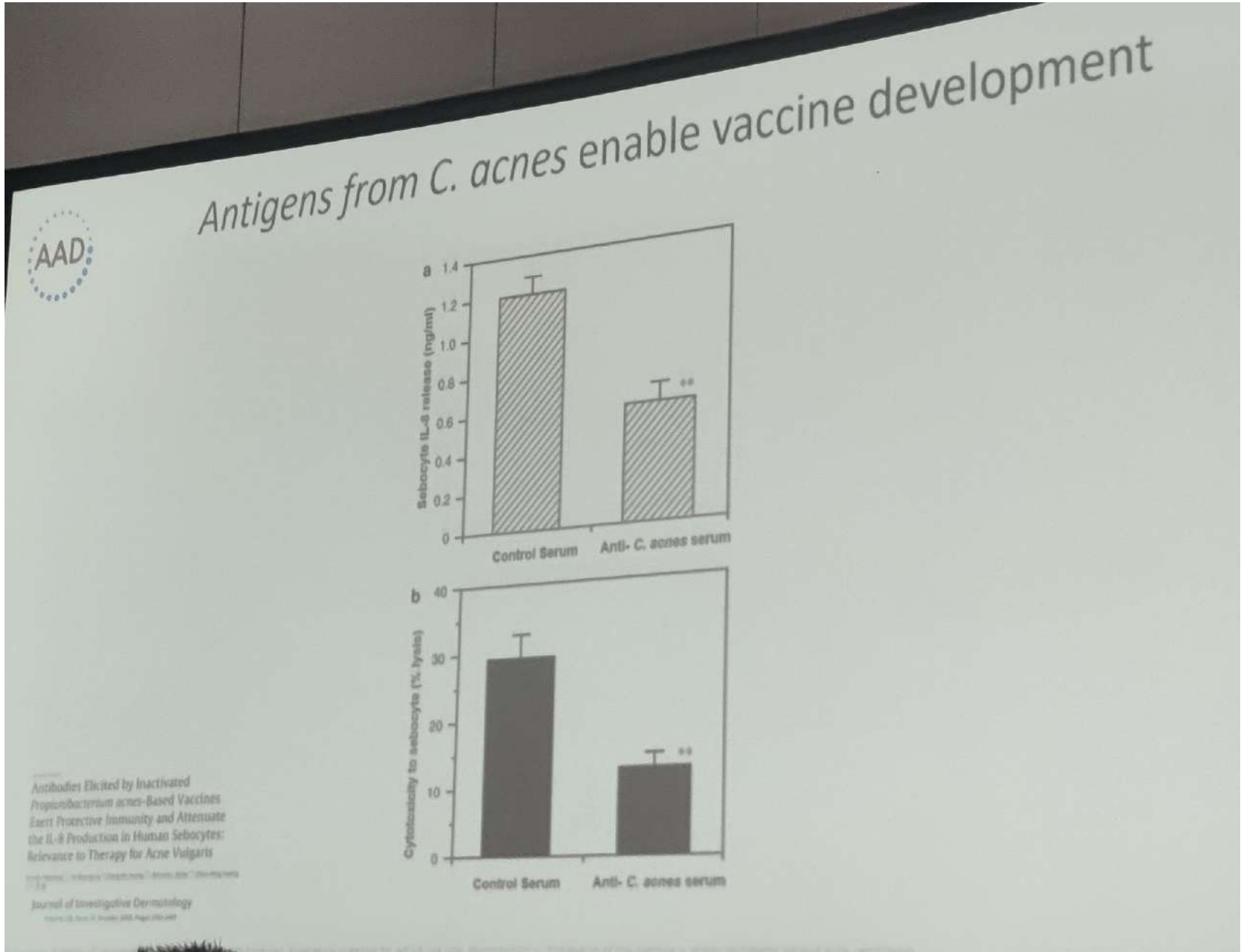

Multiple genes associated with disease
10 putative causal effectors
Systematic prioritization
The outer circle shows the tissues associated with targets
Blood
Skin
Adipose
Fibroblasts
Number of relevant tissues with SMR, COLOC and MR evidence
>3 tissues Score 1
2-3 tissues Score 0.5
1 tissue Score 0.25
SMR/PWAS evidence at the plasma proteomic level
Both Score 1
SMR/PWAS Score 0.5
Functional evidence from epigenetic regulation, immune cells, and KEGG/GO pathways
Methylation or DICE Score 0.25
KEGG/GO Score 0.1
0.6
0.5
0.35
0.25
0.1
Significant differential expression in acne lesion vs other groups
vs 2 groups Score 0.4
vs normal lesion Score 0.2
Druggable evidence for treatment and possibly related side effects
Tier 1 with available drugs Score 1
Tier 3 safe profile Score 0.5
Tier 3 unsafe profile Score 0.2
Classified into 3 Tiers
Tier 1: evidence strength ***
SLC22A5 and CRELD2
Total score ≥ 2.5
Tier 2: evidence strength **
PDGFB, SLC22A4, SYN2, TIMP4
Total score ≥ 1 & < 2.5
Tier 3: evidence strength *
DEXI, PDILM4, DLG1, SEMA4B
Total score < 1
SLC22A5- membrane carnitine transporter needed for fatty acid synthesis
CRELD2- ER-stress gene for calcium transport and TGFb trafficking

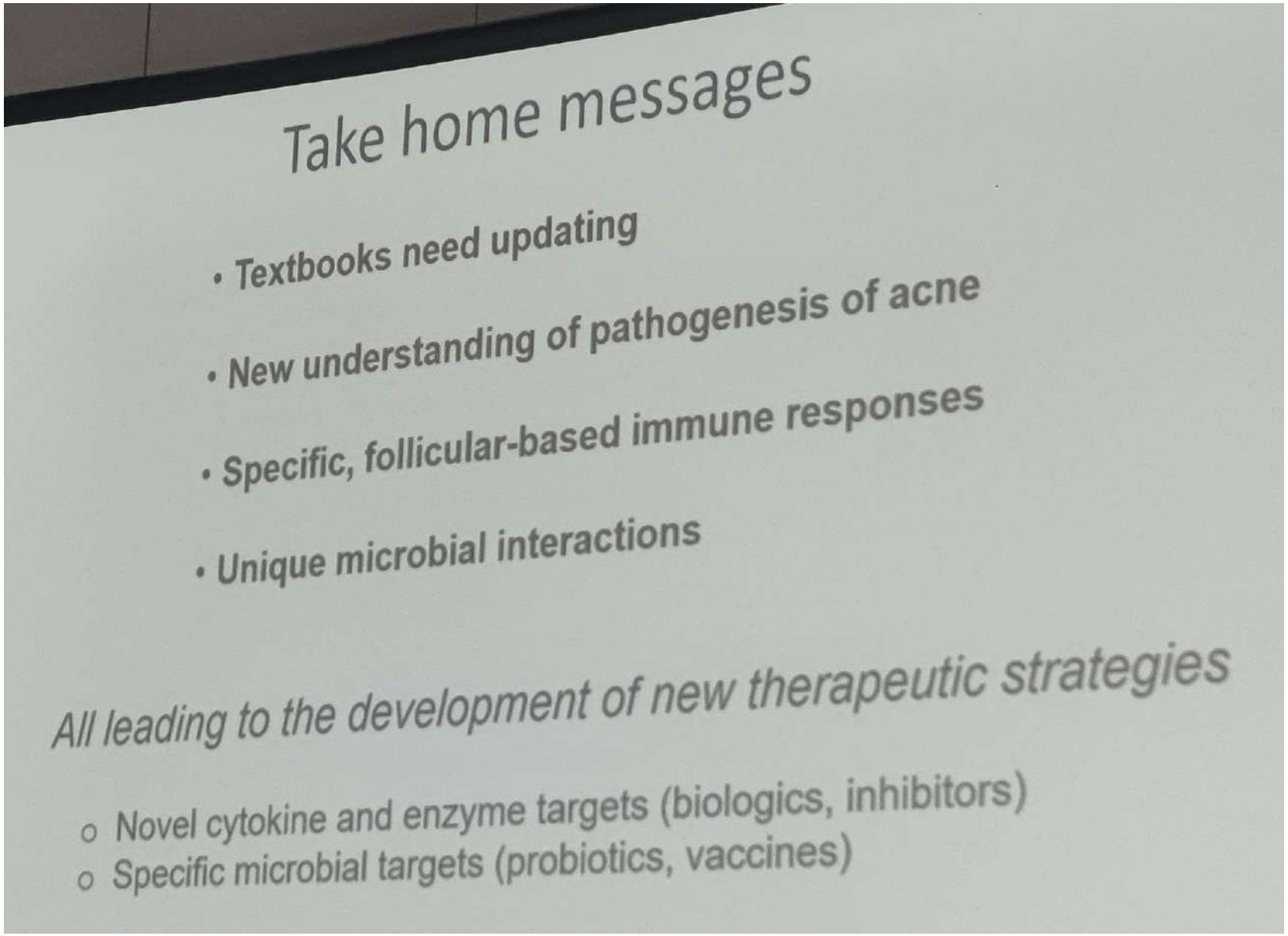

Macrophage and dermal fibroblasts play essential role in acne inflammation
AAD
Immunology:
Innate Immunity:
Trem2 macrophages
Squalene
TREM2 MΦ differentiation
ROO• ROOR
Scavenger of ROS
C. acnes
T C. acnes
Immune cell recruitment and activation
Inflammation
↑ Lipid uptake and metabolism
TREM2+ macrophage
Foamy MΦ
TREM2 macrophages induced by human lipids drive inflammation in acne lesions
Do et al., Sci. Immunol. 7, eabo2787 (2022) 22 July 2022
Immune acting fibroblasts
DAPI
GR-1
CRAMP
Merged
Antimicrobial production by perifollicular dermal preadipocytes is essential to the pathophysiology of acne
O'Neill et al., Sci. Transl. Med. 14, eabh1478 (2022) 16 February 2022


Capacity of C. acnes to promote inflammation associates with a plasmid in the bacteria
AAD
Microbiology
Inflammatory potential of individual C.acnes isolates
IL-8 (pg/ml)
8000
6000
4000
2000
0
**
untreated
ST:
K1
D1
C1
C2
A5
F1
F4
H1
Phylotype:
IA1
IA2
IB
Bacterial DNA
Plasmid DNA
Plasmid associates with inflammation
O'Neill et al., 2024. JID


Hypoxia causes C. acnes to promote inflammation
Red = Hypoxia in follicle
DAPI K19 CA IX
Hypoxia changes C. acnes metabolism
C. acnes + lipid
Low O2 C. acnes + lipid
blank
SCFA concentration (mM)
ATCC6919
ATCC6919 + glycerol
Acetic
2.33
7.17
Propionic
1.62
75.14
Butyric
0.00
0.11
Isobutyric
0.11
0.11
Isovaleric
0.20
4.11
Propionate
C. acnes metabolic product is inflammatory
Sebocyte Cytokine Response
P. acnes
P. acnes +Glycerol
6000
4000
2000
0
IL-6
IL-8
Sanford et al., Science Immunol. 2016

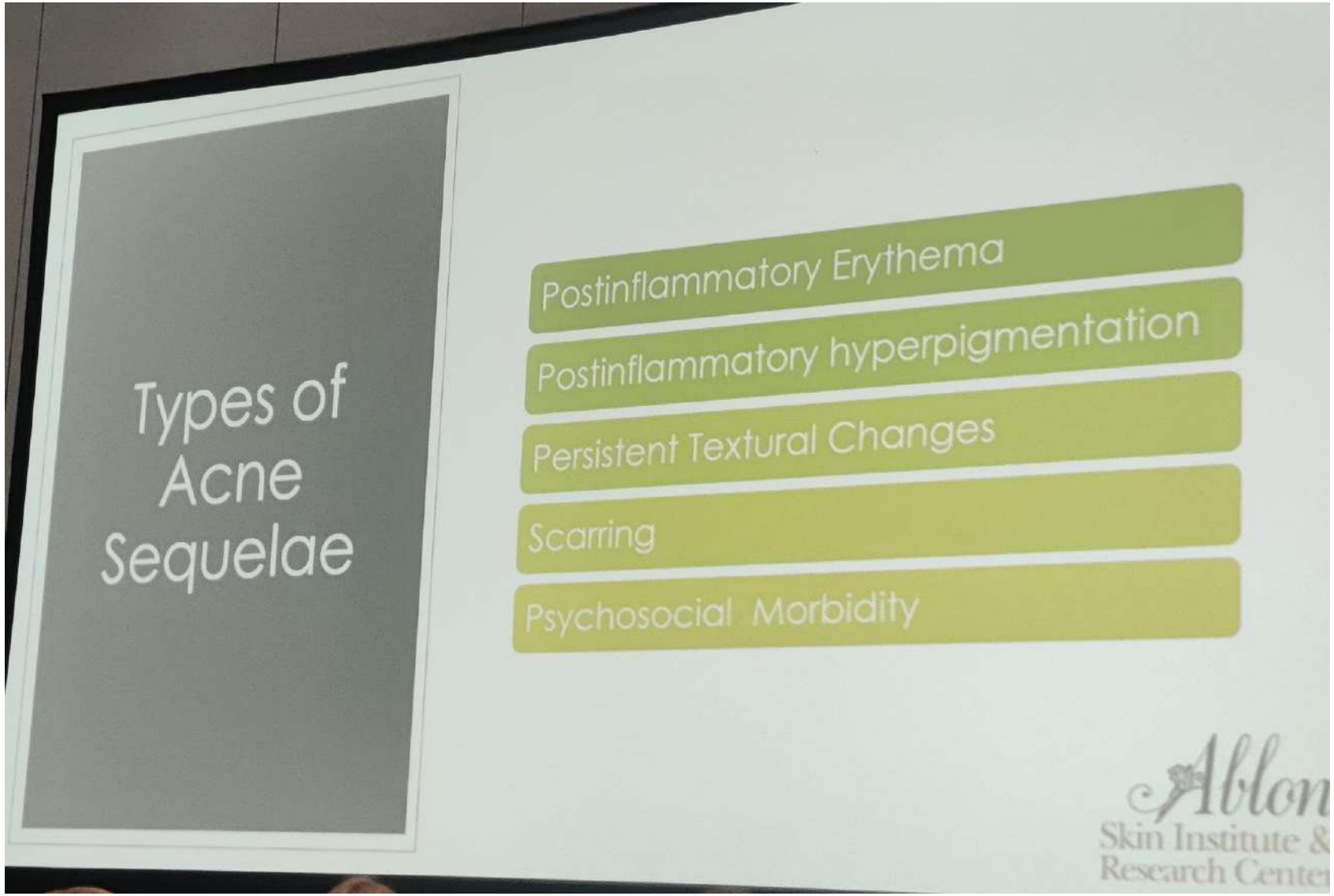

C. acnes combines with S. epidermidis to become more toxic to the follicle
Keratinocyte cytotoxicity %
100
80
60
40
20
0
controls
C. acnes
S. epi
S. epi + C. acnes
**
S. epi + control
PBS
GFP
CAMP factor
β-Hemolysin
β-Hemolysin+CAMP factor
β-Hemolysin+GFP

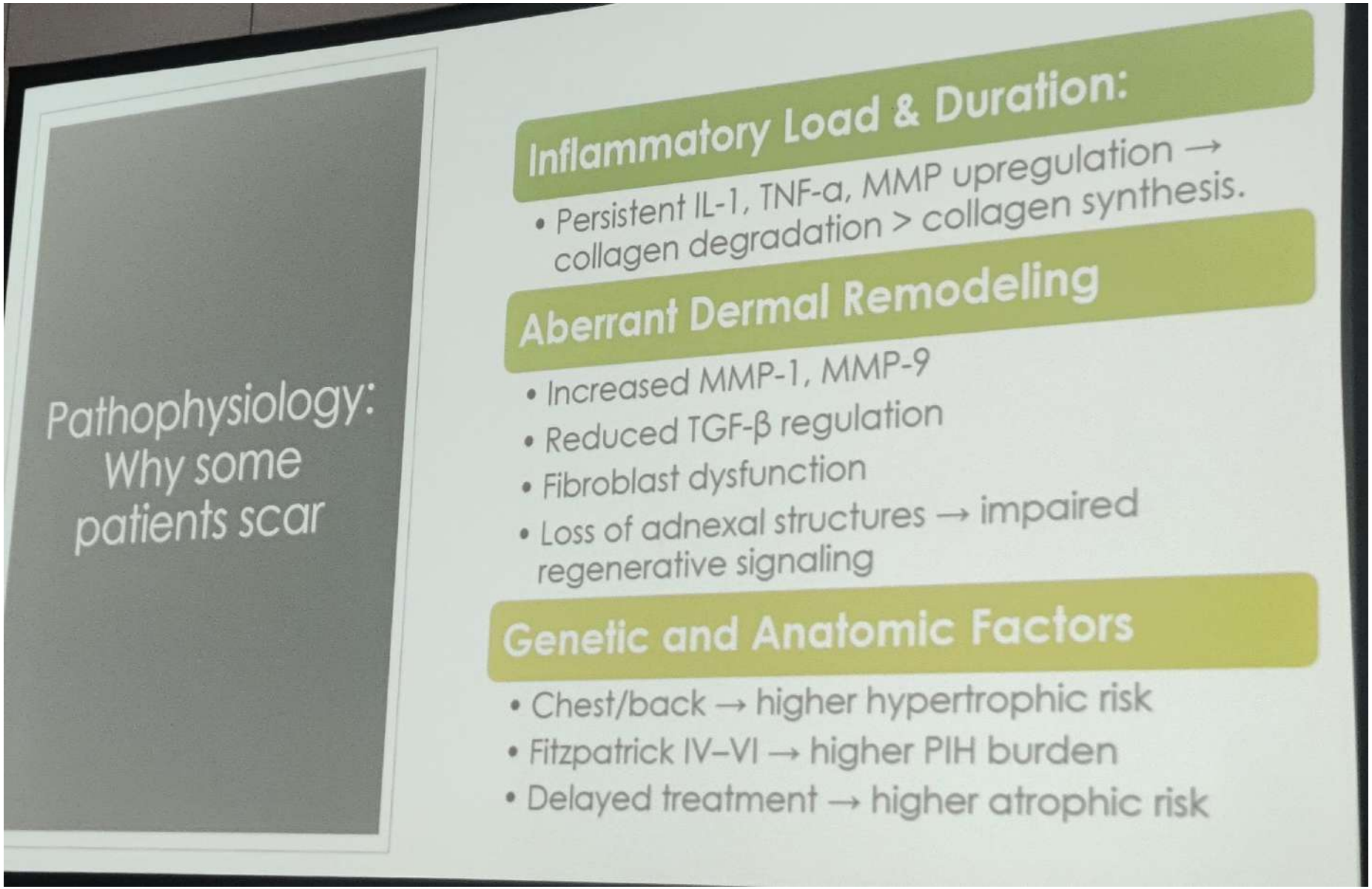

Antigens from C. acnes enable vaccine development
AAD
a
Sebocyte IL-8 release (ng/ml)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0
Control Serum
Anti- C. acnes serum
b
Cytotoxicity to sebocyte (% lysis)
40
30
20
10
0
Control Serum
Anti- C. acnes serum
Antibodies Elicited by Inactivated Propionibacterium acnes-Based Vaccines Exert Protective Immunity and Attenuate the IL-8 Production in Human Sebocytes: Relevance to Therapy for Acne Vulgaris
Journal of Investigative Dermatology

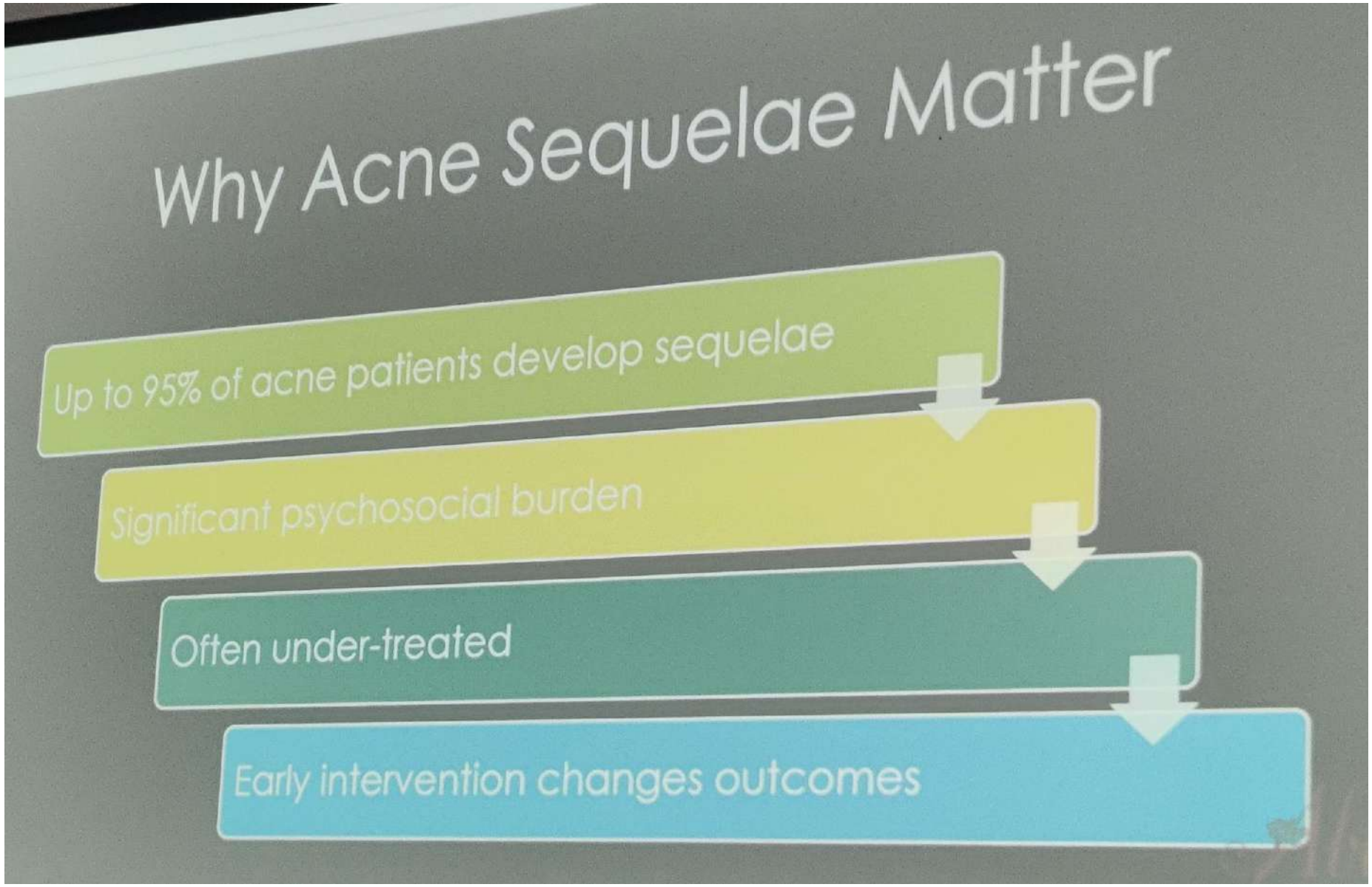

Take home messages
• Textbooks need updating
• New understanding of pathogenesis of acne
• Specific, follicular-based immune responses
• Unique microbial interactions
All leading to the development of new therapeutic strategies
o Novel cytokine and enzyme targets (biologics, inhibitors)
o Specific microbial targets (probiotics, vaccines)

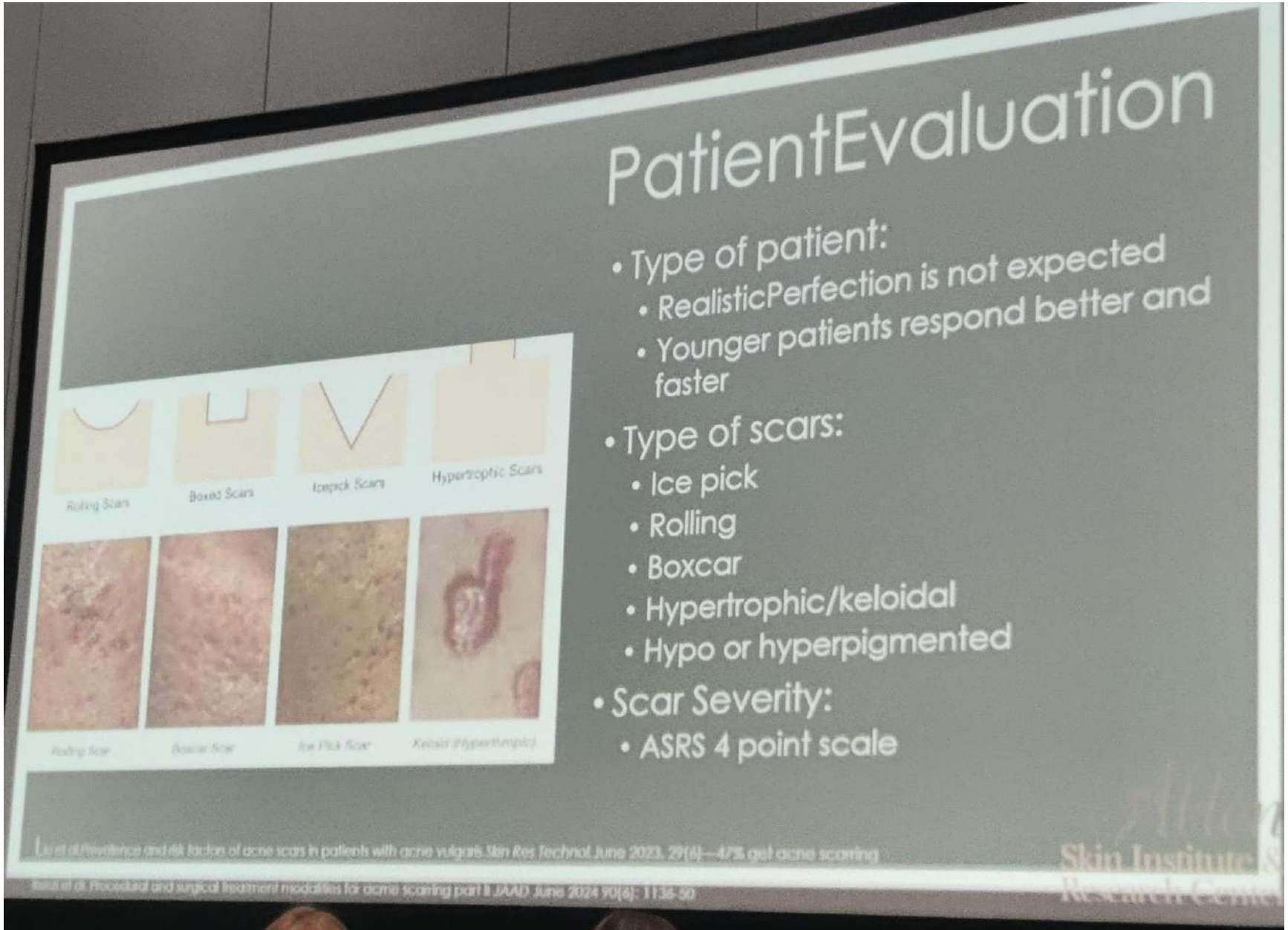
Treating the Sequalae of Acne

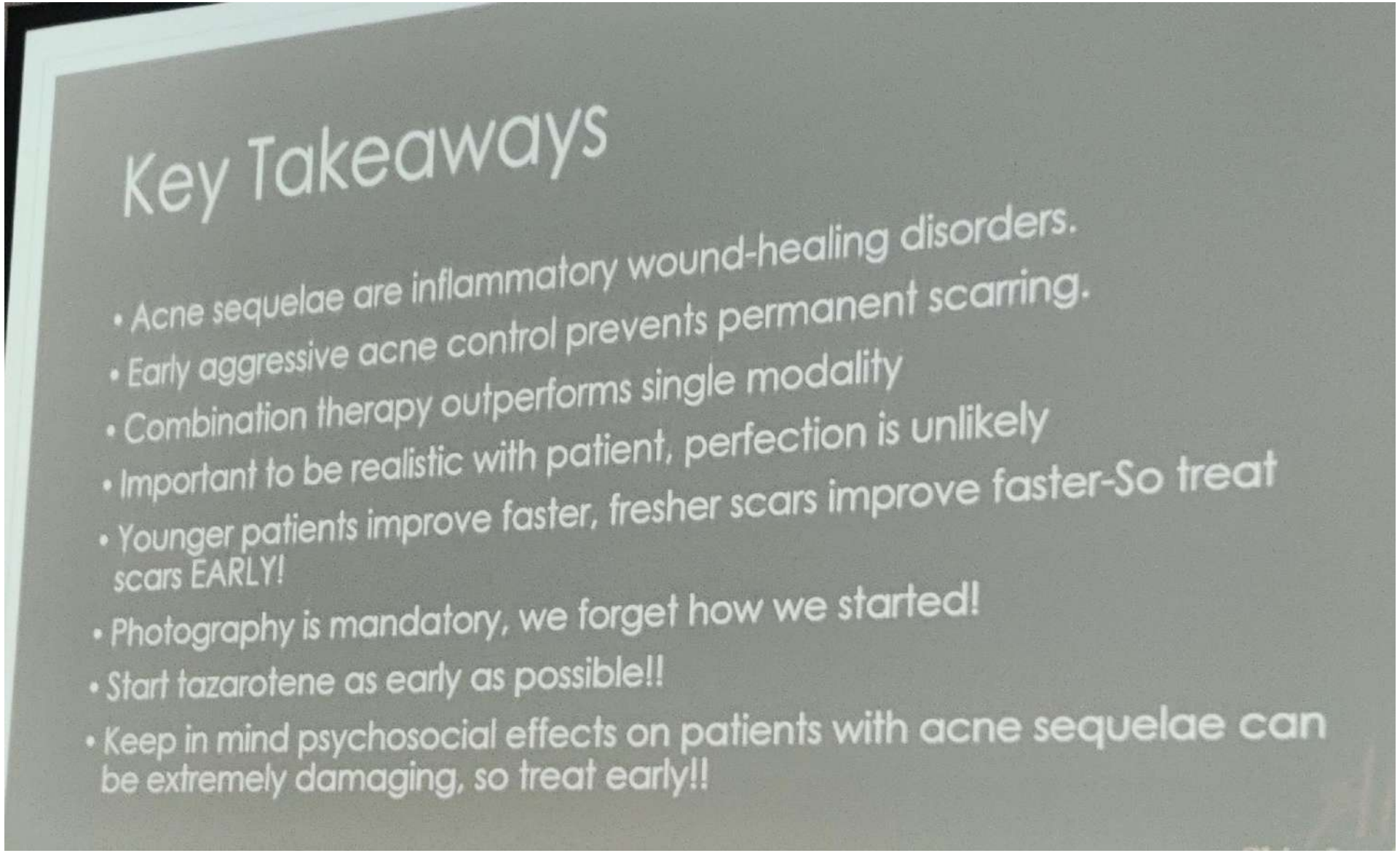
Glynis R. Ablon


Types of Acne Sequelae
Postinflammatory Erythema
Postinflammatory hyperpigmentation
Persistent Textural Changes
Scarring
Psychosocial Morbidity
Ablon
Skin Institute &
Research Center


Pathophysiology: Why some patients scar
Inflammatory Load & Duration:
• Persistent IL-1, TNF-a, MMP upregulation → collagen degradation > collagen synthesis.
Aberrant Dermal Remodeling
• Increased MMP-1, MMP-9
• Reduced TGF-β regulation
• Fibroblast dysfunction
• Loss of adnexal structures → impaired regenerative signaling
Genetic and Anatomic Factors
• Chest/back → higher hypertrophic risk
• Fitzpatrick IV–VI → higher PIH burden
• Delayed treatment → higher atrophic risk


Why Acne Sequelae Matter
Up to 95% of acne patients develop sequelae
Significant psychosocial burden
Often under-treated
Early intervention changes outcomes


PatientEvaluation
• Type of patient:
• RealisticPerfection is not expected
• Younger patients respond better and faster
• Type of scars:
• Ice pick
• Rolling
• Boxcar
• Hypertrophic/keloidal
• Hypo or hyperpigmented
• Scar Severity:
• ASRS 4 point scale
Rolling Scars
Boxed Scars
Icepick Scars
Hypertrophic Scars
Rolling Scar
Boxcar Scar
Ice Pick Scar
Keloid (Hypertrophic)
Liu et al Prevalence and risk factors of acne scars in patients with acne vulgaris Skin Res Technol June 2023; 29(6)—4/5 get acne scarring
Skin Institute


Key Takeaways
• Acne sequelae are inflammatory wound-healing disorders.
• Early aggressive acne control prevents permanent scarring.
• Combination therapy outperforms single modality
• Important to be realistic with patient, perfection is unlikely
• Younger patients improve faster, fresher scars improve faster-So treat scars EARLY!
• Photography is mandatory, we forget how we started!
• Start tazarotene as early as possible!!
• Keep in mind psychosocial effects on patients with acne sequelae can be extremely damaging, so treat early!!

Surgical Approach to rhinophyma

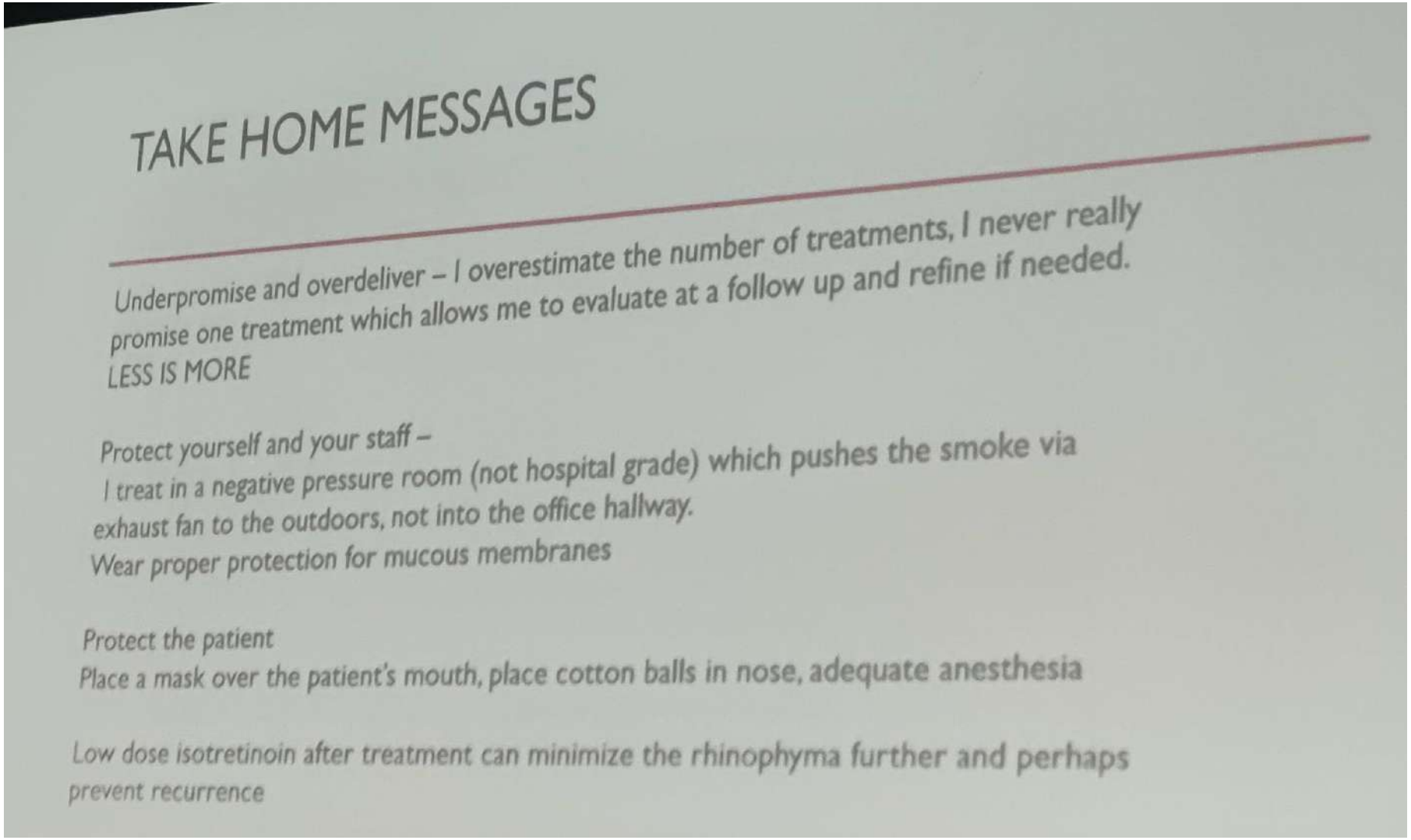
Sandra Siew Pin Lee

S007 – Acne and Rosacea
Surgical Approach to rhinophyma, Sandra Siew Pin Lee

AAD ANNUAL MEETING 2026 highlights

#AEDVenAAD2026


WORLD RECORD
RHINOPHYMA REPAIR



TAKE HOME MESSAGES

Underpromise and overdeliver – I overestimate the number of treatments, I never really promise one treatment which allows me to evaluate at a follow up and refine if needed.
LESS IS MORE

Protect yourself and your staff –
I treat in a negative pressure room (not hospital grade) which pushes the smoke via exhaust fan to the outdoors, not into the office hallway.
Wear proper protection for mucous membranes

Protect the patient
Place a mask over the patient's mouth, place cotton balls in nose, adequate anesthesia

Low dose isotretinoin after treatment can minimize the rhinophyma further and perhaps prevent recurrence

highlights
Denver, Colorado

AAD ANNUAL MEETING 2026

27 — 31
Marzo

F019 – Acne Boot Camp

27/03/2026

Una iniciativa de:

ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

FUNDACIÓN AEDV PIEL SANA
ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

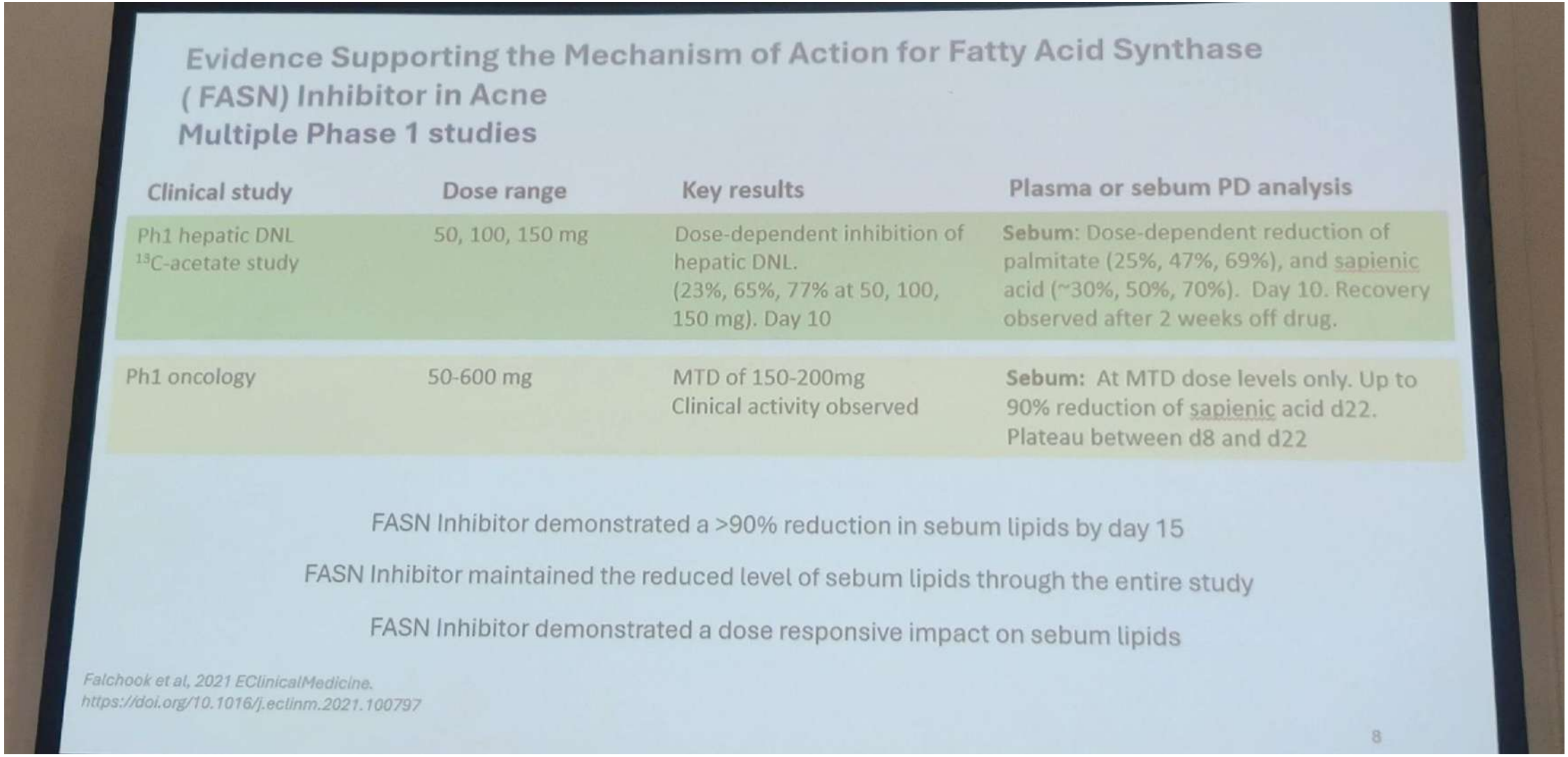
#AEDVenAAD2026

Con el patrocinio de:

ucb

Introduction and Topical Therapies for Acne

Leon H Kircik



Evidence Supporting the Mechanism of Action for Fatty Acid Synthase (FASN) Inhibitor in Acne
Multiple Phase 1 studies

Clinical study	Dose range	Key results	Plasma or sebum PD analysis
Ph1 hepatic DNL ^{13}C-acetate study	50, 100, 150 mg	Dose-dependent inhibition of hepatic DNL. (23%, 65%, 77% at 50, 100, 150 mg). Day 10	**Sebum**: Dose-dependent reduction of palmitate (25%, 47%, 69%), and sapienic acid (~30%, 50%, 70%). Day 10. Recovery observed after 2 weeks off drug.
Ph1 oncology	50-600 mg	MTD of 150-200mg Clinical activity observed	**Sebum:** At MTD dose levels only. Up to 90% reduction of sapienic acid d22. Plateau between d8 and d22

FASN Inhibitor demonstrated a >90% reduction in sebum lipids by day 15

FASN Inhibitor maintained the reduced level of sebum lipids through the entire study

FASN Inhibitor demonstrated a dose responsive impact on sebum lipids

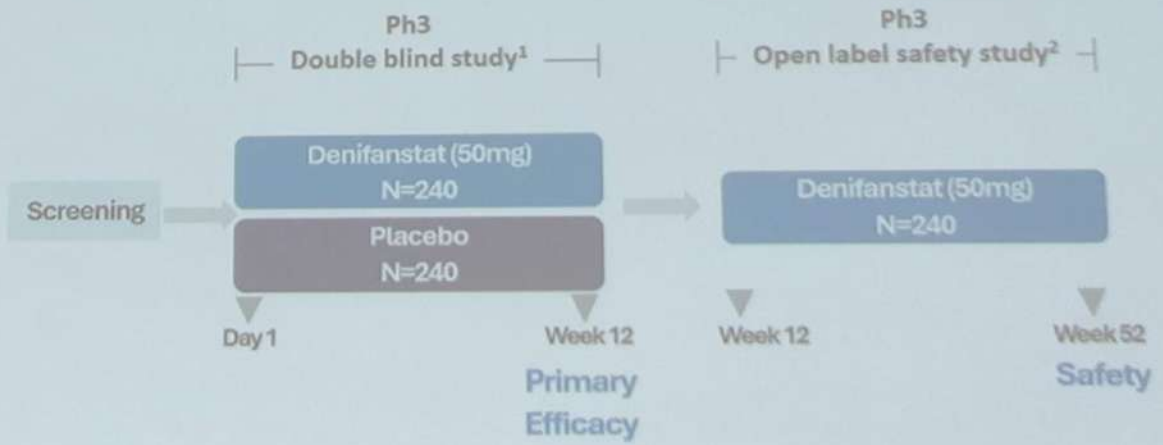
Falchook et al, 2021 EClinicalMedicine. https://doi.org/10.1016/j.eclinm.2021.100797

8

China Study
Denifanstat Through Successful Phase 2 and 3 Clinical Studies in Acne

Denifanstat Phase 3 in acne

- Moderate to severe acne
- Multi-center placebo controlled
- 1:1 randomization
- Double-blind
- Once daily oral dosing
- 480 patients in China



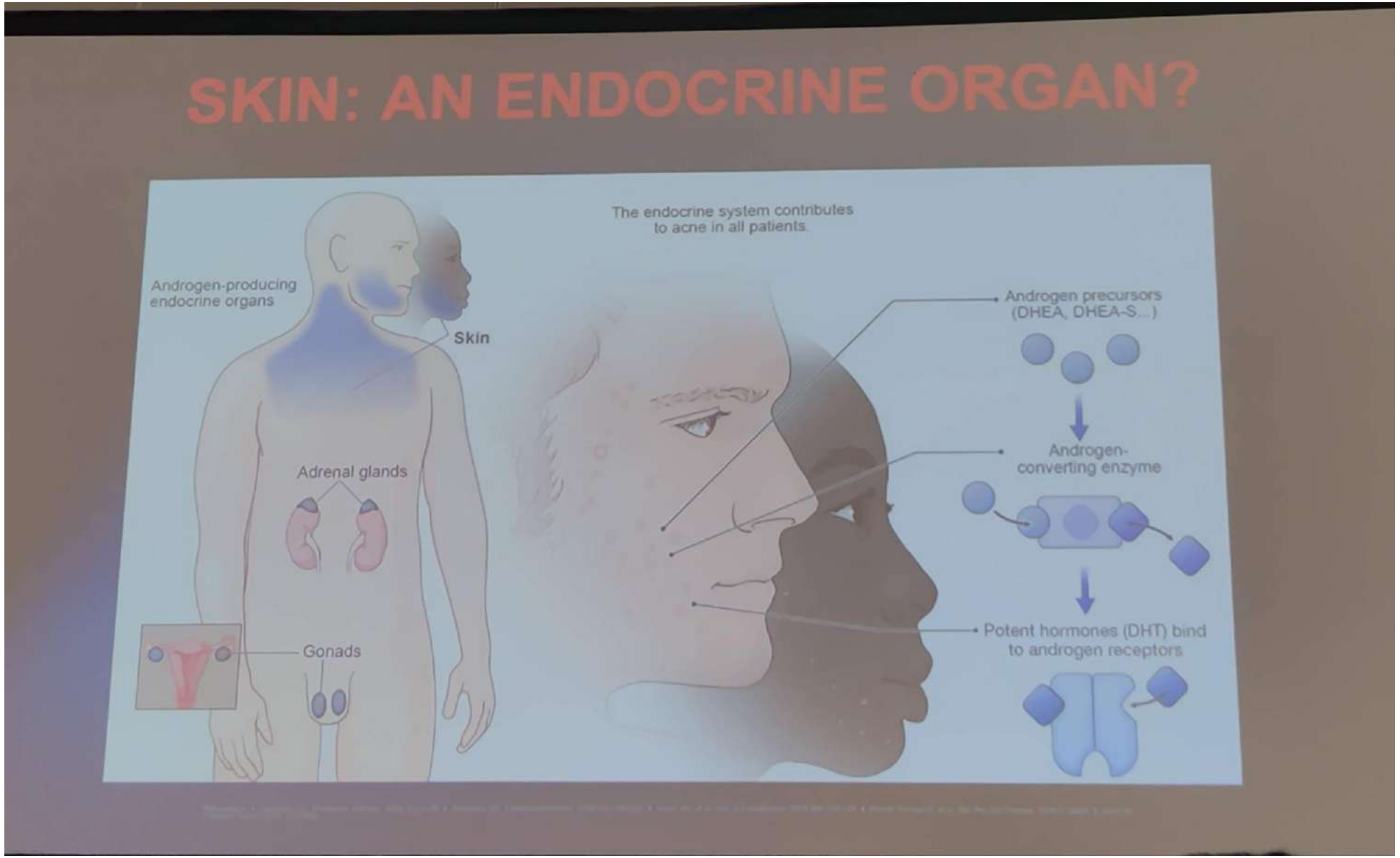
Primary endpoints at week 12

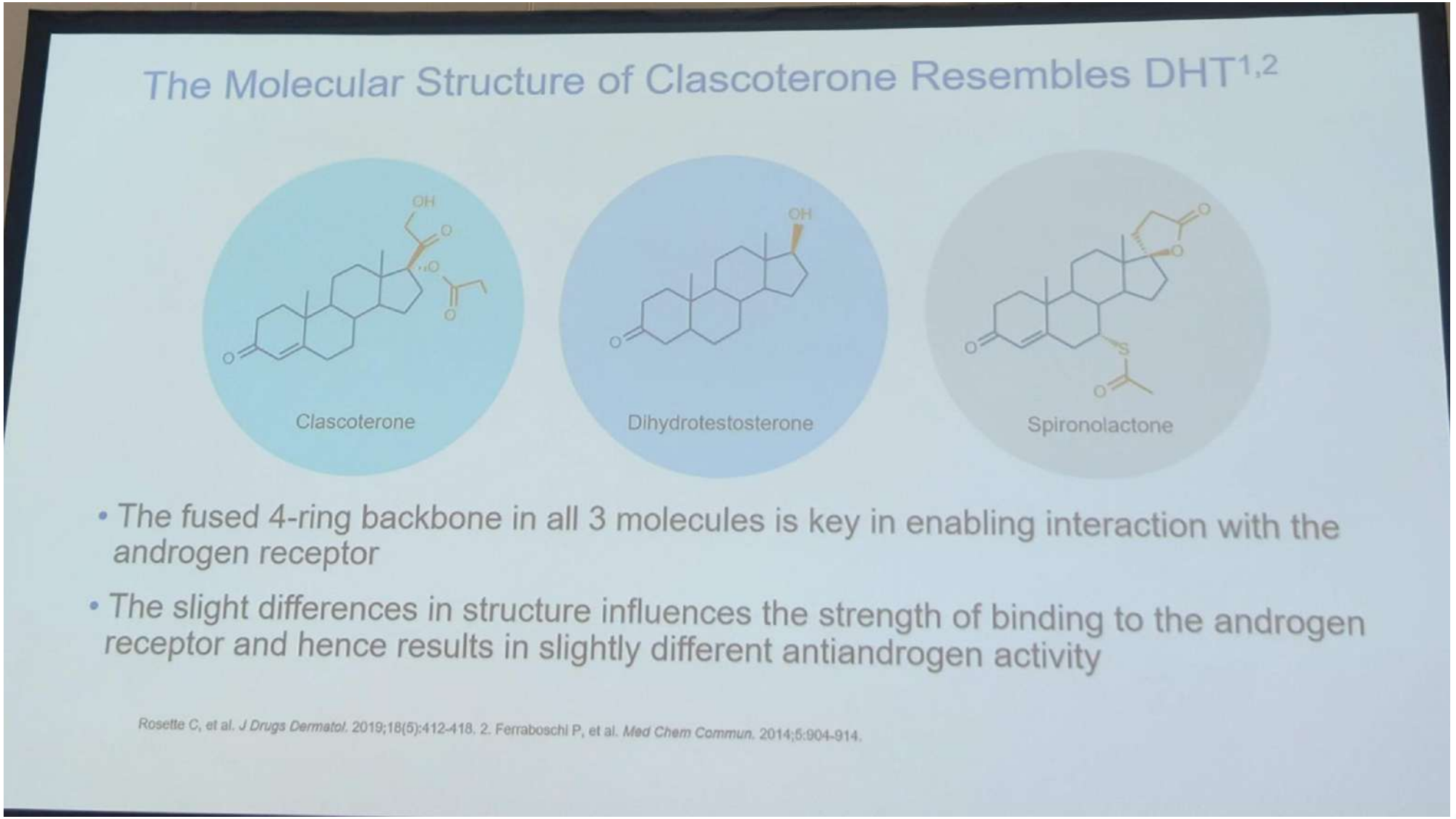
- % patients who receive IGA success (defined as at least a 2-point reduction in IGA from baseline, and an IGA of 0 or 1 at week 12)
- % change of total lesion counts from baseline
- % change of inflammatory lesion counts from baseline

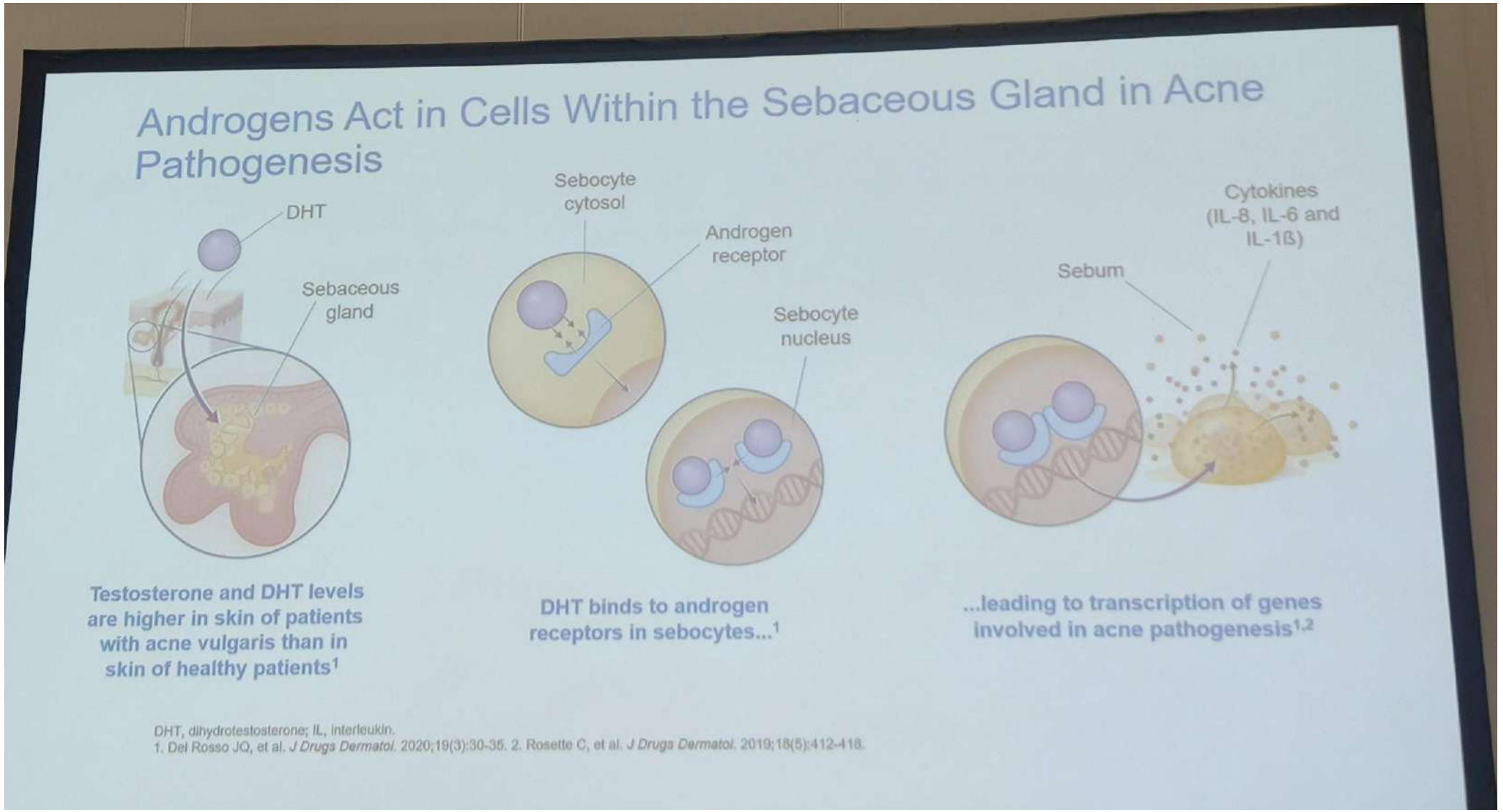
Key secondary endpoint at week 12

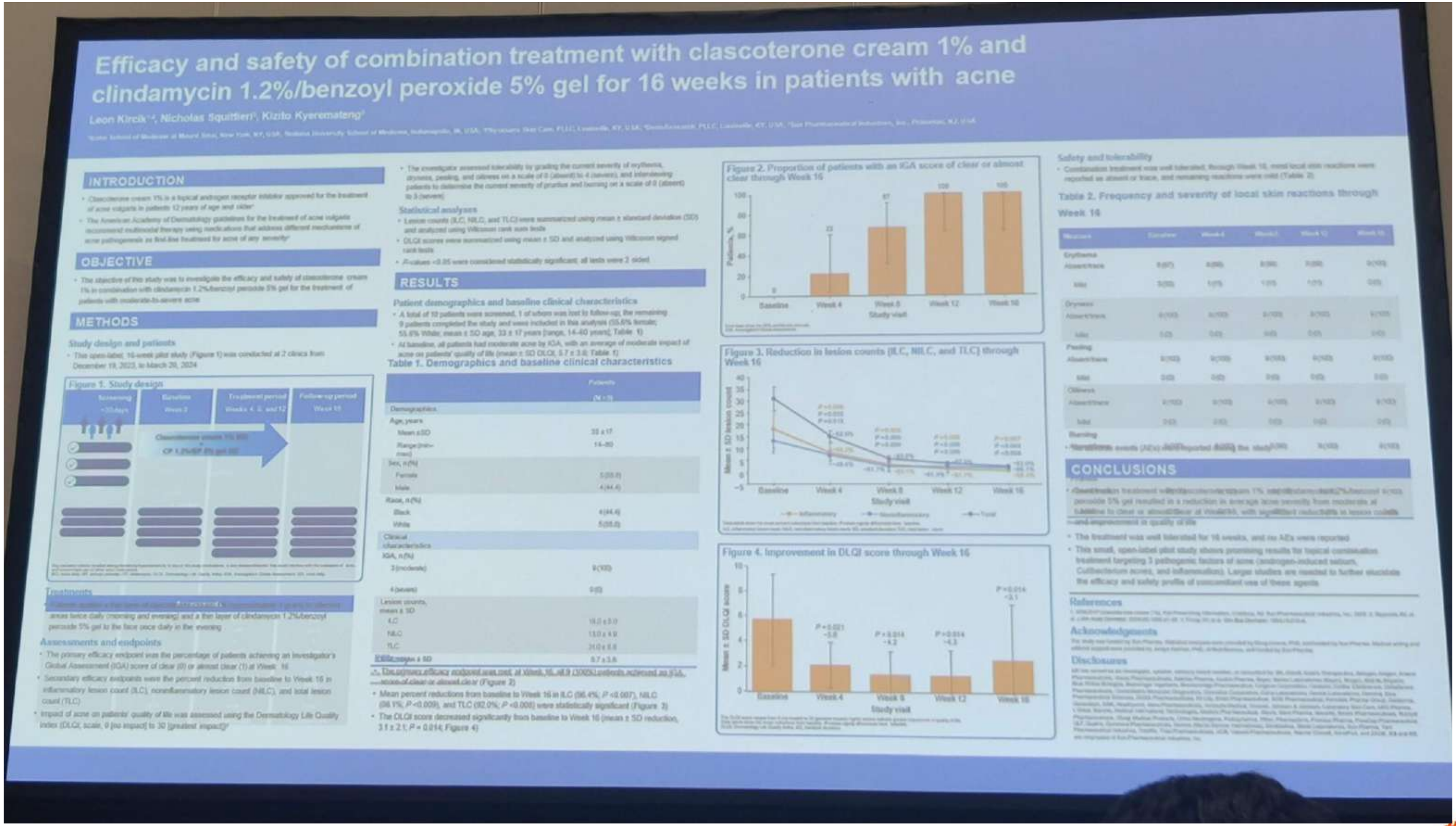
- % change of non-inflammatory lesion counts from baseline

1. ClinicalTrials.gov. NCT06192264. Study ASC40-303. https://clinicaltrials.gov/study/NCT06192264. 2. ClinicalTrials.gov. NCT06248008. Study ASC40-304. https://clinicaltrials.gov/study/NCT06248008.


SKIN: AN ENDOCRINE ORGAN?
The endocrine system contributes to acne in all patients
Androgen-producing endocrine organs
Skin
Adrenal glands
Gonads
Androgen precursors (DHEA, DHEA-S...)
Androgen-converting enzyme
Potent hormones (DHT) bind to androgen receptors

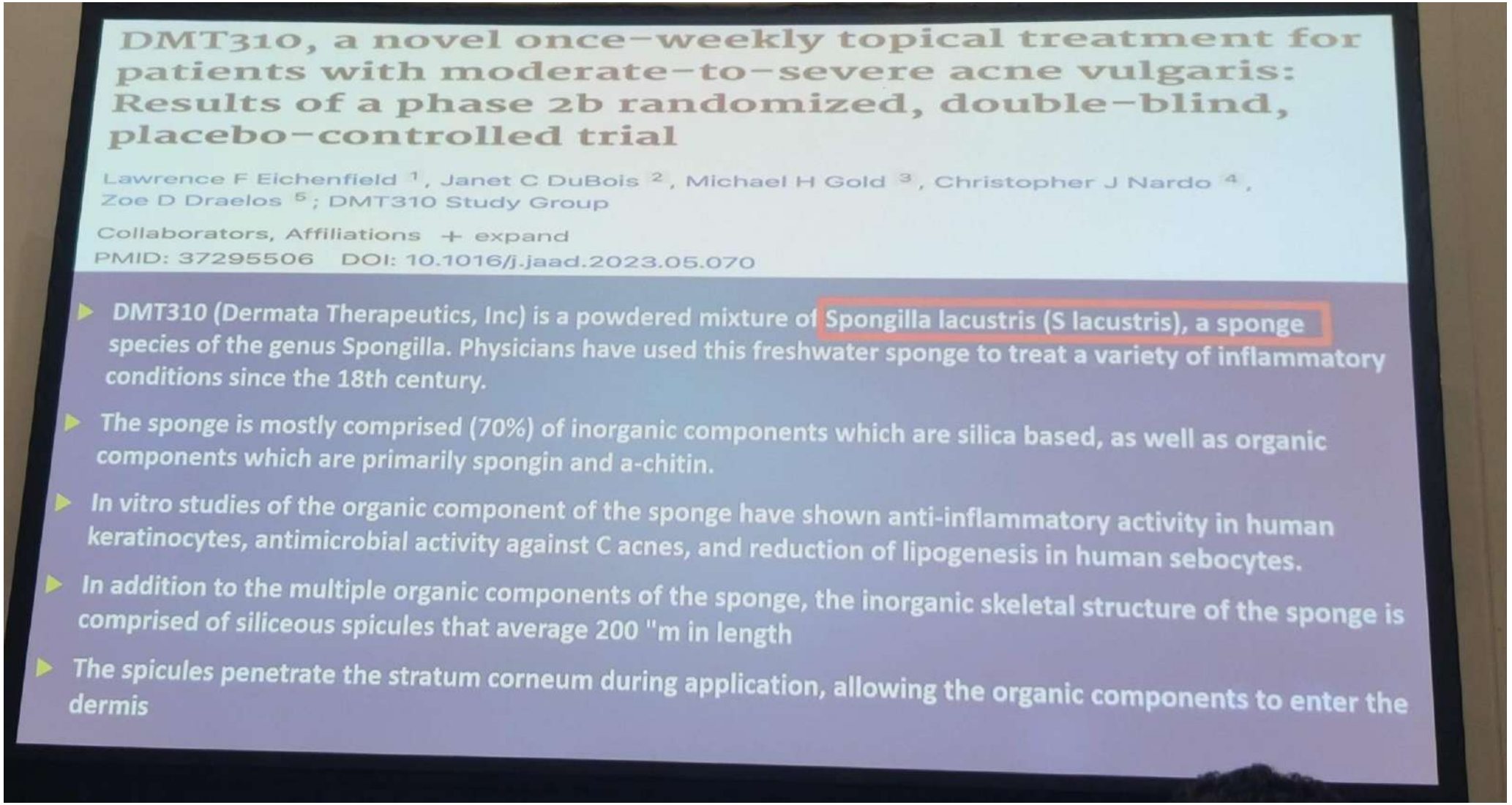

The Molecular Structure of Clascoterone Resembles DHT[1,2]
OH
O
O
O
Clascoterone
OH
O
Dihydrotestosterone
O
O
O
S
O
Spironolactone
• The fused 4-ring backbone in all 3 molecules is key in enabling interaction with the androgen receptor
• The slight differences in structure influences the strength of binding to the androgen receptor and hence results in slightly different antiandrogen activity
Rosette C, et al. J Drugs Dermatol. 2019;18(5):412-418. 2. Ferraboschi P, et al. Med Chem Commun. 2014;5:904-914.


Androgens Act in Cells Within the Sebaceous Gland in Acne Pathogenesis
DHT
Sebaceous gland
Sebocyte cytosol
Androgen receptor
Sebocyte nucleus
Cytokines (IL-8, IL-6 and IL-1ß)
Sebum
Testosterone and DHT levels are higher in skin of patients with acne vulgaris than in skin of healthy patients[1]
DHT binds to androgen receptors in sebocytes...[1]
...leading to transcription of genes involved in acne pathogenesis[1,2]
DHT, dihydrotestosterone; IL, interleukin.
1. Del Rosso JQ, et al. J Drugs Dermatol. 2020;19(3):30-35. 2. Rosette C, et al. J Drugs Dermatol. 2019;18(5):412-418.


Efficacy and safety of combination treatment with clascoterone cream 1% and clindamycin 1.2%/benzoyl peroxide 5% gel for 16 weeks in patients with acne
Leon Kircik, Nicholas Squittieri, Kizito Kyerematen
INTRODUCTION
OBJECTIVE
METHODS
Study design and patients
Figure 1. Study design
Treatments
Assessments and endpoints
Statistical analyses
RESULTS
Patient demographics and baseline clinical characteristics
Table 1. Demographics and baseline clinical characteristics
Figure 2. Proportion of patients with an IGA score of clear or almost clear through Week 16
Figure 3. Reduction in lesion counts (ILC, NILC, and TLC) through Week 16
Figure 4. Improvement in DLQI score through Week 16
Safety and tolerability
Table 2. Frequency and severity of local skin reactions through Week 16
CONCLUSIONS
References
Acknowledgments
Disclosures

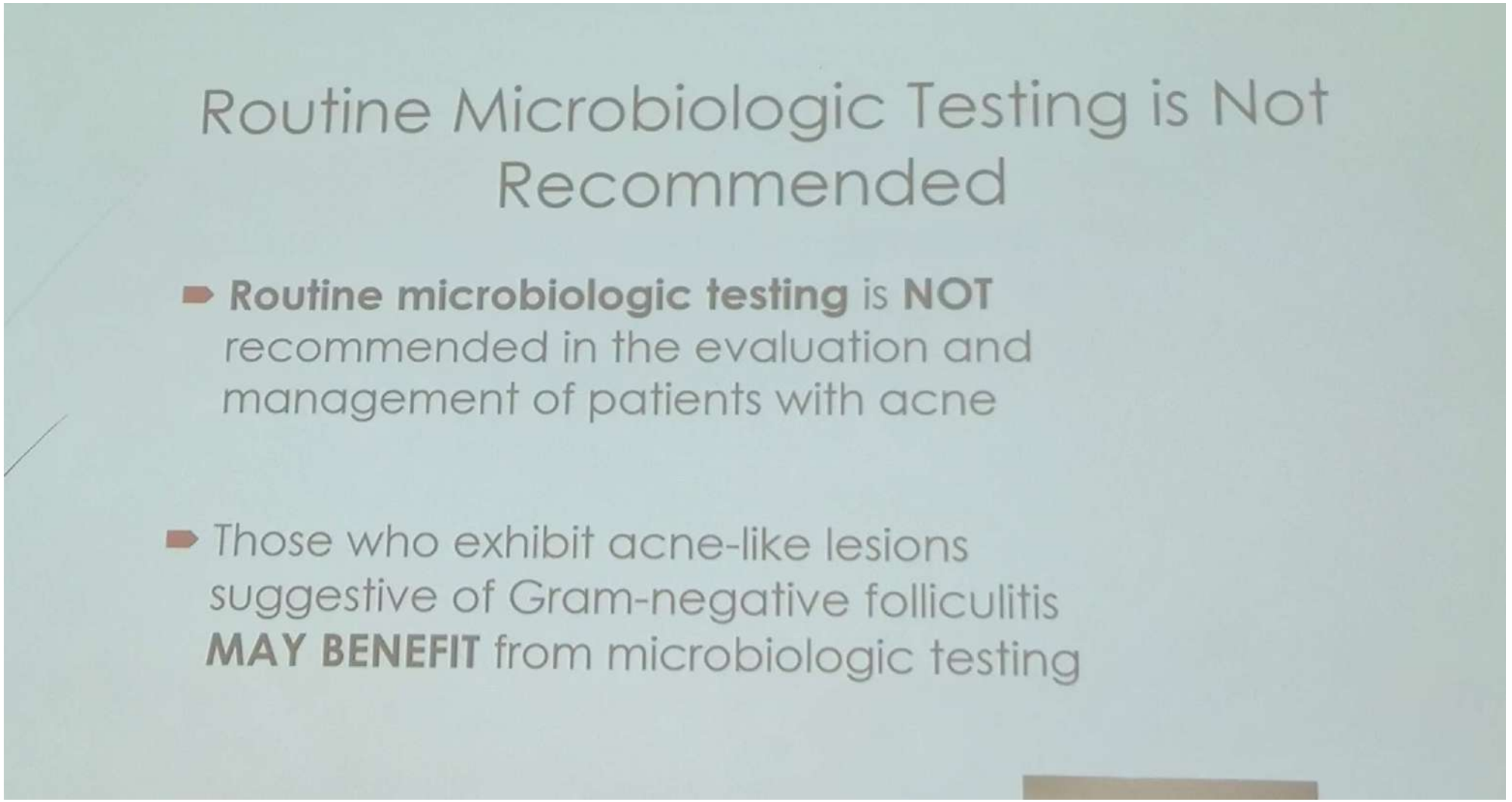
BENZOYL PEROXIDE CONTROVERSY

- BPO has been an important drug in the topical treatment of acne for more than 60 years. Although there have been multiple investigations on the safety of BPO or its metabolites on the skin, there have been no significant safety signals.
- The results of a recent analytical stability study published in Dermatology Times on March 6, 2024 have shown that


DMT310, a novel once-weekly topical treatment for patients with moderate-to-severe acne vulgaris: Results of a phase 2b randomized, double-blind, placebo-controlled trial
Lawrence F Eichenfield [1], Janet C DuBois [2], Michael H Gold [3], Christopher J Nardo [4], Zoe D Draelos [5]; DMT310 Study Group
Collaborators, Affiliations + expand
PMID: 37295506 DOI: 10.1016/j.jaad.2023.05.070
DMT310 (Dermata Therapeutics, Inc) is a powdered mixture of Spongilla lacustris (S lacustris), a sponge species of the genus Spongilla. Physicians have used this freshwater sponge to treat a variety of inflammatory conditions since the 18th century.
The sponge is mostly comprised (70%) of inorganic components which are silica based, as well as organic components which are primarily spongin and a-chitin.
In vitro studies of the organic component of the sponge have shown anti-inflammatory activity in human keratinocytes, antimicrobial activity against C acnes, and reduction of lipogenesis in human sebocytes.
In addition to the multiple organic components of the sponge, the inorganic skeletal structure of the sponge is comprised of siliceous spicules that average 200 "m in length
The spicules penetrate the stratum corneum during application, allowing the organic components to enter the dermis

Oral Antibiotics for Acne

Jonette Elizabet Keri

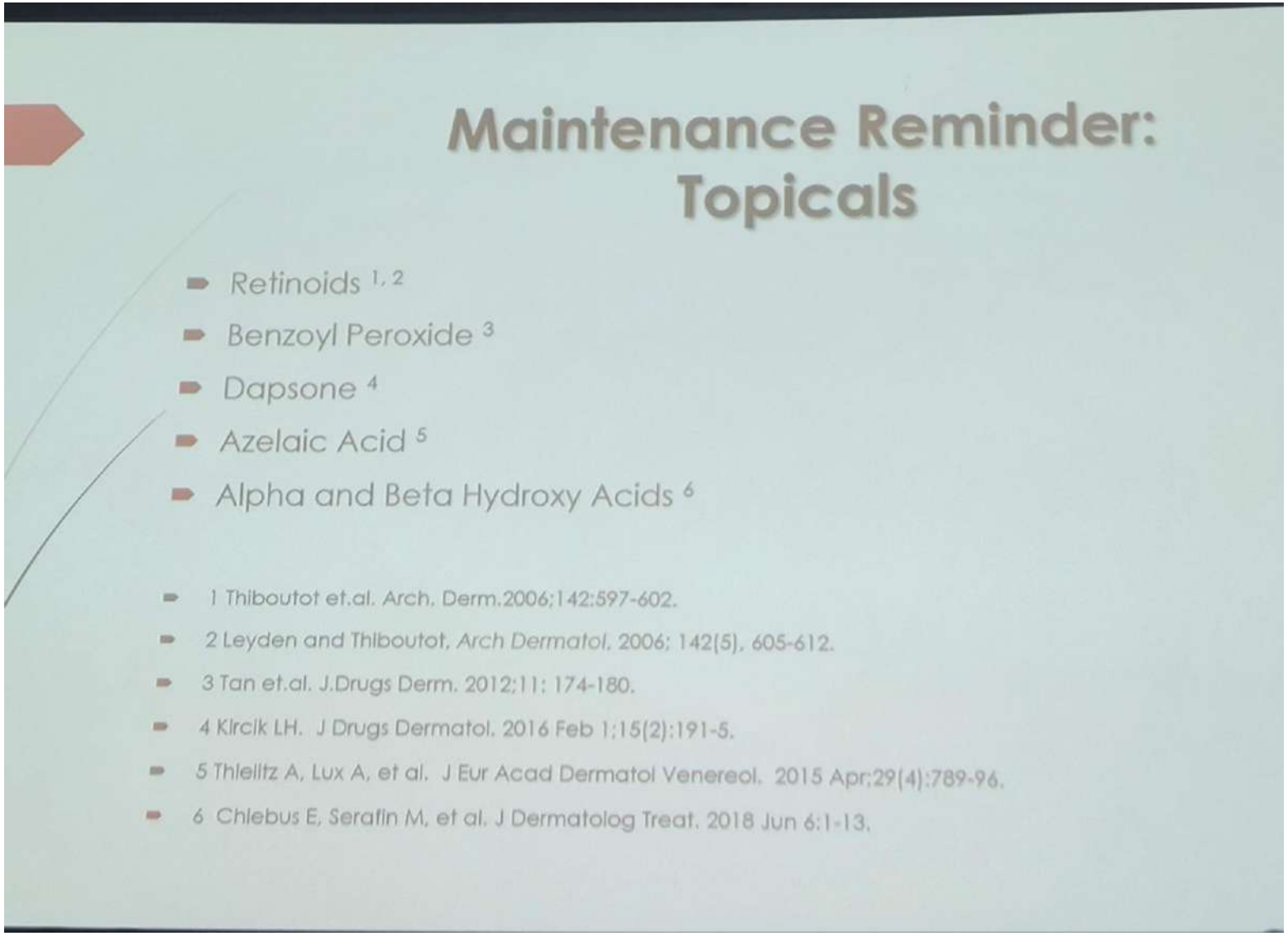

Routine Microbiologic Testing is Not Recommended
Routine microbiologic testing is NOT recommended in the evaluation and management of patients with acne
Those who exhibit acne-like lesions suggestive of Gram-negative folliculitis MAY BENEFIT from microbiologic testing

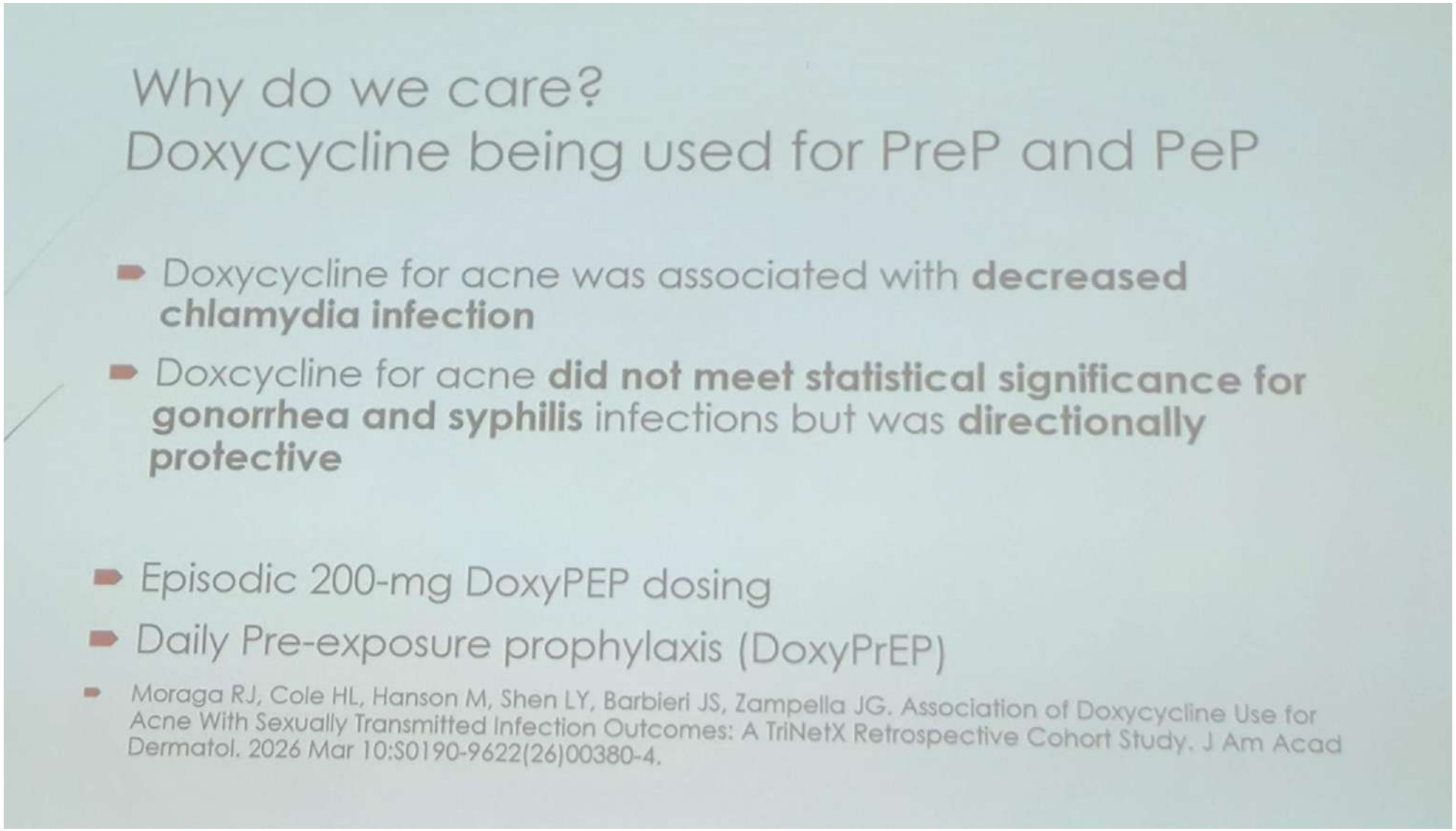
Low-dose, biphasic oral minocycline for Rosacea

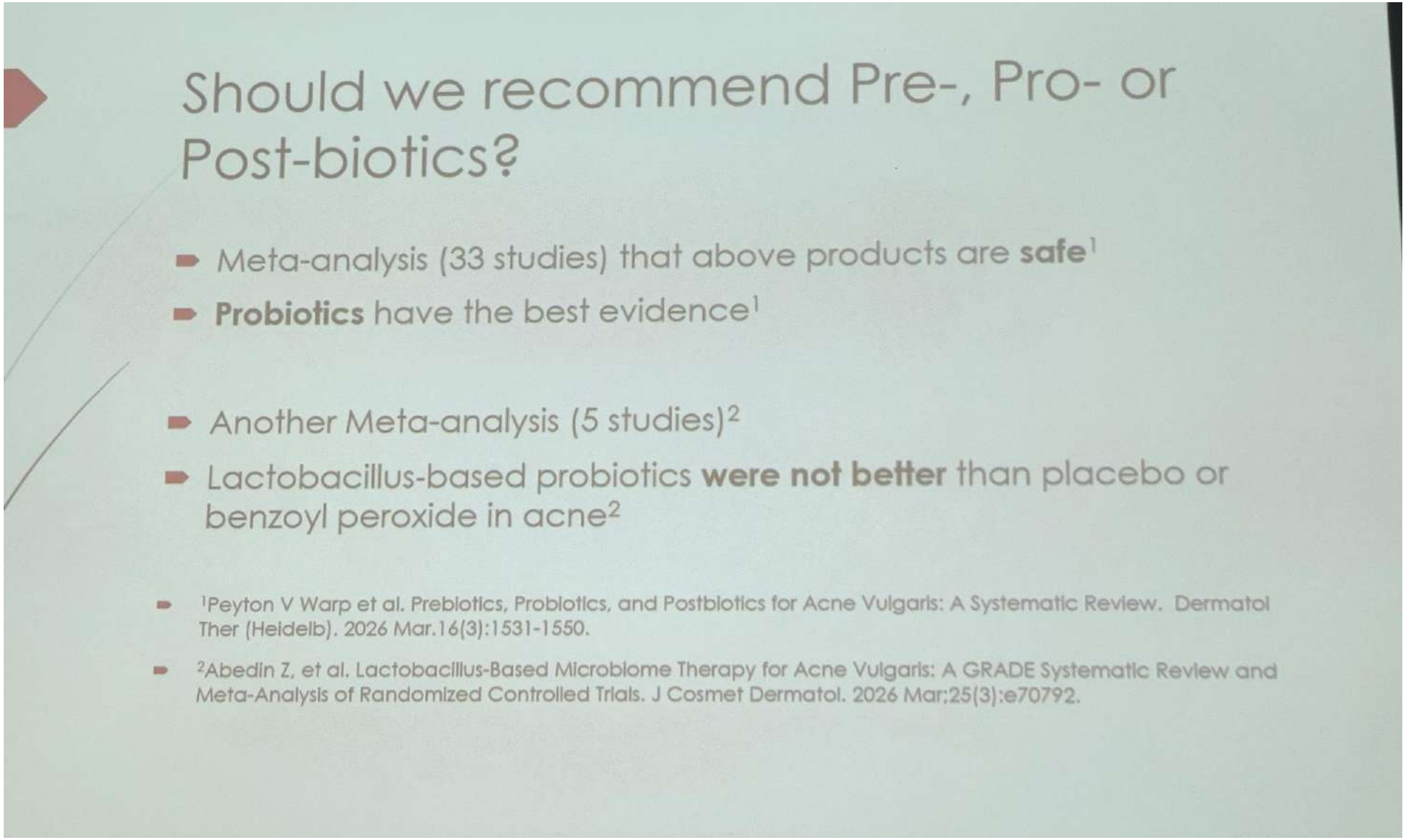
- Minocycline extended-release oral capsule 40mg
- FDA approved for the treatment
- For papulopustular rosacea
- For patients 18 years and older
- Off label use for acne

- Greater efficacy than placebo, 20mg dose of same medication, and doxycycline 40mg

- Tsianakas A, Pieber T, Baldwin H, et al. Minocycline Extended-Release Comparison with Doxycycline for the Treatment of Rosacea: A Randomized, Head-to-Head, Clinical Trial. J Clin Aesthet Dermatol. 2021 Dec;14(12):16-23.


Maintenance Reminder: Topicals
Retinoids 1, 2
Benzoyl Peroxide 3
Dapsone 4
Azelaic Acid 5
Alpha and Beta Hydroxy Acids 6
1 Thiboutot et.al. Arch. Derm.2006;142:597-602.
2 Leyden and Thiboutot, Arch Dermatol. 2006; 142(5), 605-612.
3 Tan et.al. J.Drugs Derm. 2012;11: 174-180.
4 Kircik LH. J Drugs Dermatol. 2016 Feb 1;15(2):191-5.
5 Thielitz A, Lux A, et al. J Eur Acad Dermatol Venereol. 2015 Apr;29(4):789-96.
6 Chlebus E, Serafin M, et al. J Dermatolog Treat. 2018 Jun 6:1-13.


Why do we care?
Doxycycline being used for PreP and PeP
Doxycycline for acne was associated with decreased chlamydia infection
Doxcycline for acne did not meet statistical significance for gonorrhea and syphilis infections but was directionally protective
Episodic 200-mg DoxyPEP dosing
Daily Pre-exposure prophylaxis (DoxyPrEP)
Moraga RJ, Cole HL, Hanson M, Shen LY, Barbieri JS, Zampella JG. Association of Doxycycline Use for Acne With Sexually Transmitted Infection Outcomes: A TriNetX Retrospective Cohort Study. J Am Acad Dermatol. 2026 Mar 10:S0190-9622(26)00380-4.

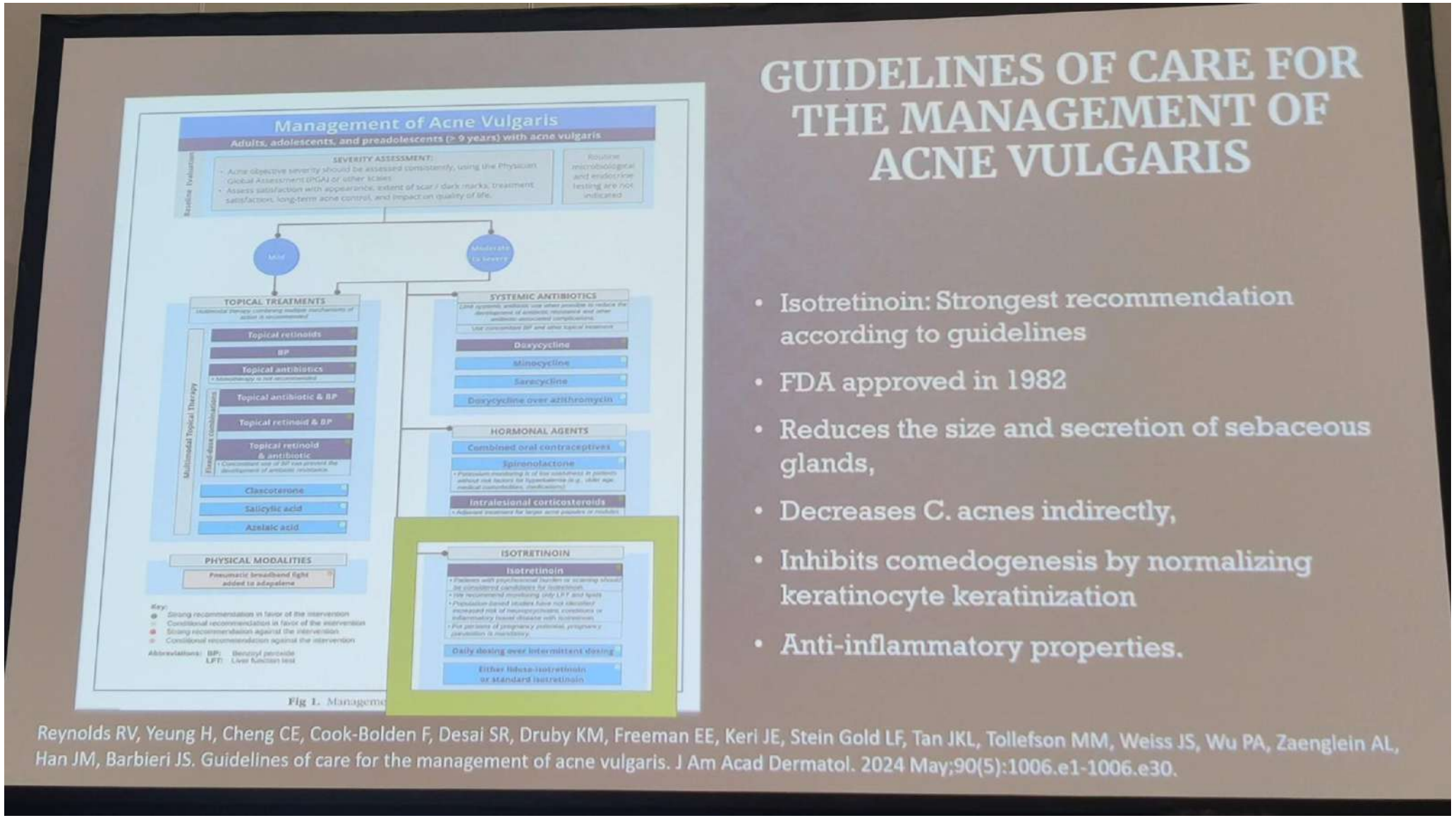

Should we recommend Pre-, Pro- or Post-biotics?
Meta-analysis (33 studies) that above products are safe[1]
Probiotics have the best evidence[1]
Another Meta-analysis (5 studies)[2]
Lactobacillus-based probiotics were not better than placebo or benzoyl peroxide in acne[2]
[1]Peyton V Warp et al. Prebiotics, Probiotics, and Postbiotics for Acne Vulgaris: A Systematic Review. Dermatol Ther (Heidelb). 2026 Mar.16(3):1531-1550.
[2]Abedin Z, et al. Lactobacillus-Based Microbiome Therapy for Acne Vulgaris: A GRADE Systematic Review and Meta-Analysis of Randomized Controlled Trials. J Cosmet Dermatol. 2026 Mar;25(3):e70792.

Isotretinoin for Acne

Linda F. Stein Gold

F019 – Acne Boot Camp
Isotretinoin for Acne, Linda F. Stein Gold

AAD ANNUAL MEETING 2026 highlights



GUIDELINES OF CARE FOR THE MANAGEMENT OF ACNE VULGARIS

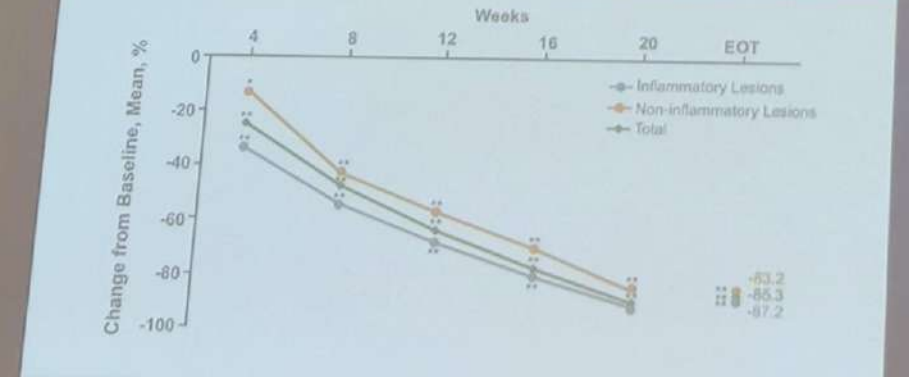
- Isotretinoin: Strongest recommendation according to guidelines
- FDA approved in 1982
- Reduces the size and secretion of sebaceous glands,
- Decreases C. acnes indirectly,
- Inhibits comedogenesis by normalizing keratinocyte keratinization
- Anti-inflammatory properties.

Reynolds RV, Yeung H, Cheng CE, Cook-Bolden F, Desai SR, Druby KM, Freeman EE, Keri JE, Stein Gold LF, Tan JKL, Tollefson MM, Weiss JS, Wu PA, Zaenglein AL, Han JM, Barbieri JS. Guidelines of care for the management of acne vulgaris. J Am Acad Dermatol. 2024 May;90(5):1006.e1-1006.e30.

PHASE IV, OPEN-LABEL, SINGLE-ARM STUDY WITH LIDOSE TECHNOLOGY ISOTRETINOIN TWICE DAILY *WITHOUT FOOD*

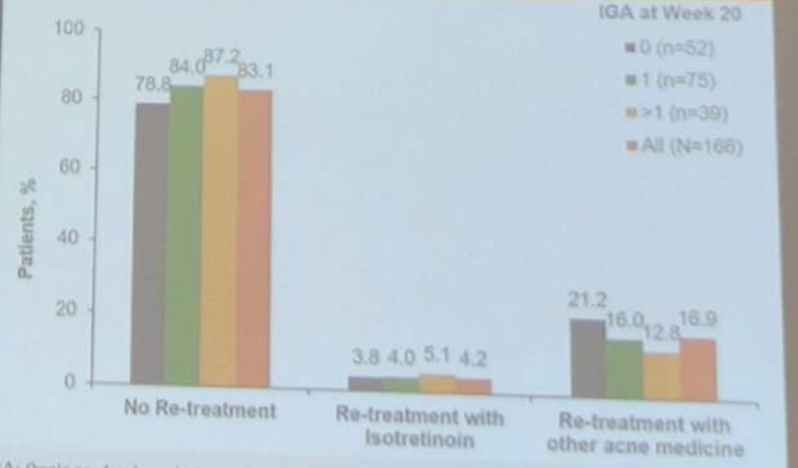
- 5-month (20-week) open-label active treatment period
- 2-year (104-week) post-treatment period

Active Treatment Period Secondary Efficacy Endpoint: Mean Change in Lesion Counts from Baseline to Week 20



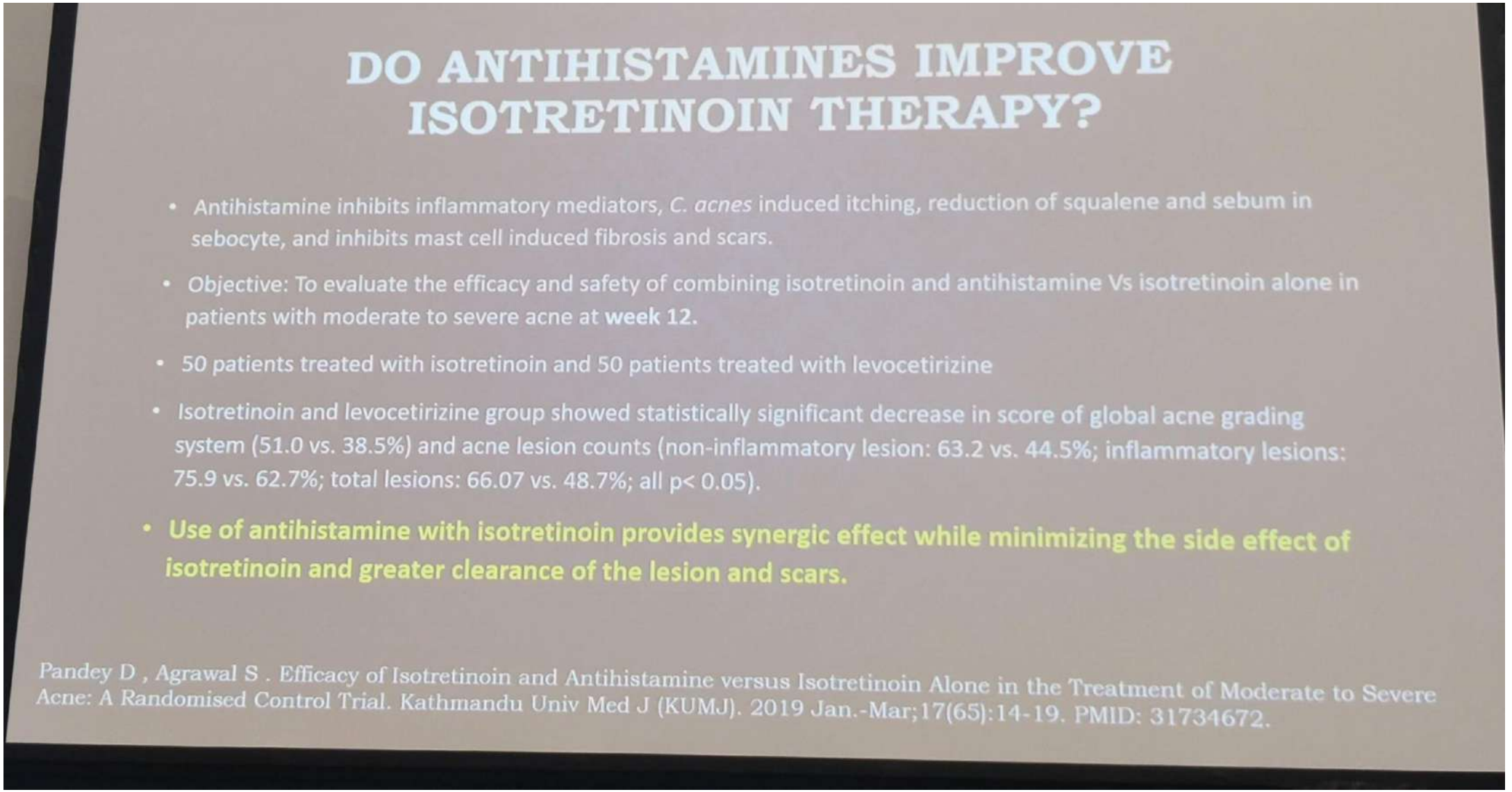
EOT values reflect the last visit for which a subject had data in the ATP. Differences between post-baseline and baseline values analyzed using paired t-tests. *$P \approx 0.0002$; **$P \leq 0.0001$. ATP, active treatment period; EOT, end of treatment

Re-treatment Rates in the Post-treatment Period[1]



IGA: 0=clear, 1=almost clear, 2=mild, 3=moderate, 4=severe, 5=very severe.
GA, Investigator's Global Assessment.

Del Rosso JQ, Stein Gold et al. *J Clin Aesthet Dermatol.* 2019 Nov;12(11):13-18.


DO ANTIHISTAMINES IMPROVE ISOTRETINOIN THERAPY?
• Antihistamine inhibits inflammatory mediators, C. acnes induced itching, reduction of squalene and sebum in sebocyte, and inhibits mast cell induced fibrosis and scars.
• Objective: To evaluate the efficacy and safety of combining isotretinoin and antihistamine Vs isotretinoin alone in patients with moderate to severe acne at week 12.
• 50 patients treated with isotretinoin and 50 patients treated with levocetirizine
• Isotretinoin and levocetirizine group showed statistically significant decrease in score of global acne grading system (51.0 vs. 38.5%) and acne lesion counts (non-inflammatory lesion: 63.2 vs. 44.5%; inflammatory lesions: 75.9 vs. 62.7%; total lesions: 66.07 vs. 48.7%; all p< 0.05).
• Use of antihistamine with isotretinoin provides synergic effect while minimizing the side effect of isotretinoin and greater clearance of the lesion and scars.
Pandey D , Agrawal S . Efficacy of Isotretinoin and Antihistamine versus Isotretinoin Alone in the Treatment of Moderate to Severe Acne: A Randomised Control Trial. Kathmandu Univ Med J (KUMJ). 2019 Jan.-Mar;17(65):14-19. PMID: 31734672.

INCREASED RISK OF INFLAMMATORY BOWEL DISEASE: ACNE, ANTIBIOTICS OR ISOTRETINOIN?

	No acne			Acne				
Outcomes	Patients, total, n	Patients with incident outcome, n	IR/1000	Patients, total, n	Patients with incident outcome, n	IR/1000	Odds ratio	95% CI
Any inflammatory bowel disease	353,381	293	0.83	351,670	415	1.18	1.42	1.23-1.65
Crohn's disease	353,942	191	0.54	352,723	297	0.84	1.56	1.30-1.87
Ulcerative colitis	354,226	158	0.45	353,363	255	0.72	1.62	1.33-1.97

	Acne			Oral tetracycline-class antibiotic				
Outcomes	Patients, total, n	Patients with incident outcome, n	IR/1000	Patients, total, n	Patients with incident outcome, n	IR/1000	Odds ratio	95% CI
Any inflammatory bowel disease	144,711	191	1.32	144,986	191	1.32	1.00	0.82-1.22
Crohn's disease	145,264	130	0.89	145,436	142	0.98	1.09	0.86-1.38
Ulcerative colitis	145,602	142	0.98	145,723	111	0.76	0.78	0.61-1.00

Table IV. One-year incidence of inflammatory bowel disease among patients with acne treated with isotretinoin in comparison to patients with acne treated without oral tetracycline-class antibiotics, spironolactone, or isotretinoin

	Acne			Isotretinoin				
Outcomes	Patients, total, n	Patients with incident outcome, n	IR/1000	Patients, total, n	Patients with incident outcome, n	IR/1000	Odds ratio	95% CI
Any inflammatory bowel disease	11,194	14	1.25	11,199	18	1.61	1.29	0.64-2.59
Crohn's disease	11,241	12	1.07	11,231	12	1.07	1.00	0.45-2.23
Ulcerative colitis	11,247	11	0.98	11,255	14	1.24	1.27	0.58-2.80

- There was a statistically significant association between acne and risk of incident IBD (odds ratio: 1.42; 95% confidence interval: 1.23-1.65).
- There was no statistically significant association between oral tetracycline-class antibiotic or isotretinoin exposure and IBD

Taylor MT, et al. A propensity score matched cohort study identifying an association of acne, but not oral antibiotic or isotretinoin use, with risk of incident inflammatory bowel disease. J Am Acad Dermatol. 2023 Jan 20:S0190-9622(23)00083-X.

Hormonal Therapies for Acne

Julie Claire Harper

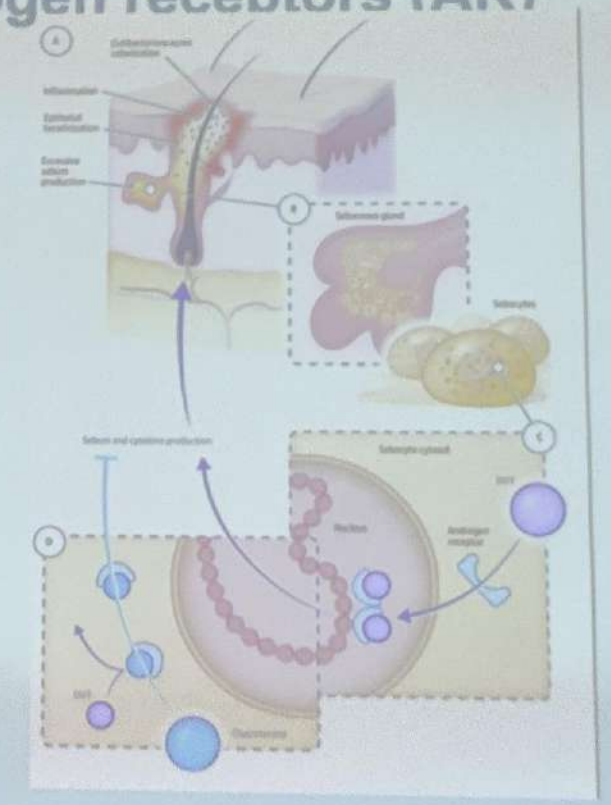
Los anticonceptivos orales tienen indicación aprobada en acné, para las pacientes que **no tienen contraindicación para ellos, que ya tienen menstruación, que no han respondido a tratamientos tópicos Y QUE DESEEN ANTICONCEPCIÓN.**

Clascoterone targets androgen receptors (AR)

-Topical anti-androgen

-Competitively binds androgen receptor and inhibits downstream sebum production and inflammatory pathways in acne

-Quickly metabolized to an inactive form=>limited systemic activity

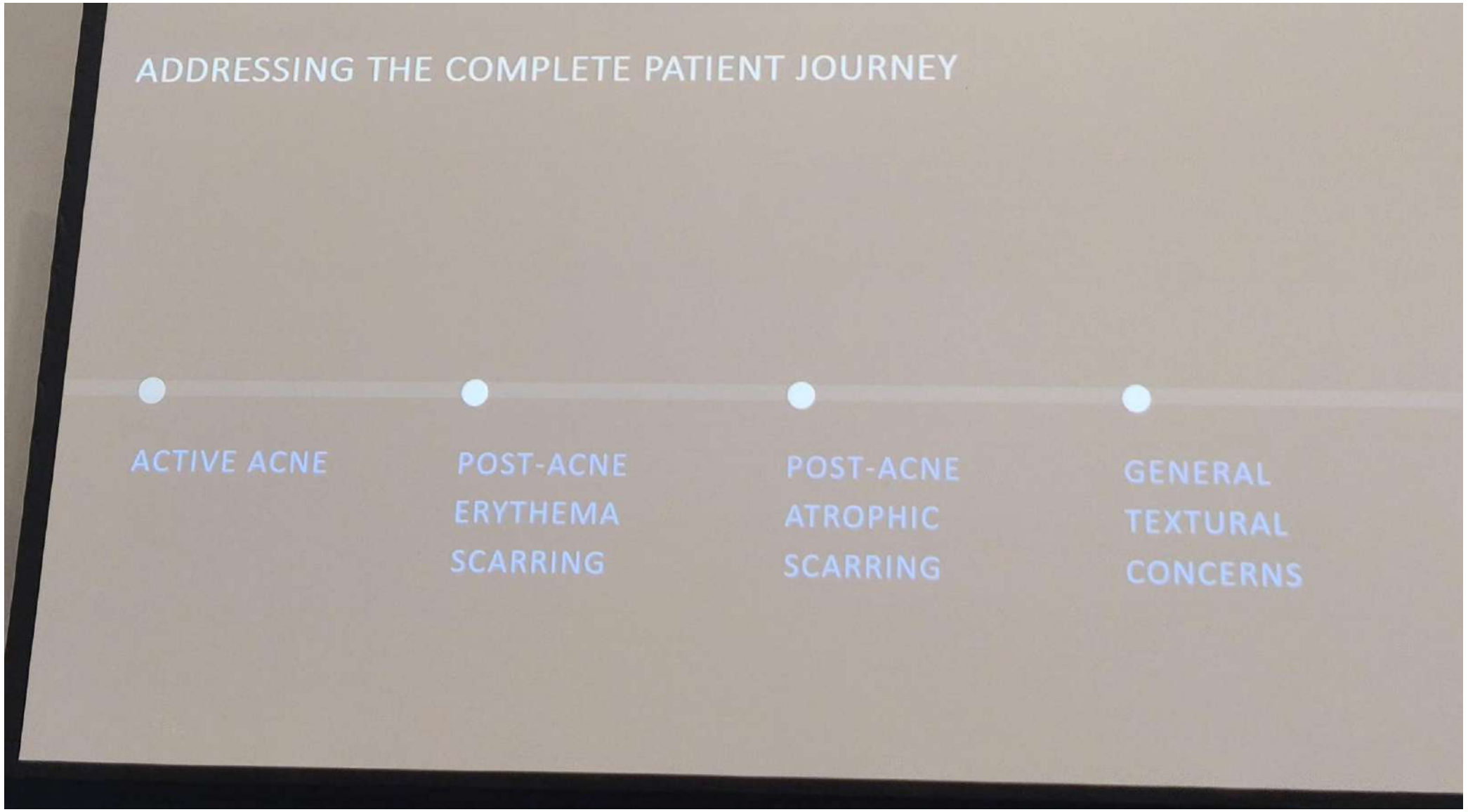


Hebert et al. JAMA Derm 2020; Apr 22: e200465.

Figure from Lai JJ et al. Arch Dermatol Res. 2012;304(7):499-510

Lasers & Light Sources for Acne

Michael H Gold


ADDRESSING THE COMPLETE PATIENT JOURNEY
ACTIVE ACNE
POST-ACNE ERYTHEMA SCARRING
POST-ACNE ATROPHIC SCARRING
GENERAL TEXTURAL CONCERNS

highlights
Denver, Colorado

AAD ANNUAL MEETING 2026

27 — 31
Marzo

U032 – Lasers & Energy Device in the Treatment of Acne

28/03/2026

Una iniciativa de:

AEDV 1909 ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

FUNDACIÓN AEDV PIEL SANA ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

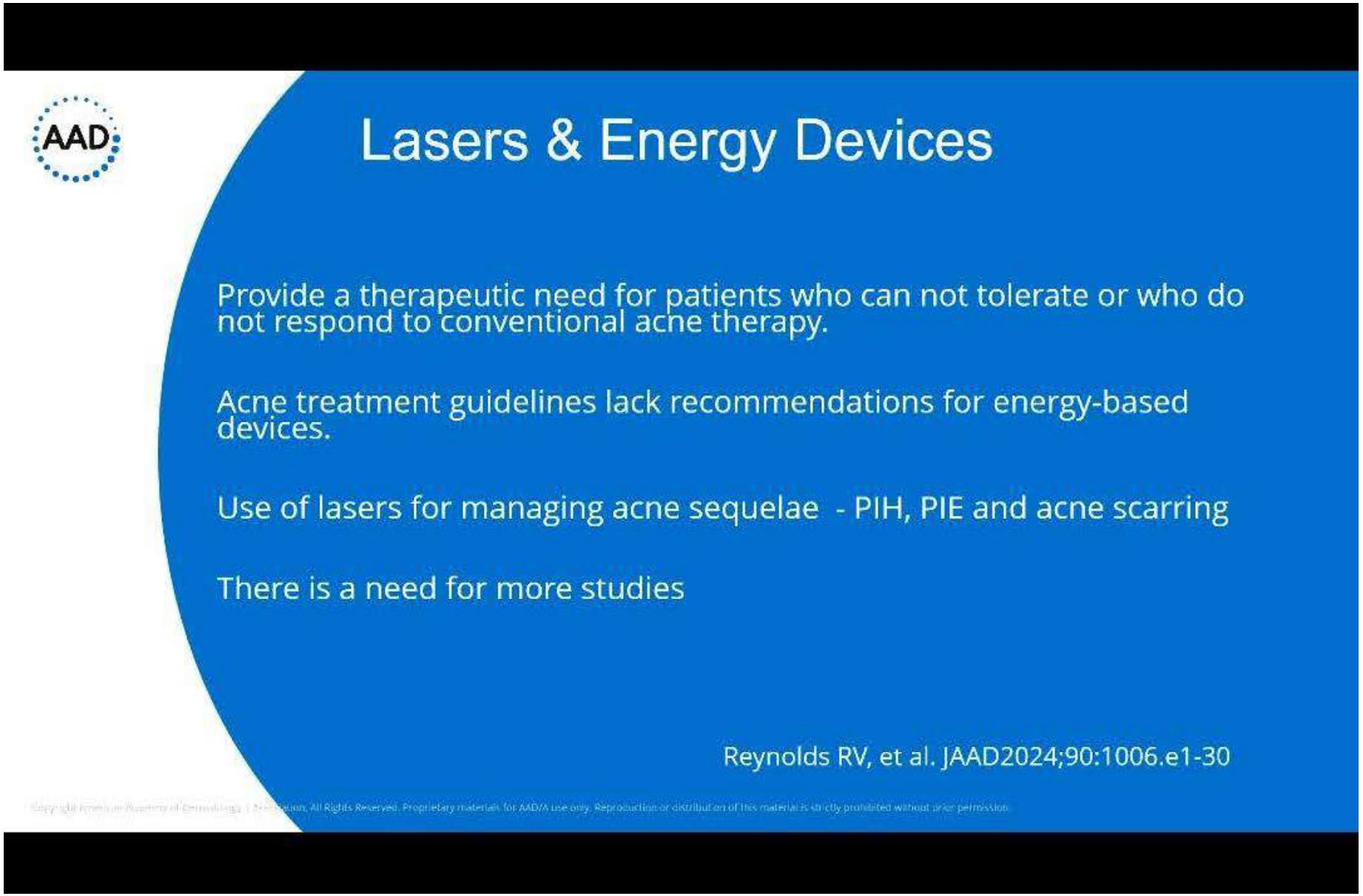
#AEDVenAAD2026

Con el patrocinio de:

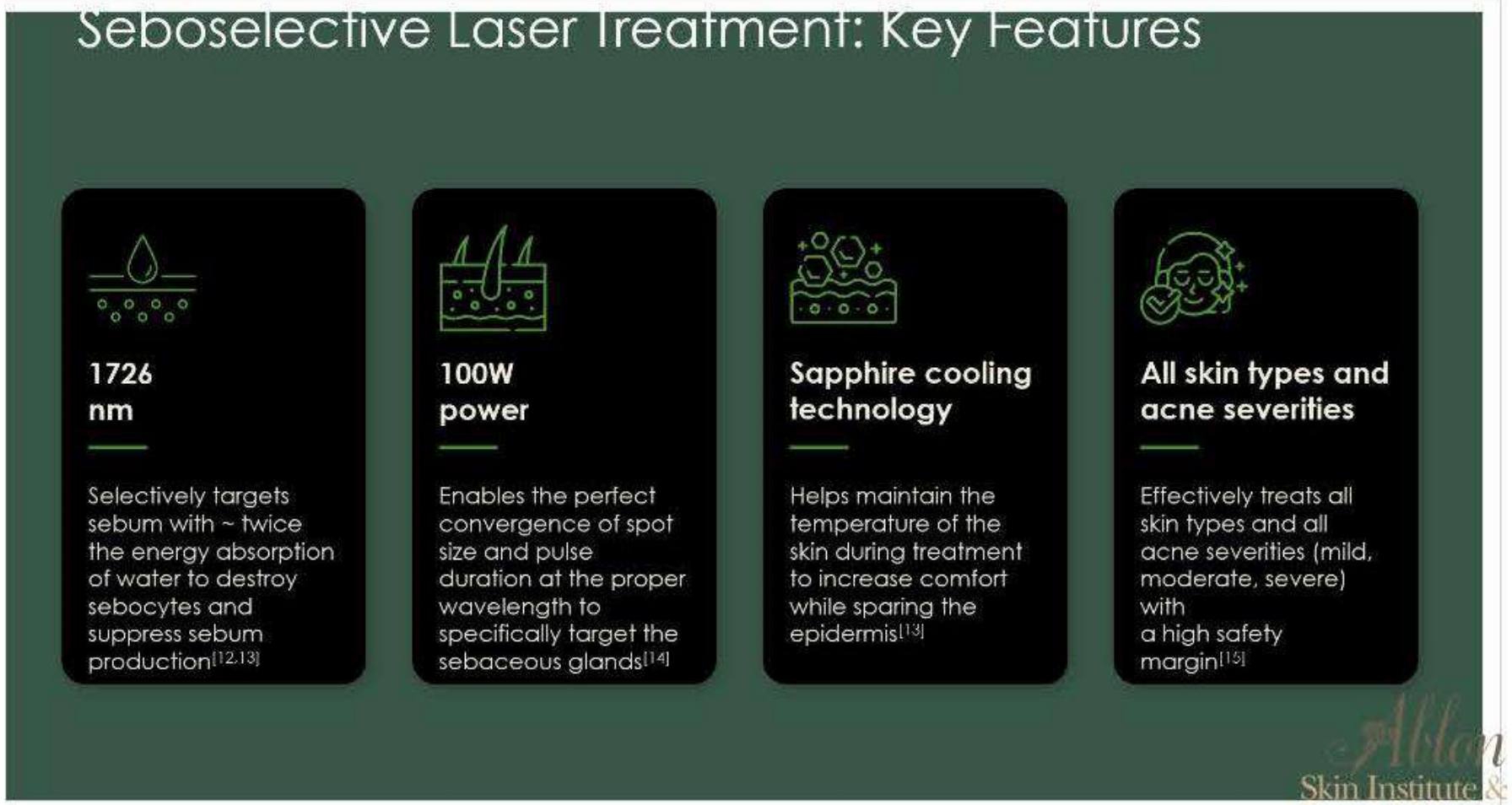
ucb

Lasers & Light Sources for Acne

Glynis R. Ablon

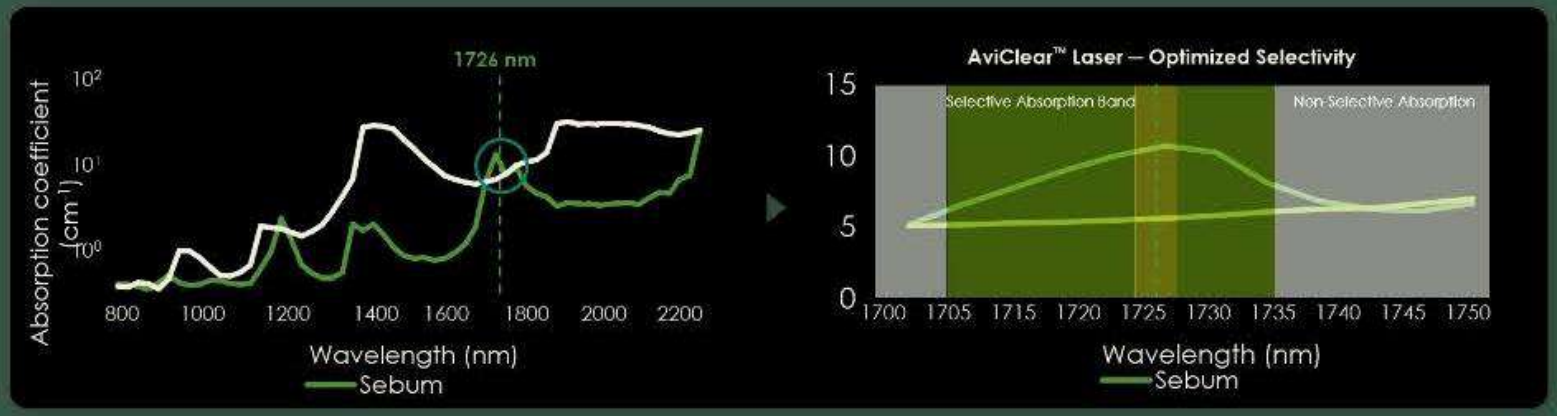

AAD
Lasers & Energy Devices
Provide a therapeutic need for patients who can not tolerate or who do not respond to conventional acne therapy.
Acne treatment guidelines lack recommendations for energy-based devices.
Use of lasers for managing acne sequelae - PIH, PIE and acne scarring
There is a need for more studies
Reynolds RV, et al. JAAD2024;90:1006.e1-30


DEVICES I:
LASERS
AviClear®
1726nm
CUTERA
Ablon
Skin Institute &
Research Center


Seboselective Laser Treatment: Key Features
1726 nm
Selectively targets sebum with ~ twice the energy absorption of water to destroy sebocytes and suppress sebum production[12,13]
100W power
Enables the perfect convergence of spot size and pulse duration at the proper wavelength to specifically target the sebaceous glands[14]
Sapphire cooling technology
Helps maintain the temperature of the skin during treatment to increase comfort while sparing the epidermis[13]
All skin types and acne severities
Effectively treats all skin types and all acne severities (mild, moderate, severe) with a high safety margin[15]
Ablon Skin Institute & Research Center

Selective Absorption of 1726 nm

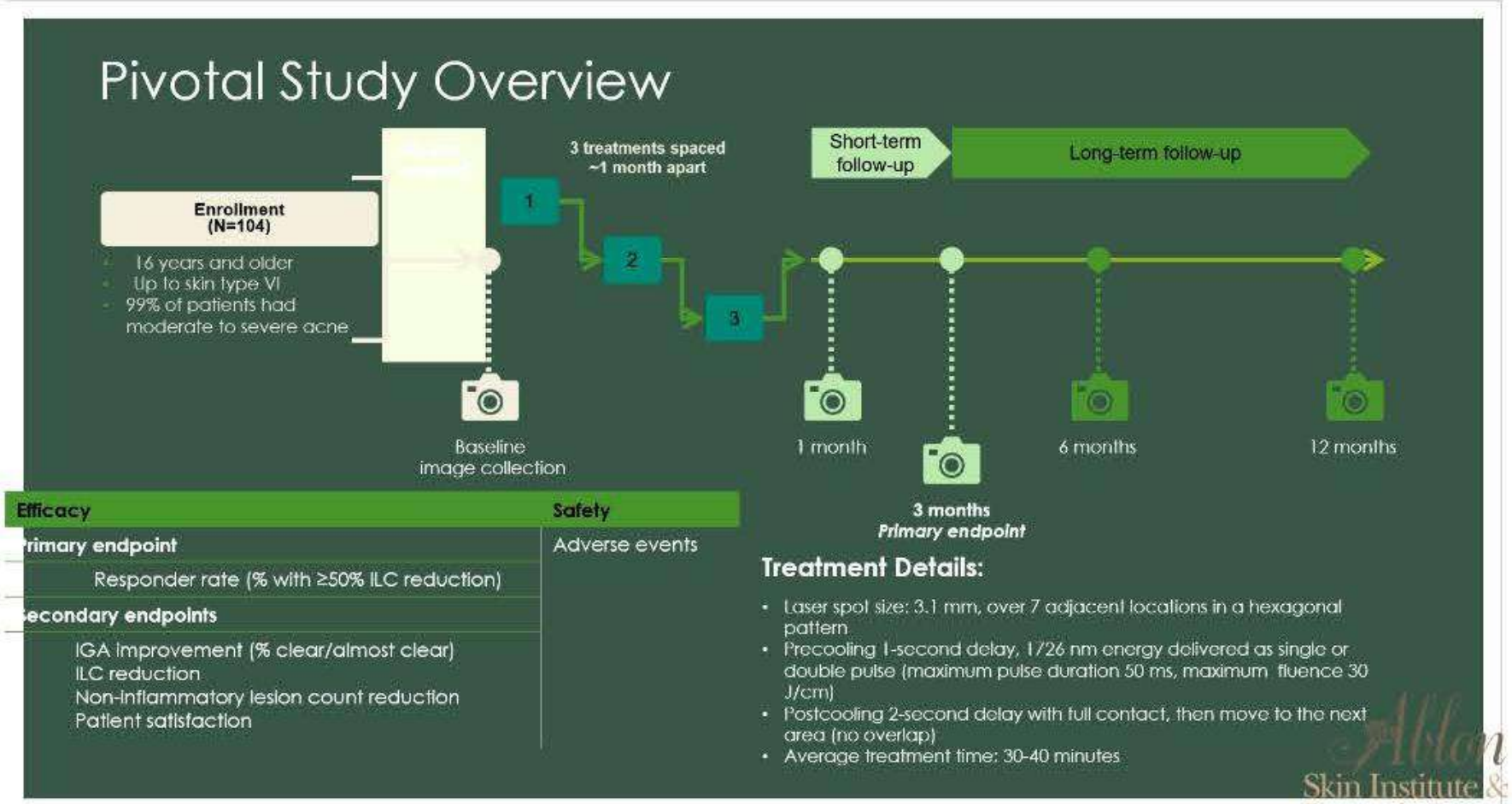
- 1726 nm is clinically proven to absorb ~2x more energy in sebum compared to H2O[12,13]
- The 1726 nm wavelength selectively targets and damages sebocytes suppressing sebum production[13]



Source: Ezerskaia et al. 2018

Ablon Skin Institute & Research Center


Histological Evidence
"Treat to Fluence"
Protocol[13,16]
Histological evaluation shows that the 1726 nm laser can selectively target sebaceous glands without compromising the epidermis.
4x
SG
SG
SG
SG
10x
Pre-treatment:
Healthy sebaceous gland with nucleated sebocytes
5 days post-treatment
• Sebaceous glands with total necrosis
• Epidermis remains intact
Ablon Skin Institute & Research Center


Pivotal Study Overview
Enrollment (N=104)
16 years and older
Up to skin type VI
99% of patients had moderate to severe acne
3 treatments spaced ~1 month apart
1
2
3
Short-term follow-up
Long-term follow-up
Baseline image collection
1 month
3 months
Primary endpoint
6 months
12 months
Efficacy
Primary endpoint
Responder rate (% with ≥50% ILC reduction)
Secondary endpoints
IGA improvement (% clear/almost clear)
ILC reduction
Non-inflammatory lesion count reduction
Patient satisfaction
Safety
Adverse events
Treatment Details:
Laser spot size: 3.1 mm, over 7 adjacent locations in a hexagonal pattern
Precooling 1-second delay, 1726 nm energy delivered as single or double pulse (maximum pulse duration 50 ms, maximum fluence 30 J/cm)
Postcooling 2-second delay with full contact, then move to the next area (no overlap)
Average treatment time: 30-40 minutes
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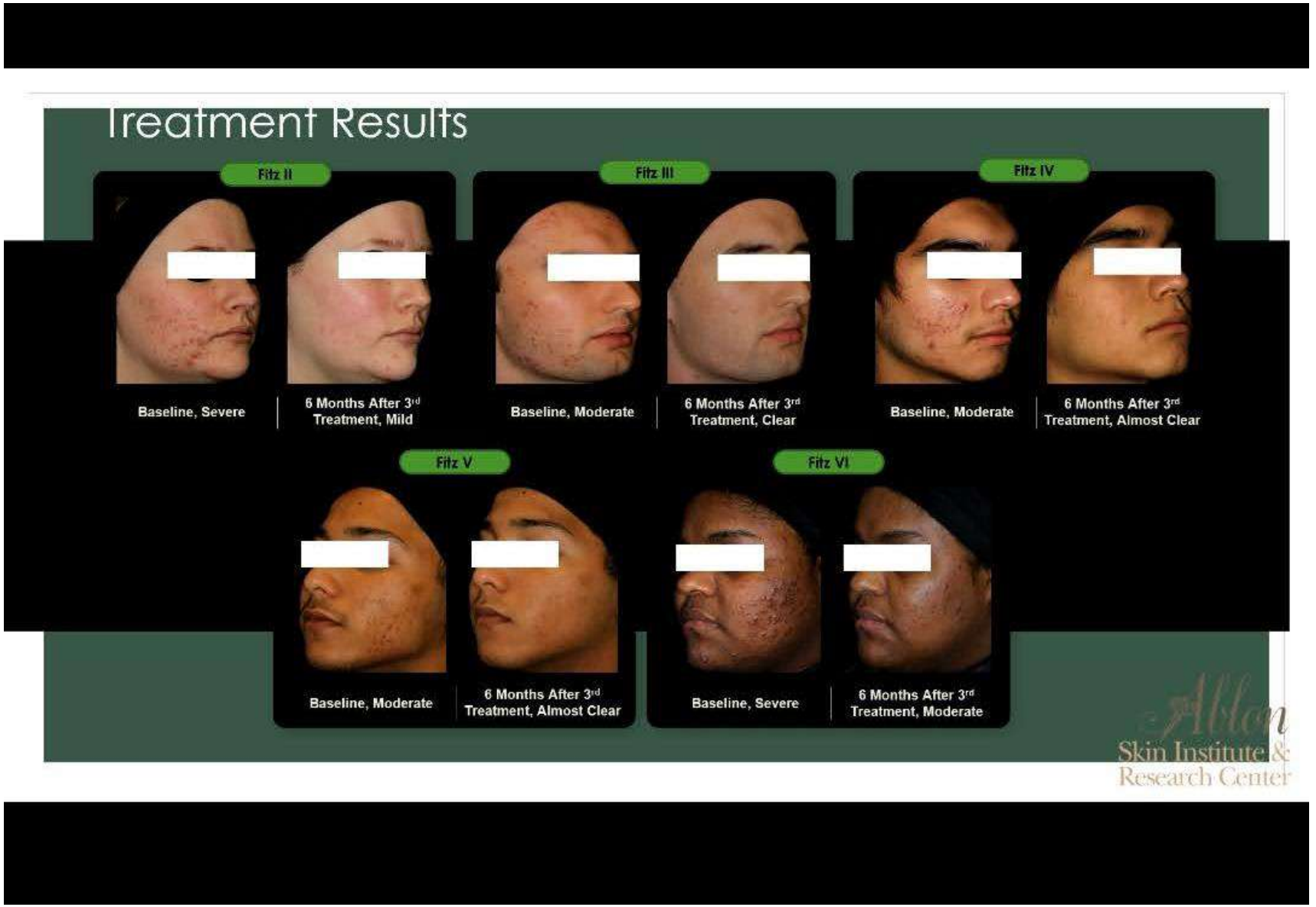
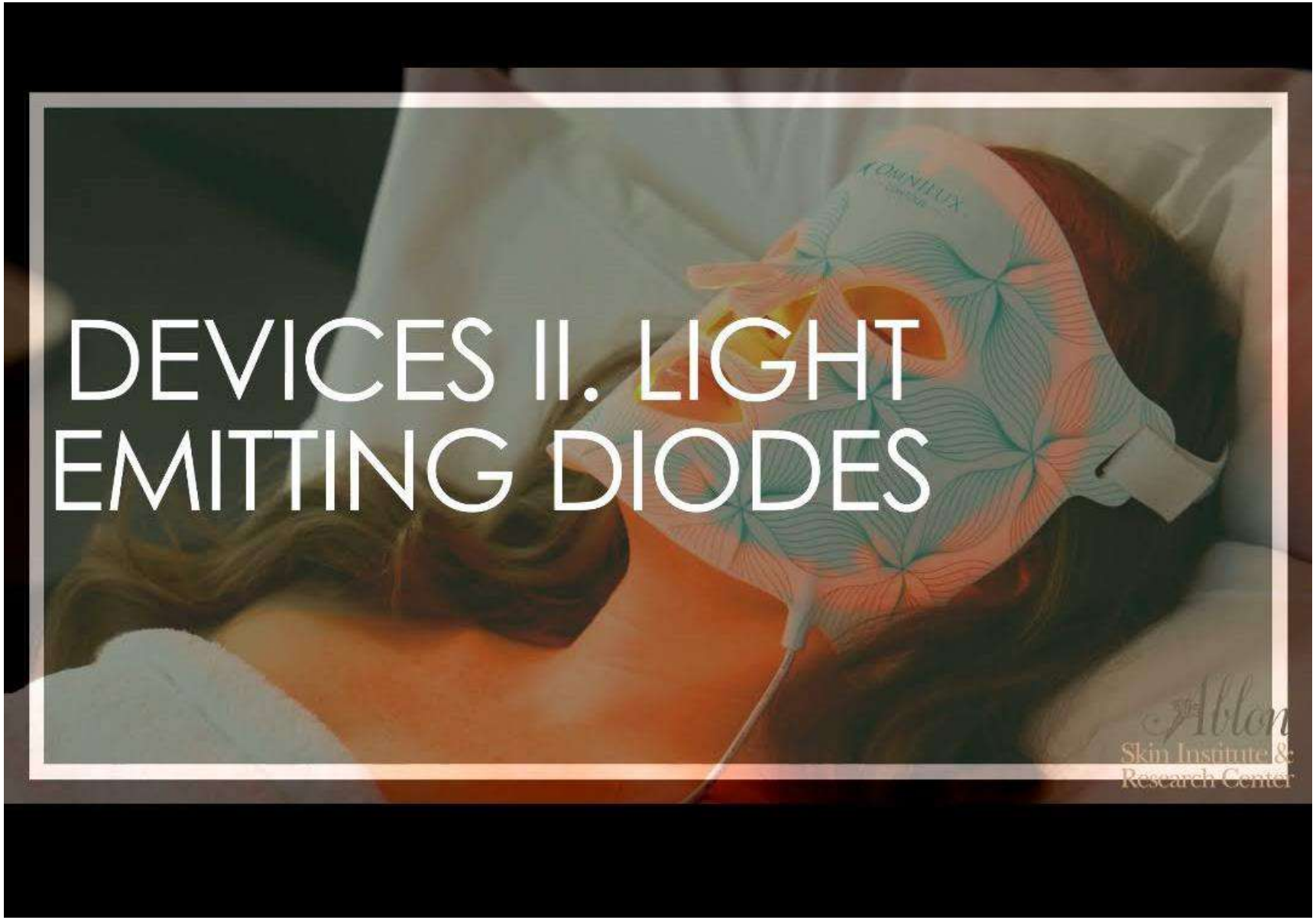
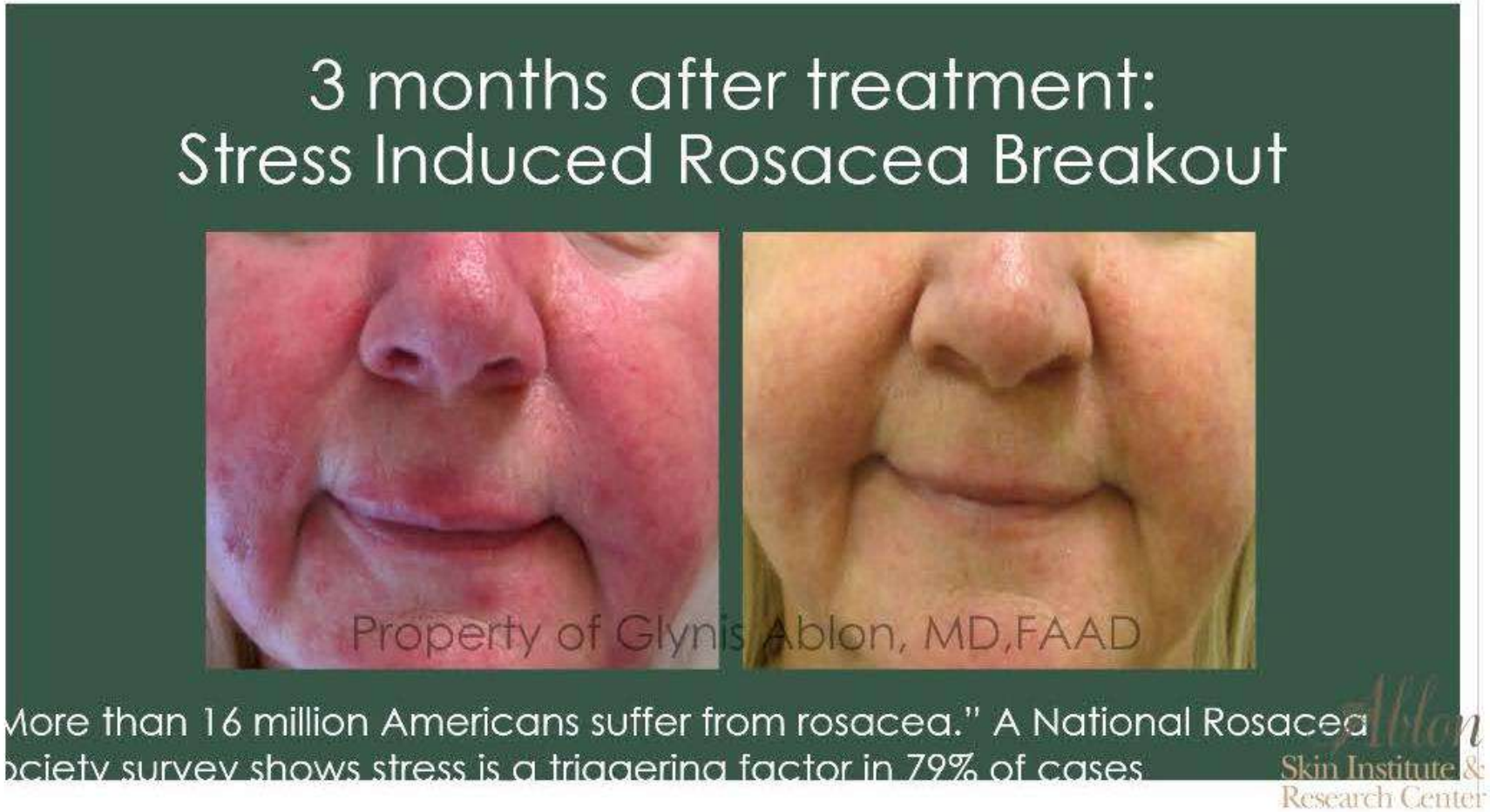
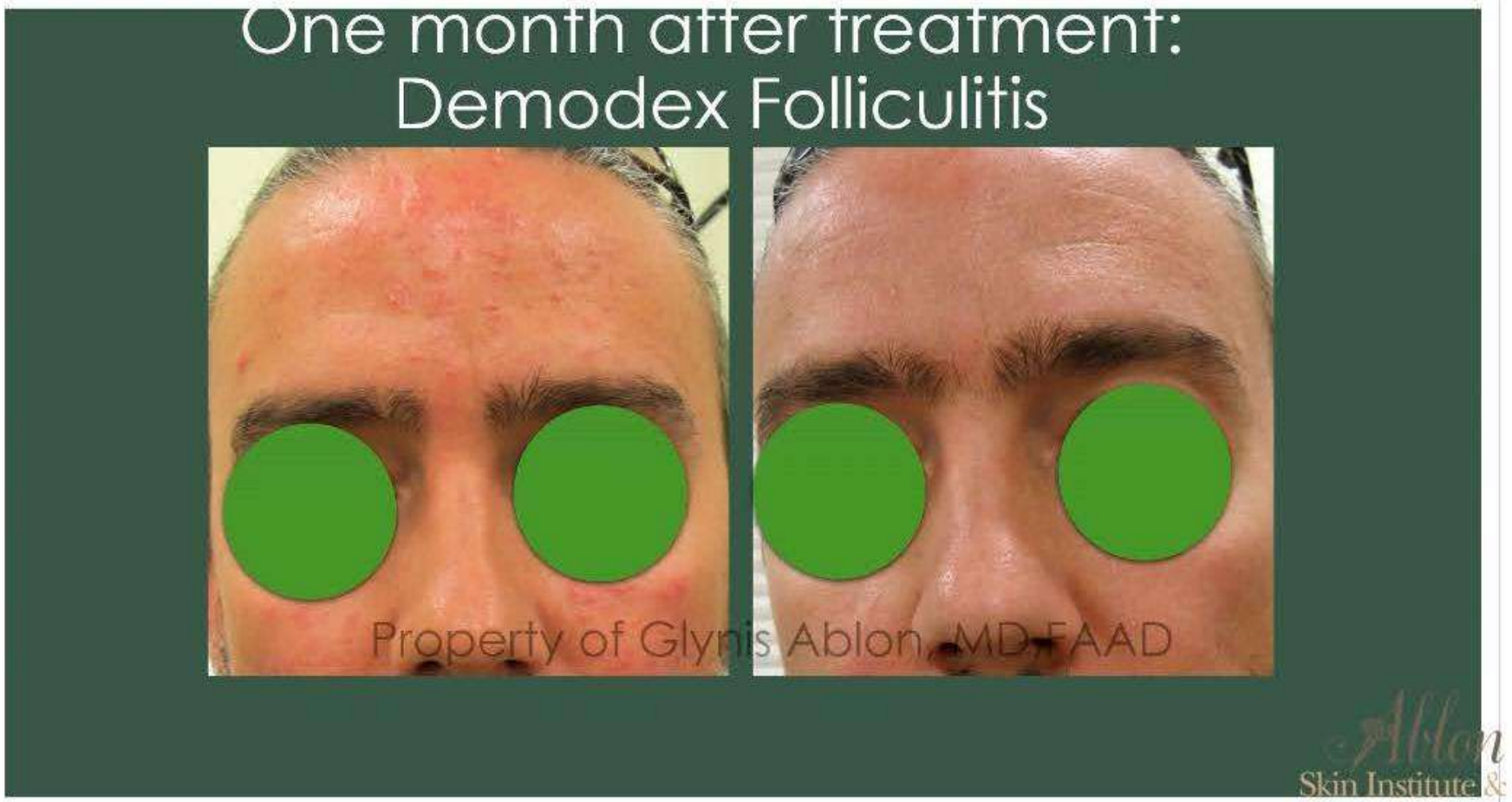

Treatment Results
Fitz II
Baseline, Severe
6 Months After 3rd Treatment, Mild
Fitz III
Baseline, Moderate
6 Months After 3rd Treatment, Clear
Fitz IV
Baseline, Moderate
6 Months After 3rd Treatment, Almost Clear
Fitz V
Baseline, Moderate
6 Months After 3rd Treatment, Almost Clear
Fitz VI
Baseline, Severe
6 Months After 3rd Treatment, Moderate
Ablon Skin Institute & Research Center

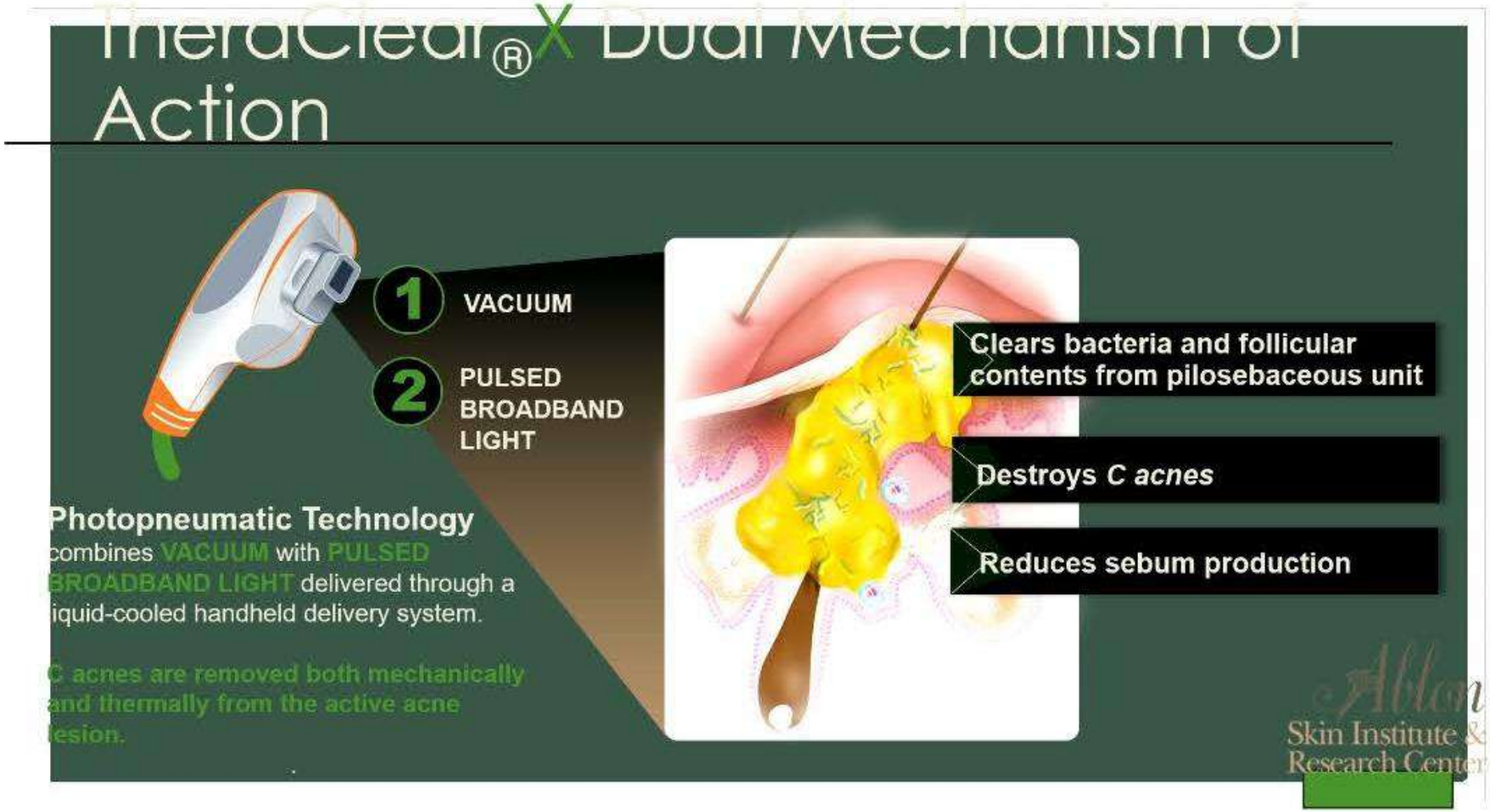

Patient Photos
Baseline
6 Months After Final Treatment Session
12 Months After Final Treatment Session
Ablon Skin Institute & Research Center


Patient Photos
Baseline, Moderate
6 Months After Final Treatment Session
12 Months After Final Treatment Session
Skin Institute & Research Center

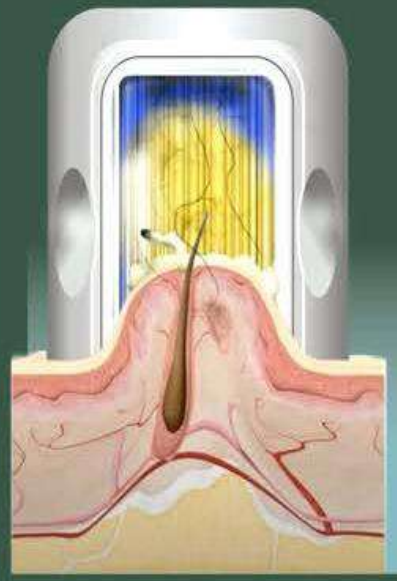

DEVICES II. LIGHT EMITTING DIODES
Ablon Skin Institute & Research Center


3 months after treatment:
Stress Induced Rosacea Breakout
Property of Glynis Ablon, MD,FAAD
More than 16 million Americans suffer from rosacea." A National Rosacea
ociety survey shows stress is a triggering factor in 79% of cases
Ablon
Skin Institute &
Research Center


One month after treatment:
Demodex Folliculitis
Property of Glynis Ablon, MD, FAAD
Ablon Skin Institute & Research Center


TheraClear® X Dual Mechanism of Action
1 VACUUM
2 PULSED BROADBAND LIGHT
Photopneumatic Technology
combines VACUUM with PULSED BROADBAND LIGHT delivered through a liquid-cooled handheld delivery system.
C acnes are removed both mechanically and thermally from the active acne lesion.
Clears bacteria and follicular contents from pilosebaceous unit
Destroys C acnes
Reduces sebum production
Ablon Skin Institute & Research Center

Benefits of Photopneumatic Technology



Pulsed Broadband light 500nm-1200nm

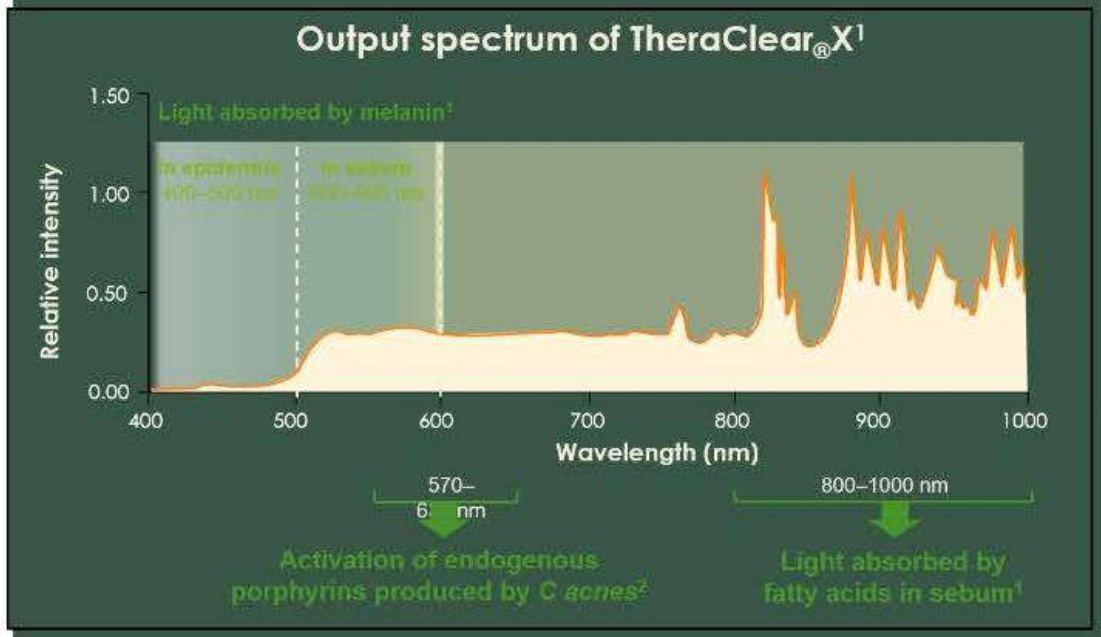
Extraction utilizes gentle pneumatic energy

Light	Vacuum

• Thermally heats the targeted dermis
• Endogenous effect of light activates porphyrins to
  • destroy *C acnes*
  • reduces sebum production
	• Safely removes occlusive material from the infundibulum of the pilosebaceous unit
	• Removes the breeding ground for *C acnes*
	• Leads directly to a reduction in acne lesions
	• Quick and comfortable treatment

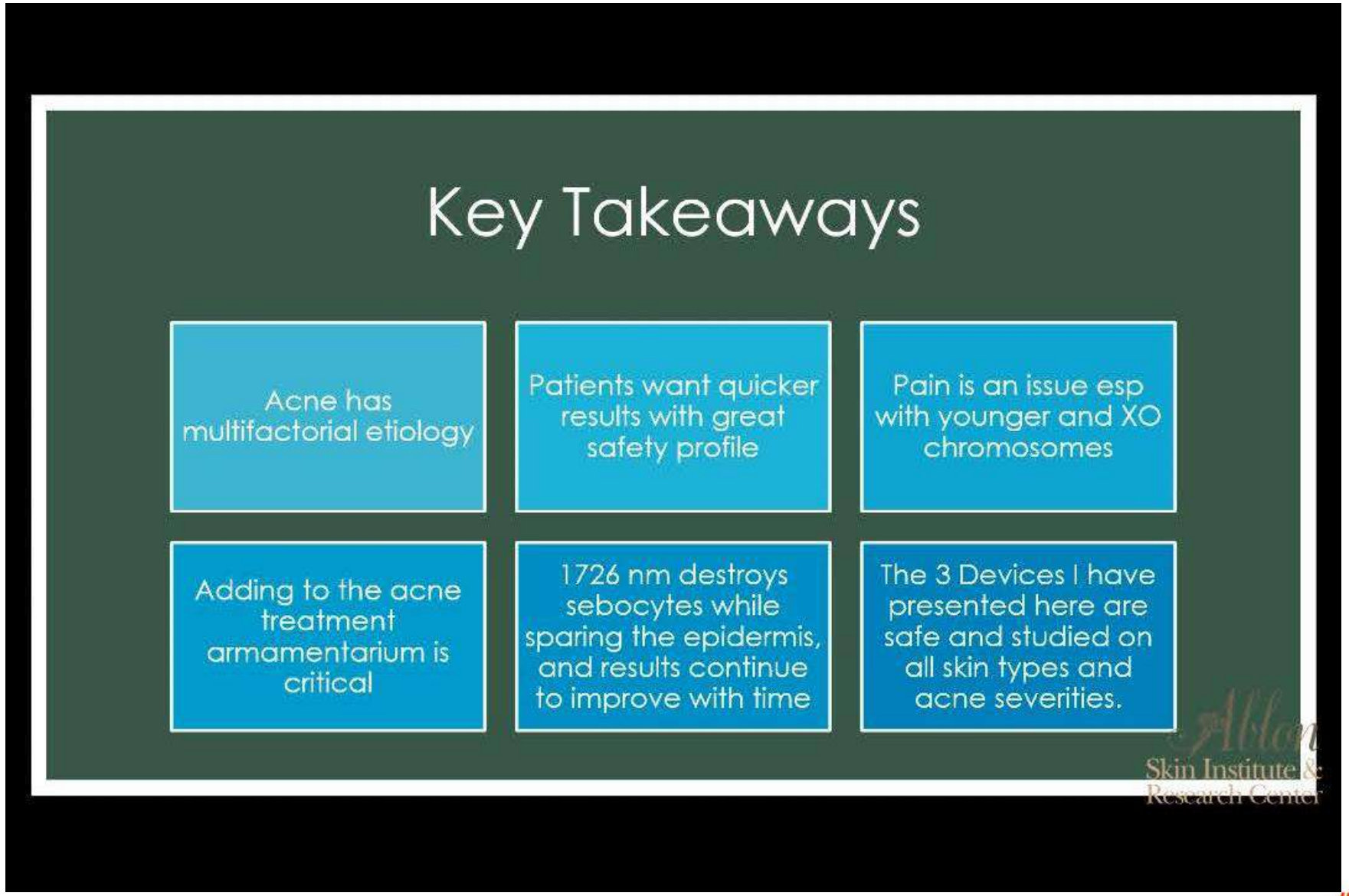
Ablon Skin Institute & Research Center

The Light Spectrum of TheraClear® X Extends From 500 nm to 1200 nm



By filtering the visible wavelengths light from the spectrum (400–500 nm), **absorption by melanin in the epidermis is minimized**, making the treatment safe for most skin types[1]

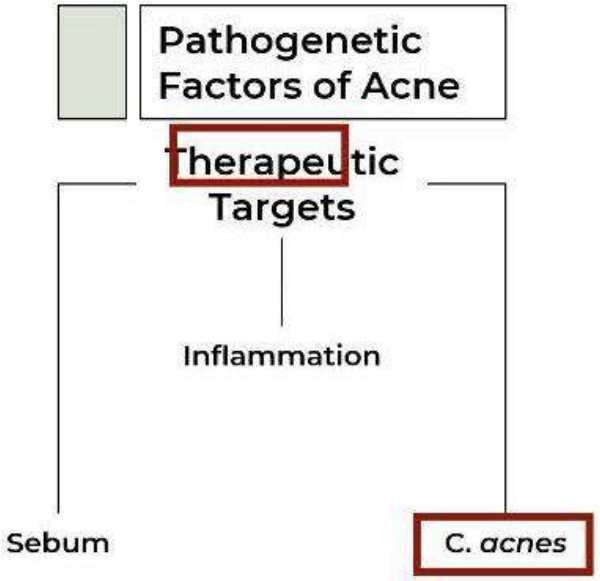
Ablon Skin Institute & Research Center


Key Takeaways
Acne has multifactorial etiology
Patients want quicker results with great safety profile
Pain is an issue esp with younger and XO chromosomes
Adding to the acne treatment armamentarium is critical
1726 nm destroys sebocytes while sparing the epidermis, and results continue to improve with time
The 3 Devices I have presented here are safe and studied on all skin types and acne severities.
Ablon Skin Institute & Research Center

Combining Lasers & Energy Devices with Medical Therapies in Acne Management

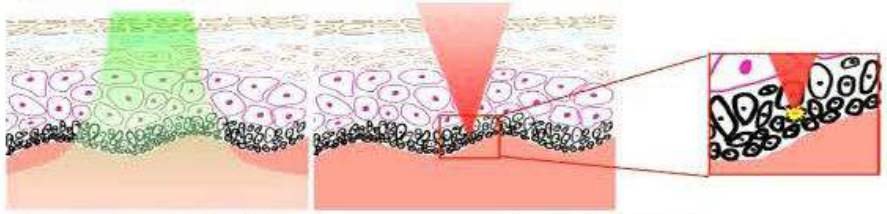
Valerie D. Callender

Lasers, Energy Devices & Acne Vulgaris



Selective Photothermolysis & Bactericidal Activity

Effectively reduces sebum production and inhibits the growth of *C acnes* while sparing the adjacent dermal and epidermal layers.



Conventional Selective Photothermolysis

Spatially Selective Photothermolysis

Source: https://dermnetnz.org/topics/lasers-lights-and-acne

[redacted]

ORIGINAL ARTICLE OPEN ACCESS

Treatment of Acne Vulgaris With a 650-ms, 1064-nm Nd:YAG Laser: A Retrospective Study

Idowu D. Olugbade[1] | Anna C. Petty[2] | Joyce Imahiyerobo-Ip[2]

ABSTRACT

Background: The 650-ms, 1064-nm Nd:YAG laser device may provide superior efficacy and tolerability for the treatment of acne vulgaris over conventional treatments.

Aim: To evaluate the efficacy and tolerability of a 650-ms laser for the treatment of mild to severe facial acne vulgaris.

Patients/Methods: Records of 225 subjects with mild to severe facial acne vulgaris and treated with a 650-ms laser were reviewed.

Results: Subjects required a median of 3 treatments to achieve clearance. Clearance was achieved in 108/225 (48%) subjects. Adverse effects were limited to acne flare-ups and dryness. Treatment with isotretinoin was not required in 180/209 (80%) of subjects. A variety of topical and oral medications and non-laser procedures may be used in conjunction with the 650-ms laser without adverse effects. At the 6-month follow-up visit, the median Investigator Global Scale (IGA) score was 1.0 (almost clear). For most IGA-rated parameters differences between white patients and patients with skin of color were not statistically significant.

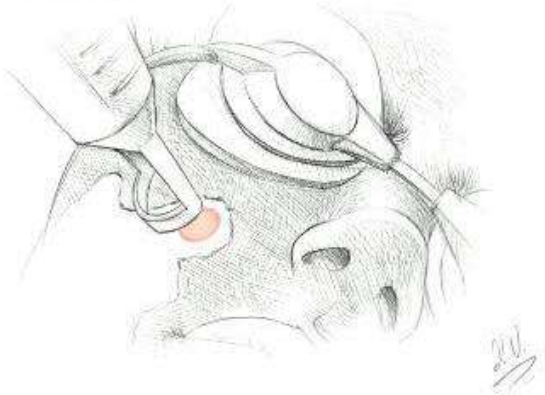
Conclusion: The 650-ms, 1064-nm Nd:YAG laser provides a safe and efficacious treatment of mild to severe acne in patients with white skin and skin of color.

J Cosmetic Derm 2024;24:e 16711

[redacted]

Oral Isotretinoin & Lasers: A Meta-Analysis

Myth or Fact: Oral Isotretinoin should not be combined with laser treatments. Initiate laser about 6 months after stopping oral isotretinoin.



6 Articles Included

285 Patients assessed for
- Clinical Improvement
- Lesion Reduction
- Adverse Events
- Intra and post operative discomfort rates

Isotretinoin Alone vs Isotretinoin & Laser

Laser Types

Non-ablative fractional laser, pulse dye laser, intense pulsed light, energy-based interventions, and delicate pulsed light.

Combination Therapy

Isotretinoin combined with laser/light therapy **outperformed** in clinical improvement rates and significantly reduced acne vulgaris. No difference in adverse events compared to isotretinoin alone.

He SX, et al. Isotretinoin Combined Laser/Light-Based Treatments Versus Isotretinoin Alone for the Treatment of Acne Vulgaris: A Meta-Analysis. *J Cosmet Dermatol.* 2025;24(1):e16639.
Image Source: https://www.drkelly.ch/en/skin/carbon-laser-peeling/

Oral Isotretinoin, Lasers, & Energy Devices – Summary of Studies

1 — Xia (2018)
- RCT

Device
- 1550 nm erbium-doped fiber laser
- 20mJ/cm²

Oral Dose
- 10mg/d

Timing (Device)
- q4wks
- 8 wks total

2 — Gao (2020)
- Retro

Device
- 1565 nm nonablative fractional laser
- 40-45mJ

Oral Dose
- 1mg/kg/d 2-4 weeks and 0.5mg kg/d (12-14 weeks)

Timing (Device)
- q6wks
- 12 wks total

3 — Ibrahim (2020)
- RCT

Device
- Pulse Dye Laser
- 4.5-5.5J/cm²

Oral Dose
- 0.25mg/kg/day

Timing (Device)
- q2wks
- 8 wks total

4 — Li (2020)
- RCT

Device
- Intense pulsed light with a 420nm cutoff
- 10- 15J/cm²
- q4weeks

Oral Dose
- 0.5 - 0.75mg/kg/day

Timing (Device)
- q2wks
- 4 wks total

5 — Kim (2022)
- Retro

Device
- Fractional Microneedle RF
- Pulse Dye Laser
- Fractional Laser

Oral Dose
- 10-20mg/day

Timing (Device)
- Variable

6 — Li (2022)
- RCT

Device
- Delicate pulsed light
- Titrated up from 6J cm2 to 0.2-0.4J/cm²
- q8weeks

Oral Dose
- 10-20mg/day

Timing (Device)
- q2wks
- 8 wks total

Oral Isotretinoin timing intervals varied per study

He SX, et al. Isotretinoin Combined Laser/Light-Based Treatments Versus Isotretinoin Alone for the Treatment of Acne Vulgaris: A Meta-Analysis. *J Cosmet Dermatol*. 2025;24(1):e16639.

Results Summary

- Combination Therapy is clinically superior than isotretinoin alone
- 3 Trials - Quantitative Improvement
- 4 Trials- Mean Reduction in Total Lesions
- 3 Trials – NAFL + Isotretinoin
  - 1550nm NAFL with low dose isotretinoin (10 mg/d)
  - 1565 nm NAFL with conventional-dose isotretinoin (1 mg/kg/d)
  - 1064 nm NAFL combined with low-dose isotretinoin (0.2 – 0.3 mg/kg/day)
  - ALL effective in reducing inflammatory acne lesions and/or atrophic scarring
- No significant difference in adverse event incidence (dryness, cheilitis, and hyperpigmentation)

Isotretinoin and Lasers

Meta-Analysis

Considerations for FST Inclusion of Studies

Study	Design	Group	Skin Type
Xia (2018)	RCT	Isotretinoin + NAFL vs Isotretinoin	II-IV
Gao (2020)	Retrospective	Isotretinoin + NAFL vs Isotretinoin	III – IV
Ibrahim (2020)	RCT	Isotretinoin + PDL vs Isotretinoin	---
Li (2020)	RCT	Isotretinoin + IPL vs Isotretinoin	III - IV
Kim (2022)	Retrospective	Isotretinoin + EBD vs Isotretinoin	II – IV
Li (2022)	RCT	Isotretinoin + DPL vs Isotretinoin	II - IV
NAFL (Non-ablative fractional laser), PDL (Pulse Dye Laser), IPL (Intense Pulse Light), EBD (Energy Based Device), DPL (			

He SX, et al. Isotretinoin Combined Laser/Light-Based Treatments Versus Isotretinoin Alone for the Treatment of Acne Vulgaris: A Meta-Analysis. *J Cosmet Dermatol*. 2025;24(1):e16639.

Debunking the Myth: Oral Isotretinoin CAN be combined with other procedural therapies

Combination of 5-Aminolevulinic acid photodynamic therapy and isotretinoin to treat moderate-to-severe acne

Lin Liu [1], Peng Liu [2], Guo Wei [1], Liya Meng [1], Chunmin Zhang [3], Chunhong Zhang [4]

Fire needle pretreatment with 5-aminolevulinic acid photodynamic therapy combined with low-dose isotretinoin in the treatment of severe refractory nodulocystic acne

Lingyun Du [1], Zhiqiang Cao [2], Jingjing Wei [1], Mingming Li [1], Changyu Han [1], Chunhong Zhang [3]

Treatment of acne vulgaris using 1,565 nm non-ablative fractional laser in combination with isotretinoin and pricking blood therapy

Lin Gao [1], Li Wang [1], Kai Li [1], Qiang Tan [1], Erle Dang [1], Meiheng Lu [1], Yan Li [1], Wenbin Tan [2], Gang Wang [1]

Summary of Results

N = 67 patients
PDT combined with isotretinoin has higher effect rate and lower recurrence rate than single PDT for moderate to severe acne.

N = 10 patients
Fire needle pretreatment ALA-PDT combined with lose-dose isotretinoin is effective and safe in treatment of severe, refractory nodular cystic acne.

N = 60 patients
Triple therapy (1,565 nm non-ablative fractional laser, isotretinoin, and pricking blood therapy) showed highest improvement rate of inflammatory papules and boxcar atrophic scars.

Liu L, Liu P, Wei C, Meng L, Zhang C, Zhang C. 2022 Dec;40:103097.
Du L, Cao Z, Wei J, Li M, Han C, Zhang C. *Photodiagnosis Photodyn Ther.* 2024;47:104215.
Gao L, Wang L, Li K, et al. *J Dermatolog Treat.* 2022;33(2):749-755.

Combining Lasers for Acne Vulgaris

Combination Therapy: Long-pulsed (LP) & Q-Switched (QS) YAG Lasers		
Patients	N = 20, Moderate to Severe Inflammatory Acne	Randomized
Intervention	Long-pulsed (LP) Nd:YAG 1,064-nm	Q-switched (QS) Nd:YAG 1,064-nm
Target	Active Acne	
Timing	At least 8 treatments	Follow up in 12 months
Theory	Long-pulsed Nd:YAG laser is generally considered more effective for treating active inflammatory acne lesions due to its longer pulse duration. Q-switched Nd:YAG laser is better suited for treating post-acne scarring by stimulating collagen production in the deeper layers of the skin.	

Patient Characteristics

N = 20, Age 17 – 47

Moderate to Severe Inflammatory Acne

FST I to IV

Failed Topical and/or Oral Treatments

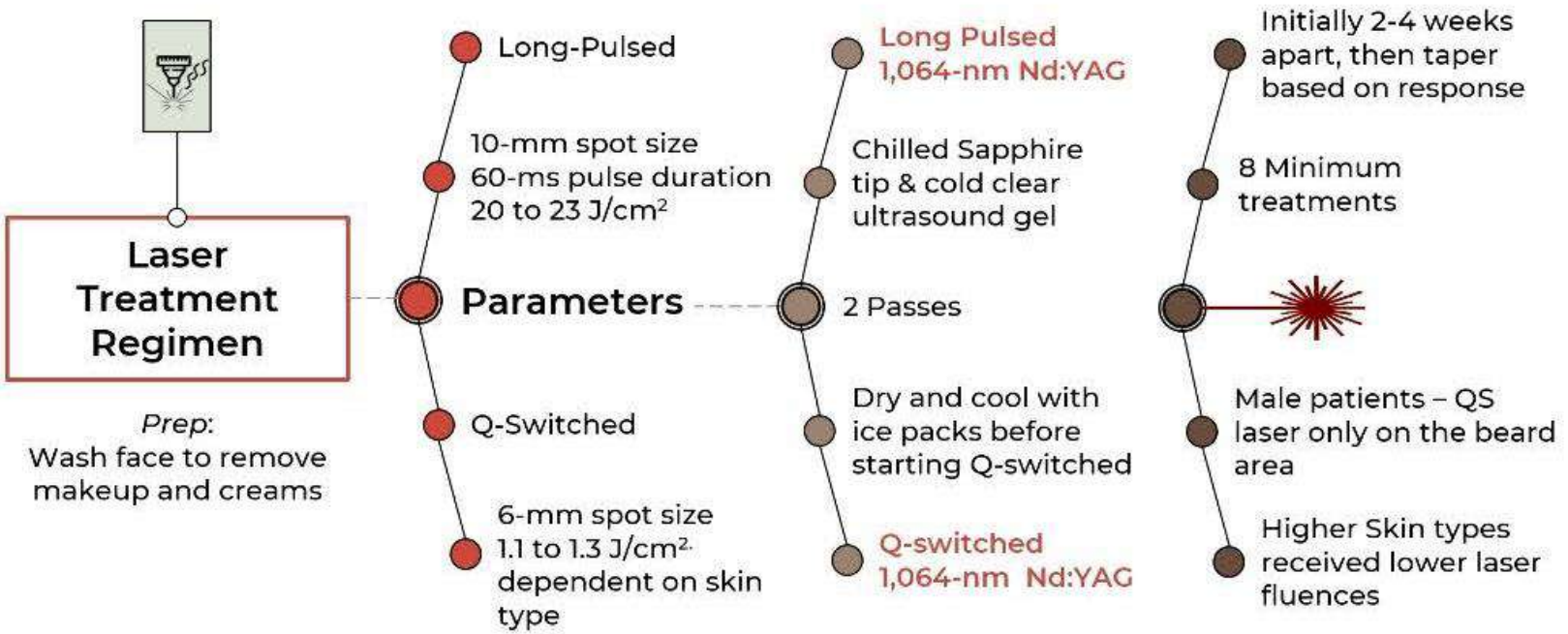
Exclude: Pregnant, on PO antibiotics, on photosensitizing drugs, or oral isotretinoin within 6 months.

Topical Regimen

All forms of topical acne treatments and oral antibiotics discontinued 2 weeks before the first treatment and throughout the entire course of therapy and follow up evaluations.

Bakus AD, et al. Sustained Benefit After Treatment of Acne Vulgaris Using Only a Novel Combination of Long-Pulsed and Q-Switched 1064-nm Nd: YAG Lasers. *Dermatol Surg.* 2018;44(11):1402-1410.

Combining Lasers for Acne Vulgaris



Bakus AD, et al. Sustained Benefit After Treatment of Acne Vulgaris Using Only a Novel Combination of Long-Pulsed and Q-Switched 1064-nm Nd: YAG Lasers. *Dermatol Surg*. 2018;44(11):1402-1410.

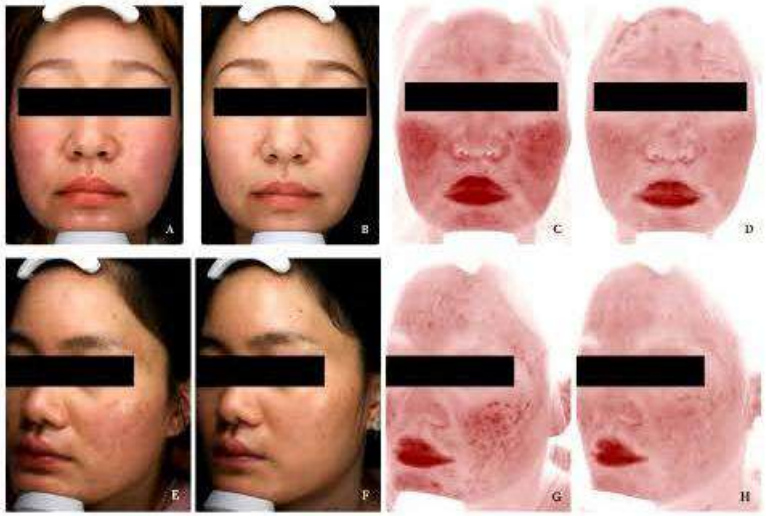
Effect of Intense Pulsed Light Combined With 3% Tranexamic Acid for Facial Erythema Associated With Acne Vulgaris and Rosacea

Xueping Liu[1,2] | Xiaoyi Qi[2] | Yufeng He[2] | Linmei Xiang[2] | Aoxue Wang[3]

[1]Dalian Medical University, Dalian, Liaoning, China | [2]Department of Dermatology, The Affiliated Hospital of Southwest Medical University, Luzhou, Sichuan, China | [3]Department of Dermatology, The Second Hospital of Dalian Medical University, Dalian, Liaoning, China

Correspondence: Aoxue Wang (wangaxdl@163.com)

Received: 11 April 2025 | **Revised:** 25 April 2025 | **Accepted:** 13 May 2025



Clinical Trials on the Horizon

ClinicalTrials.gov

NCT06378983 Recruiting
Clinical Trial of Microneedle Radiofrequency Combined With Oral Isotretinoin in Moderate to Severe **Acne**
Conditions
Moderate to Severe Acne Vulgaris
Locations
Guangzhou, China

NCT05362929 Recruiting
Efficacy and Tolerability of a Hybrid Fractional Laser for the Treatment of **Acne** Scars in Patients With Skin of Color
Conditions
Acne Scars - Mixed Atrophic and Hypertrophic Hyperpigmentation Laser-Induced Hyperpigmentation
Locations
Elmsford, New York, United States

NCT06281782 Recruiting
Platelet-rich Plasma With Topical Retinoids Versus Topical Retinoids Alone in **Acne Vulgaris**
Conditions
Acne Vulgaris
Locations
Assiut, Egypt

NCT06725303 Not yet recruiting New
Excimer Light Versus Blue Light in **Acne**
Conditions
Acne Vulgaris
Locations
Location not provided

NCT06311890 Recruiting
Study to Evaluate the Efficacy, Safety and Tolerability of Photodynamic Therapy(PDT) With Chlorin-e6 in Treating Moderate to Severe **Acne**
Conditions
Acne Photodynamic Therapy
Locations
Beijing, China

NCT06376110 Recruiting
Single-Blind Study Assessing the Use of a Topical Antioxidant With A Series of Laser Procedures to Reduce Sebum Production
Conditions
Acne
Locations
Pflugerville, Texas, United States

Combination Laser Approach – Discussion

Effective

Significant reduction in acne lesions immediately after treatment.

At least 60% of patients received 90% or greater lesional reduction.

Tolerability

Only transient erythema, minimal pain, and no complications.

Skin of Color

No hyperpigmentation occurred, even in patients Type VI.

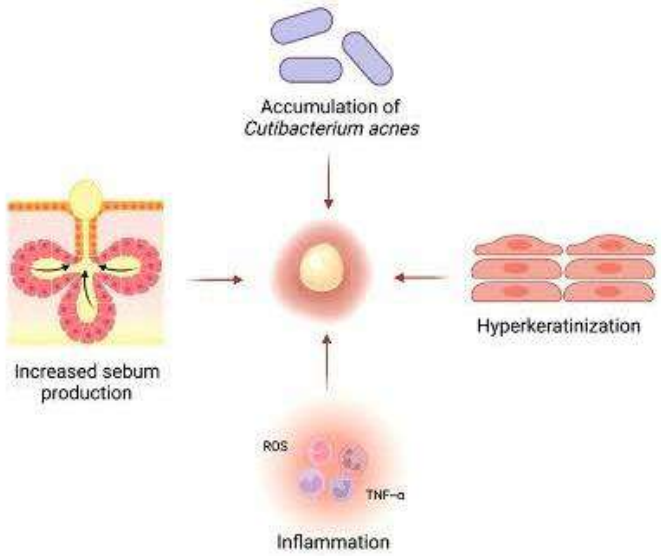


Image from Peyravian N, Deo S, Daunert S, Jimenez JJ. J Inflamm Res. 2022;15:2795-2801.

Sustained Remission

Average follow-up after last laser treatment was 2 years, with 86% lesion reduction and 84% improvement in overall appearance of skin.

Theory

1,064-nm laser can decrease inflammatory cytokines.

Histologically shown to decrease inflammation and expression of TLR-2, IL-8, NF-kB, TNF-am and MMP-9 when treating acne lesions.

Bokus AD, et al. Sustained Benefit After Treatment of Acne Vulgaris Using Only a Novel Combination of Long-Pulsed and Q-Switched 1064-nm Nd:YAG Lasers. *Dermatol Surg*. 2018;44(11):1402-1410.

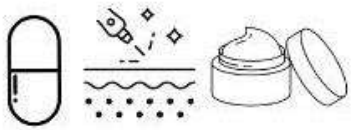
Key Takeaways

Lasers & Energy for Acne

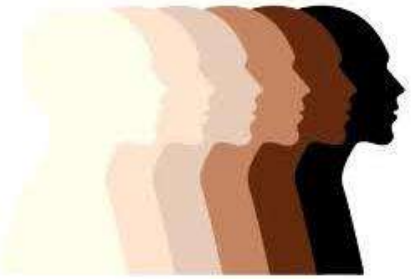
Selective photothermolysis reduces sebum production and inhibits *C. acnes*, while sparing adjacent epidermal and dermal layers.

Combination Therapy is Effective

Oral isotretinoin may be used concurrently with other regimens.



Lasers can also be combined with other lasers and energy, with caution to skin phototype.



Skin of Color

Appropriate laser and energy device selection is paramount to reduce the chance of adverse effects.

Diversity in clinical trials will allow for more robust investigation on efficacy, safety, and appropriateness of lasers and energy devices for the treatment of acne vulgaris.

1,726-nm

1,064-nm Nd:YAG

Alexiades M, Kothare A, Goldberg D, Dover JS. *J Am Acad Dermatol*. 2023;89(4):703-710.

Energy Devices & Laser for Treatment of Acne Scarring

Girish S. Munavalli

Everything but the Kitchen Sink

Ablative Fractional

Subcission

RF-Microneedling

Non-Ablative Fractional

Permanent Fillers

PRP/Exosomes

Biostimulatory/HA Fillers

TCA Cross

Microneedling

Punch Excision / Grafting

Acne Scarring: Complex, multi-modal treatment required due to diversity of morphology and severity

Primary Components of Acne Scars Addressable by Energy-Based Devices

- Dermal Remodeling (Forms new collagen & elastin)
- Redness Reduction (Minimizes vascularity)
- Active Acne Control (Prevents additional scarring)

Devices to Treat Across the Acne Scar Spectrum

Device	Action
Picosecond Fractional Lasers	Build Collagen & Elastin
Pulsed Dye Lasers (PDL)	Reduce Redness
Non-Ablative Fractional Lasers (NAFL)	Build Collagen & Elastin
Sublative RF	Ablate Skin
RF Microneedling	Deep Dermal Heating, Remodel Skin
PDL and IPL	Address Active Acne
1726 nm Laser	Address Active Acne

highlights
Denver, Colorado

AAD ANNUAL MEETING 2026

27 — 31
Marzo

ePosters - Acne

Una iniciativa de:

ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

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ACADEMIA ESPAÑOLA DE DERMATOLOGÍA Y VENEREOLOGÍA

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Con el patrocinio de:

ucb

1

A CANADIAN PERSPECTIVE ON THE ROLE OF DERMOCOSMETICS IN ACNE MANAGEMENT: CLINICAL CONSIDERATIONS FOR HEALTHCARE PROFESSIONALS

Jerry Tan MD, FRCPC[1], Brigitte Dreno MD[2], Malika Ladha MD FRCPC FAAD[3], Maxwell Sauder MD FRCPC[4], Marcie Ulmer MD FRCPC DABD[5], Monica Li MD FRCPC FAAD[6], Catherine Zip MD FRCPC[7], Jaggi Rao MD FRCPC[8], Mimi Tran MD FRCPC MBA[9], Sonya Abdulla MD FRCPC FAAD[10], Jennifer Lipson MD FRCPC[11]

1. Western University, London, Ontario, Canada; Windsor Clinical Research Inc., Windsor, Ontario, Canada.
2. Dermatology Department, CHU Nantes, CIC 1413, CRCINA, University Nantes, Nantes, France.
3. University of Calgary, Cumming School of Medicine, University of Calgary, Canada.
4. Princess Margaret Cancer Centre, Toronto, ON, Canada; Department of Medicine, University of Toronto, Toronto, ON, Canada.
5. Pacific Derm, Vancouver, British Columbia, Canada; Department of Dermatology & Skin Science, University of British Columbia, Vancouver, British Columbia, Canada.
6. Department of Dermatology and Skin Science, University of British Columbia, Vancouver, BC, Canada.
7. University of Calgary, Calgary, Alberta, Canada.
8. Division of Dermatology, Department of Medicine, University of Alberta, Edmonton, Alberta, Canada.
9. Department of Dermatology and Skin Science, University of British Columbia, Vancouver, BC, Canada
10. Division of Dermatology, University of Toronto, Toronto, ON, Canada.
11. Division of Dermatology, University of Ottawa, Ottawa, ON, Canada.

INTRODUCTION

- Acne is a highly prevalent dermatological condition significantly impacting Canadians.
- While traditionally managed by dermatologists and general practitioners, timely access to care is challenging, underscoring the need for broader healthcare professional (HCP) involvement, including pharmacists and nurses.
- Previous guidelines, while useful, did not extensively elaborate on the integral role of dermocosmetics in acne management skincare routines.
- This paper aims to develop comprehensive consensus recommendations for Canadian HCPs on the appropriate use of dermocosmetics in managing acne, both as monotherapy and as adjunctive therapy.

METHODS

- An expert panel, comprising Canadian and international dermatologists, was convened to synthesize current literature and adapt international consensus recommendations to the Canadian context.
- A rigorous literature search was conducted on PubMed, limited to randomized controlled trials (RCTs) published between 2014 and January 2025.
- Studies were categorized into monotherapy and adjunctive therapy for acne. Expert discussions addressed Canadian gaps and needs and integrated these findings with Canadian clinical considerations.

1. Thiboutot, Diane, et al. "International expert consensus recommendations for the use ofdermocosmeticsin acne." *Journal of the European Academy of Dermatology and Venereology*(2024):1-15

FUNDING:

La Roche-Posay Laboratoire Dermatologique, L'Oréal Canada

ACKNOWLEDGEMENTS:

Julie Mineault, Natalie Cunningham, Ian Landells, Delphine Kerob, Nour R. Dayeh, Carlee M. MacInnis

RESULTS

- The literature search yielded 35 RCTs published between 2014 and January 2025, which were rigorously reviewed by the expert panel. These studies provided the evidence base for dermocosmetics across various applications in acne management with the key findings summarized below

Table 1: Canadian-recommendations and statements on the use of dermocosmetics as **monotherapy** for mild acne; *adapted from the international consensus.*[1]

Monotherapy: Based on low to moderate quality of evidence and clinical experience
Recommendation 1: Dermocosmetics with acne-targeting ingredients can improve global acne severity.
Recommendation 2: Dermocosmetics with acne-targeting ingredients can reduce the number of acne lesions.
Recommendation 3: Dermocosmetics containing ingredients aimed at reducing excess oil can be considered.
Monotherapy: Based on low quality of evidence and clinical experience
Recommendation 4: Dermocosmetics with acne-targeting ingredients with good tolerability can be recommended. These may improve adherence to prescription treatment.
Recommendation 5: Dermocosmetics with acne-targeting ingredients can minimize appearance of new acne after use of prescription therapy.

Table 2: Canadian-recommendations and statements on the use of dermocosmetics as **adjunctive therapy** for mild acne; *adapted from the international consensus*[1]

Adjunctive Therapy: Based on low to moderate quality of evidence and clinical experience
Recommendation 1: Dermocosmetics should be recommended with topical or systemic acne therapy with the potential for irritation.
Recommendation 2: Dermocosmetics can improve treatment adherence with prescription acne therapy, particularly oral or topical retinoids.
Adjunctive Therapy: Based on low quality of evidence and clinical experience
Recommendation 3: Dermocosmetics with active ingredients can improve skin barrier function including skin hydration
Recommendation 4: Dermocosmetics with moisturizing ingredients during acne therapy can improve clinical outcomes
Acne-Induced Hyperpigmentation
Recommendation 5: Dermocosmetics with active ingredients can help prevent and treat acne-induced hyperpigmentation in combination with daily sun protection

The panelists emphasized that integrating dermocosmetics into acne management in Canada requires specific considerations, driven by the unique Canadian healthcare context, involvement of different HCPs in acne management, diversity of phototypes and environmental factors.

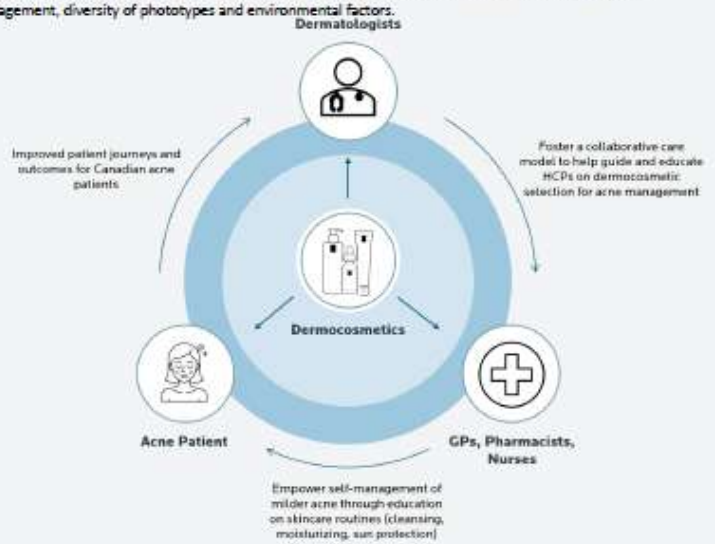

Figure 1: Dermocosmetics in a Collaborative Care Model for Acne Management

CONCLUSION

- **The integration of dermocosmetics is an important adjunctive strategy for optimizing patient outcomes and adherence in acne management.**
- **This paper offers valuable, Canadian-specific clinical considerations for HCPs, providing a practical framework to effectively incorporate dermocosmetics into their clinical practice and improve patient journeys and outcomes in acne management across Canada**

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2

CLINICAL CHARACTERISTICS OF JAK INHIBITOR–ASSOCIATED ACNE: A RETROSPECTIVE REVIEW

LARA SHQAIR, BA[1]; ALEXANDRA NIGRO, MS[1]; ISABEL C. SILVA, BS[1]; SAAKSHI KHATTRI, MD[1]

[1] Icahn School of Medicine at Mount Sinai, Department of Dermatology, New York City, NY, USA.

Introduction

- Janus kinase (JAK) inhibitors are increasingly prescribed for inflammatory and autoimmune diseases, including atopic dermatitis (AD), alopecia areata (AA), psoriasis/psoriatic arthritis (PsO/PsA), and inflammatory bowel disease (IBD)
- Their use has expanded nearly fourfold in recent years, driven by their efficacy and rapid onset of action.
- Acne is one of the most frequently reported adverse events, with incidence varying across different agents, highest with abrocitinib, followed by baricitinib, upadacitinib, ritlecitinib, and tofacitinib
- The purpose of this study is to characterize a cohort of patients who experienced acne and were on a JAK inhibitor to assess time to onset, treatment, and response.

Methods

- We performed a retrospective chart review of patients who had a diagnosis of acne and screened to include patients who were prescribed an oral JAK inhibitor (tofacitinib, baricitinib, upadacitinib, abrocitinib, or ritlecitinib)
- Statistics were performed and summarized as n (%), mean ± standard deviation (SD), or median (interquartile range; IQR).

Results

TABLE 1. BASELINE DEMOGRAPHIC AND CLINICAL CHARACTERISTICS (N=57)

Characteristic	
Age, years	Mean 34.2 ± 13.2; median 31
BMI	Mean 25.6 ± 5.5; median 24.2
Sex	Female (40) (70%); Male (17) (30%)
Race/Ethnicity (n) (%)	White (30) (53%); Black/AA (8) (14%); Asian (4) (7%); AI/AN (1) (2%); Other/Unknown (14) (25%)
JAK-Inhibitor (n)(%)	Upadacitinib (41) (72%); Tofacitinib (8) (14%); Baricitinib (4) (7%); Abrocitinib (3) (5%); Ritlecitinib (1) (2%)

FIGURE 1. ANATOMIC DISTRIBUTION OF ACNE INVOLVEMENT DOCUMENTED ON EXAM AMONG PATIENTS WITH JAK-INHIBITOR–ASSOCIATED ACNE (N=57).

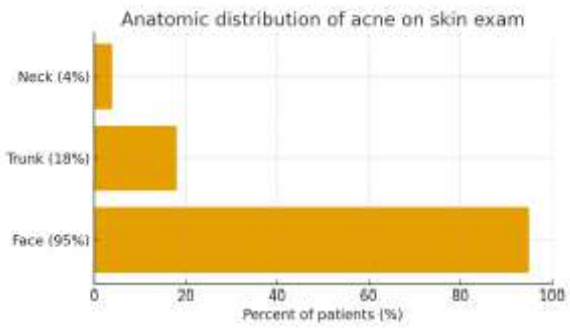
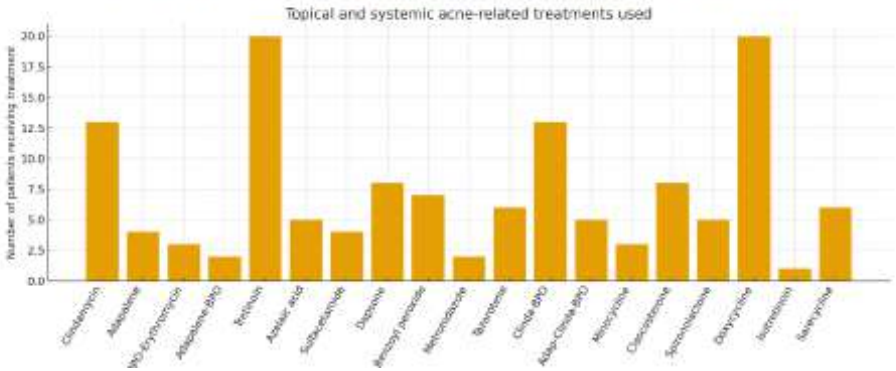


FIGURE 2. TOPICAL AND SYSTEMIC ACNE TREATMENTS PRESCRIBED TO PATIENTS WITH JAK-INHIBITOR ASSOCIATED ACNE



Results

- The cohort was predominantly female (70%) and White (53%), with a mean age of 34.2 ± 13.2 years and a mean BMI of 25.58 ± 5.50.
- The most common reasons for JAK inhibitors prescription were atopic dermatitis (56%), alopecia areata (23%), ulcerative colitis (14%), and Crohn's disease (7%).
- Upadacitinib was the most frequently implicated agent (72%), followed by tofacitinib (11%), baricitinib (7%), abrocitinib (5%), and ritlecitinib (5%)
- Median time from JAK inhibitor initiation to acne onset was 91 days (IQR 33.5-198)
- The time to onset varied by JAK inhibitor: upadacitinib demonstrated a median onset of 79.50 days (IQR 37.25–173.25), while tofacitinib had the longest median onset median 231 (IQR 18–469). Baricitinib showed a median onset of 221.5 (IQR 106–316), abrocitinib median 115 (IQR 72–123), and ritlecitinib median 193 (IQR 112–194).
- Distribution and treatments are detailed in Figures 1 and 2.

Conclusion/Discussion

- As JAK inhibitors are more frequently prescribed it is important to continue to characterize their side effects, especially when they can have an impact on quality of life such as in the case of acne
- Given the time to onset of acne, counseling on and early management of this side effect can improve patient satisfaction and limit treatment discontinuation

Results

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Characteristic	
Age, years	Mean 34.2 ± 13.2; median 31
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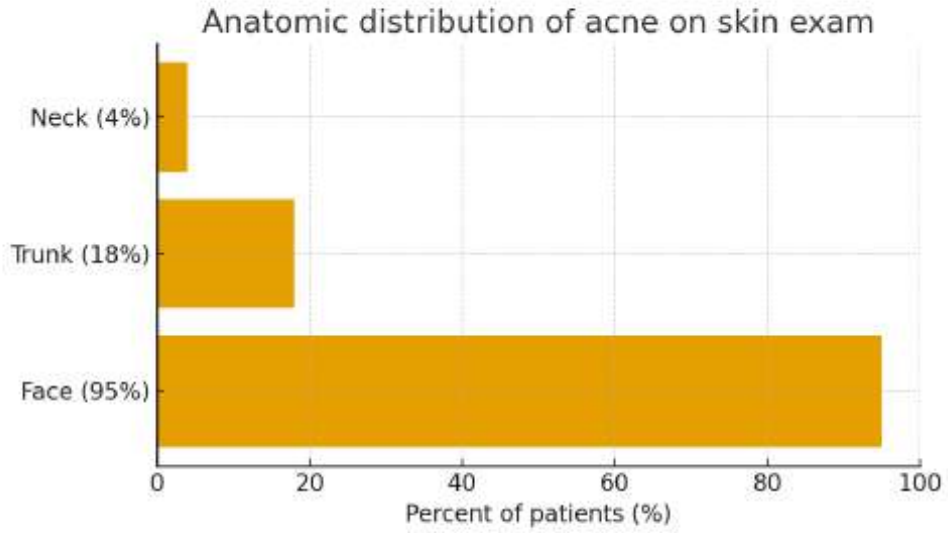
Race/Ethnicity (*n*) (%)	White (30) (53%); Black/AA (8) (14%); Asian (4) (7%); AI/AN (1) (2%); Other/Unknown (14) (25%)
JAK-Inhibitor (*n*)(%)	Upadacitinib (41) (72%); Tofacitinib (6) (11%); Baricitinib (4) (7%); Abrocitinib (3) (5%); Ritlecitinib (3) (6%)

FIGURE 1. ANATOMIC DISTRIBUTION OF ACNE INVOLVEMENT DOCUMENTED ON EXAM AMONG PATIENTS WITH JAK-INHIBITOR–ASSOCIATED ACNE (N=57).



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3

Oral Isotretinoin Combined with Antihistaminics for the Treatment of Acne Vulgaris: A Systematic Review, Meta-Analysis and trial sequential analysis with GRADE assessment of Randomized Controlled Trials

Camila Sanchez Cruz, Salma Alejandra Beltran Covarrubias, Alejandro Chen Liang, Montserrat Villa Sanchez, Yeison Cruz Castillo, España De la Rosa Valdez, Frances Marie Mejia, Robin Picavia, Ernesto Calderón-Martinez

Universidad Nacional Autónoma de México, located in Ciudad de México, Mexico; Universidad de Guadalajara in Guadalajara, Mexico; Centro de Estudios Universitarios Xochicalco, Campus Tijuana, in Tijuana, Mexico; another affiliation with Centro de Estudios Universitarios Xochicalco, Campus Tijuana, also in Tijuana, Mexico; Universidad Autónoma de Santo Domingo in Santo Domingo, Dominican Republic; Universidad Autónoma de Nuevo León, Faculty of Medicine, in Monterrey, Mexico; the Department of Internal Medicine at Yale New Haven Health, Bridgeport Hospital, in Bridgeport, Connecticut, USA; George Washington University School of Medicine and Health Sciences in Washington, D.C., USA; and the Department of Internal Medicine at The University of Texas Health Science Center at Houston, Texas, USA.

BACKGROUND

- **Acne vulgaris** is a prevalent inflammatory dermatosis with substantial psychosocial impact. Oral isotretinoin remains the most effective therapy for moderate to severe cases; however, its mucocutaneous adverse effects frequently compromise adherence. H_1-antihistamines, owing to their anti-inflammatory and sebo-suppressive properties, may enhance both efficacy and tolerability of isotretinoin.
- This systematic review and meta-analysis evaluated the efficacy and safety of combining oral isotretinoin with H_1-antihistamines in patients with acne vulgaris.

METHODS

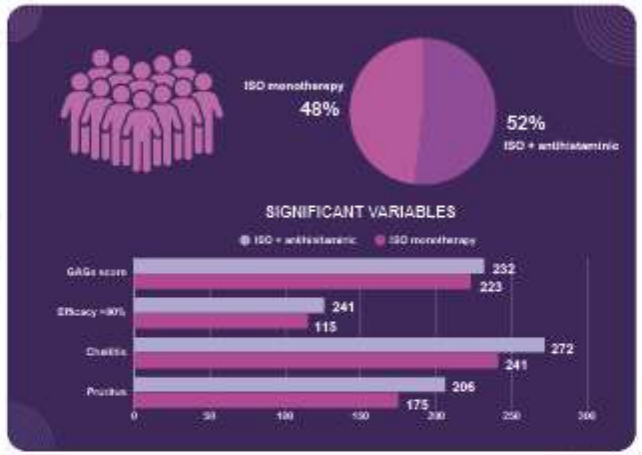
- Following PRISMA guidelines, we conducted a systematic search in PubMed/MEDLINE, Cochrane, Scopus, Web of Science, EMBASE, CINAHL and Google Scholar (Figure 1).
- Primary outcomes included changes in **Global Acne Grading System (GAGS) scores, lesion counts,** and **treatment efficacy (defined as >90% GAGS reduction).** Secondary outcomes included **mucocutaneous adverse effects** and **acne flare-ups.**
- Evidence quality and robustness were evaluated using GRADE approach and trial sequential analysis (TSA).

RESULTS

- **Eleven trials** (n = 741) met inclusion criteria.
- Combination therapy significantly reduced **GAGS scores** (MD −2.35; 95% CI: −3.01 to −1.85; I^2 = 0.0%; p < 0.01) and increased the likelihood of achieving **>90% GAGS reduction** (RR= 1.49; 95% CI: 1.19 to 1.85; I^2 = 0.0%; p < 0.01). It also reduced **pruritus** (RR = 0.33; 95% CI: 0.20 to 0.54; I^2 = 47.3%; p < 0.01) and modestly decreased the incidence of **cheilitis** (RR = 0.80; 95% CI: 0.66 to 0.97; I^2 = 76.7%; p = 0.04).
- No significant differences were observed in **inflammatory or non-inflammatory lesion counts, acne flare-ups,** or **dryness.** GRADE certainty was moderate for **GAGS score, efficacy, cheilitis,** and **pruritus,** and low to very low for other outcomes. TSA confirmed benefit only for **>90% GAGS reduction** and **pruritus;** other outcomes remained inconclusive (Figure 2).

CONCLUSION

- The addition of H_1-antihistamines to oral isotretinoin improves clinical efficacy by enhancing GAGS score reduction and overall tolerability in acne vulgaris, particularly through mitigation of pruritus and cheilitis.
- However, current evidence does not support significant improvements in lesion counts. Further high-quality standardized trials are warranted.

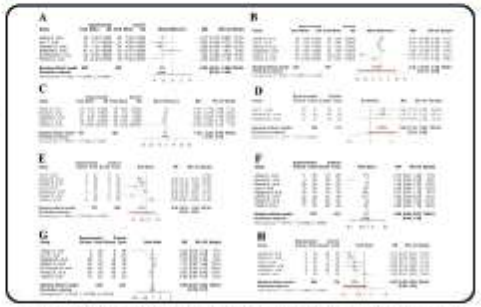


Variable studied	Studies	# of participants	Effect size MD/RR (95% CI, I2)	p-value
GAGs Score	6	455	-2.35 (95% CI: -3.01 to -1.69, 0%)	<0.01
Efficacy >90% reduction in GAGS score	3	241	1.49 (95% CI: 1.19 to 1.85, 0.0%)	<0.01
Cheilitis	8	513	0.80 (95% CI: 0.66 to 0.97, 76.7%)	0.04
Pruritus	6	381	0.33 (95% CI: 0.20 to 0.54, 47.3%)	<0.01

PRISMA FLOW DIAGRAM OF STUDY SELECTION

Figure 1.- PRISMA flowchart, a summary of the process of selecting studies included in this review.

META-ANALYSIS OUTCOMES



CONTACT INFO.

REFERENCES

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- However, current evidence does not support significant improvements in lesion counts. Further high-quality standardized trials are warranted.

4

Reduction in facial sebum production following treatment with clascoterone cream 1% for 52 weeks in patients with acne vulgaris

Zoe D Draelos[1], Sveta Weiner[2], Yasmin Mathlin[2], Nicholas Squittieri[2], Kizito Kyerematen[2]

[1]Dermatology Consulting Services, PLLC, High Point, NC, USA; [2]Sun Pharmaceutical Industries, Inc., Princeton, NJ, USA

INTRODUCTION

- The pathogenesis of acne is driven by androgen-stimulated overproduction of sebum by the sebaceous glands, which in turn provides a favorable environment for growth of *Cutibacterium acnes*, resulting in formation of acne lesions[1]
- Clascoterone cream 1% is an androgen receptor inhibitor approved for the topical treatment of acne vulgaris in patients 12 years of age and older[2]
- In vitro, clascoterone binds with high affinity to the androgen receptor in sebocytes, inhibiting downstream androgen-stimulated gene transcription and resulting in decreased production of sebum components[3]
  - The effect of clascoterone cream 1% on sebum production in patients with acne vulgaris was not measured in the pivotal Phase 3 clinical trials,[4] and the mechanism of clascoterone cream 1% for the topical treatment of acne vulgaris is not known[2]

OBJECTIVE

- The objective of this study was to investigate changes in sebum production, acne severity, and tolerability of treatment in patients with mild-to-moderate acne treated with clascoterone cream 1% for 52 weeks

METHODS

Study design and patients

- This single-site study evaluated the effect of clascoterone cream 1% on facial sebum production and acne
- Male and female patients ≥12 years old with mild-to-moderate acne vulgaris were enrolled (Table 1)

Table 1. Summary of key inclusion and exclusion criteria

Key inclusion criteria	Key exclusion criteria
• Male and nonpregnant female patients ≥12 years of age • Fitzpatrick skin type I–VI • Good physical and mental health • Mild-to-moderate acne (10–100 total noninflammatory lesions, 10–50 total inflammatory lesions, no cysts, and up to 2 nodules on the face)	• Any dermatological condition determined to interfere with the ability to evaluate the patient's skin characteristics (ie, severe acne, scars, tattoo) • Prescribed medications that might interfere with study results, and acne flare or ongoing treatment by a dermatologist at the time of enrollment

Treatments

- Participants applied clascoterone cream 1% twice daily to their entire face for 52 weeks (Figure 1)
  - Participants agreed to use only clascoterone cream 1% for acne treatment and could not introduce new colored cosmetics or skin care products during the study
- Participants were instructed to wash their face 2 to 4 hours prior to each visit and not to apply any topical facial product(s) until the completion of the visit to reduce intervisit variability and avoid confounding effects

Figure 1. Study design

Assessments and endpoints

- At each visit
  - Three casual sebumeter measurements (0–350 µg/cm²) were taken from the center of the patient's forehead
  - The investigator assessed facial characteristics (oily appearance, pore size, facial shine); performed the Investigator's Global Assessment (IGA), inflammatory lesion count (ILC) assessment, and noninflammatory lesion count (NILC) assessment; and assessed the tolerability criteria of peeling, dryness, redness, and swelling (scale: 0 = none, 1 = minimal, 2 = mild, 3 = moderate, 4 = severe)
  - Patients self-assessed stinging, itching, and burning (scale: 0 = none, 1 = minimal, 2 = mild, 3 = moderate, 4 = severe)

Statistical analyses

- As this is an exploratory study, formal justification for sample size was not included
- Changes from baseline in sebum measurements and lesion counts (ILC and NILC) were summarized using mean ± standard deviation (SD) and analyzed using paired Student's t-test, assuming normal distribution
- Ordinal or non-normally distributed data (ie, tolerability scores and IGA scores) were analyzed using the Wilcoxon signed-rank test
- P-values <0.05 were considered statistically significant; all tests were 2 sided
- Nominal P-values are shown; no adjustments for multiplicity were made
- Missing data were not imputed

RESULTS

Patient demographics

- The study enrolled 40 participants, 39 of whom completed the study; 1 patient withdrew consent for reasons unrelated to the study product
- The majority of participants were female (60%) and White (62.5%), with a mean age of 20.9 years (Table 2)
- At baseline, participants had mild (IGA score = 2; 57.5%) or moderate (IGA score = 3; 42.5%) acne and a mean sebumeter reading of 115.9 ± 50.5

Table 2. Summary of patient demographics and baseline characteristics

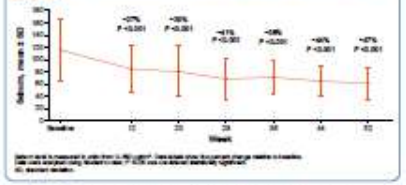
Category	N = 40
Age, years, mean (range)	20.9 (12–58)
Sex, n (%)	
Male	16 (40)
Female	24 (60)
Race/ethnicity, n (%)	
Black or African American	11 (27.5)
Hispanic	4 (10.0)
White or Caucasian	25 (62.5)
Fitzpatrick skin type, n (%)	
I	10 (25.0)
II	14 (35.0)
III	5 (12.5)
IV	4 (10.0)
V	4 (10.0)
VI	3 (7.5)
Sebumeter reading (0–350 µg/cm²), mean ± SD	115.9 ± 50.5
IGA score, n (%)	
2 (mild)	23 (57.5)
3 (moderate)	17 (42.5)
Inflammatory lesion count, mean ± SD	18.8 ± 6.3
Noninflammatory lesion count, mean ± SD	22.1 ± 10.5

IGA, Investigator's Global Assessment; SD, standard deviation

Efficacy outcomes

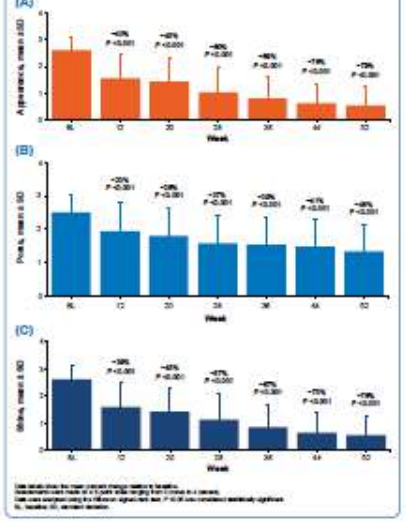
- From baseline to Week 52, the primary outcome of sebumeter measurement (mean ± SD) decreased from 115.9 ± 50.5 to 61.5 ± 26.5, respectively, an overall 47% reduction ($P < 0.001$) in casual sebum levels (Figure 2)

Figure 2. Reduction in sebum level by visit from baseline to Week 52



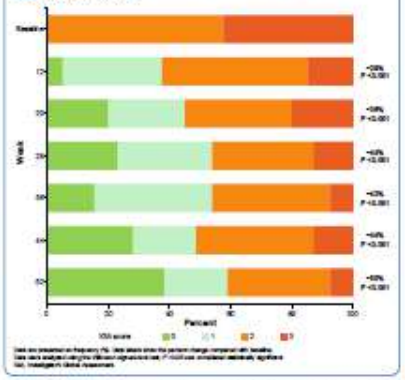
- Facial characteristics, including facial oily appearance, pore size, and facial shine, all improved significantly from baseline to Week 52 following treatment with clascoterone cream 1% (Figure 3)

Figure 3. Improvement in (A) facial oily appearance, (B) pore size, and (C) shine from baseline to Week 52



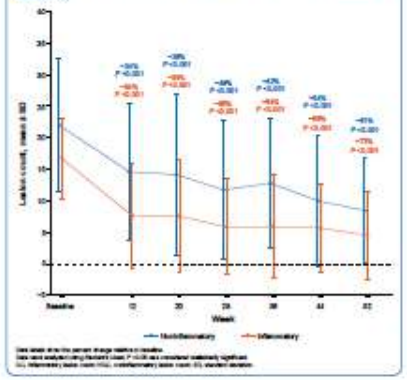
- The IGA score improved continuously from baseline to Week 52 based on both score distribution and mean percentage change from baseline (Figure 4)

Figure 4. IGA score frequency distribution by visit from baseline to Week 52



- There were significant reductions in NILC and ILC from baseline at Week 12, with continued improvement through Week 52 (Figure 5)

Figure 5. Reduction in NILC and ILC by visit from baseline to Week 52



Safety and tolerability

- No statistically significant changes in investigator-reported (Table 3) or patient-reported (Table 4) tolerability assessments were observed between baseline and Week 52
- During the 52-week study, 1 adverse event was reported that was not considered related to the study product; 1 participant developed mycoplasma pneumonia that resolved within 10 days following treatment with antibiotics and did not lead to study discontinuation

Table 3. Summary of investigator-assessed tolerability criteria

	Baseline	Week 12	Week 20	Week 28	Week 36	Week 44	Week 52
Peeling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dryness	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Redness	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Swelling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 4. Summary of individual-assessed tolerability criteria

	Baseline	Week 12	Week 20	Week 28	Week 36	Week 44	Week 52
Stinging	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Burning	0.00	0.02	0.00	0.03	0.00	0.00	0.00
Itching	0.00	0.02	0.00	0.03	0.00	0.00	0.00

CONCLUSIONS

- Treatment with clascoterone cream 1% for 52 weeks led to statistically significant reductions from baseline in sebum production, ILC and NILC, and IGA scores, demonstrating sustained clinical benefit over the study period for all time points presented ($P < 0.001$)
- Clascoterone cream 1% treatment was well tolerated by all patients, with 1 reported adverse event (mycoplasma pneumonia) that resolved within 10 days following antibiotic treatment and was not considered to be related to the study product
- The findings from this study are consistent with previous clinical trial data[4] and provide further evidence that clascoterone cream 1% effectively reduces sebum production and improves acne symptoms, supporting its mechanism of action in the long-term management of acne vulgaris

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Acknowledgments

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Disclosures

ZDD was an investigator on this study and received a grant from Sun Pharma. SW, YM, NS, and KK are employees of Sun Pharmaceutical Industries, Inc.

CONCLUSIONS

- Treatment with clascoterone cream 1% for 52 weeks led to statistically significant reductions from baseline in sebum production, ILC and NILC, and IGA scores, demonstrating sustained clinical benefit over the study period for all time points presented (P <0.001)
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- The findings from this study are consistent with previous clinical trial data[4] and provide further evidence that clascoterone cream 1% effectively reduces sebum production and improves acne symptoms, supporting its mechanism of action in the long-term management of acne vulgaris

5

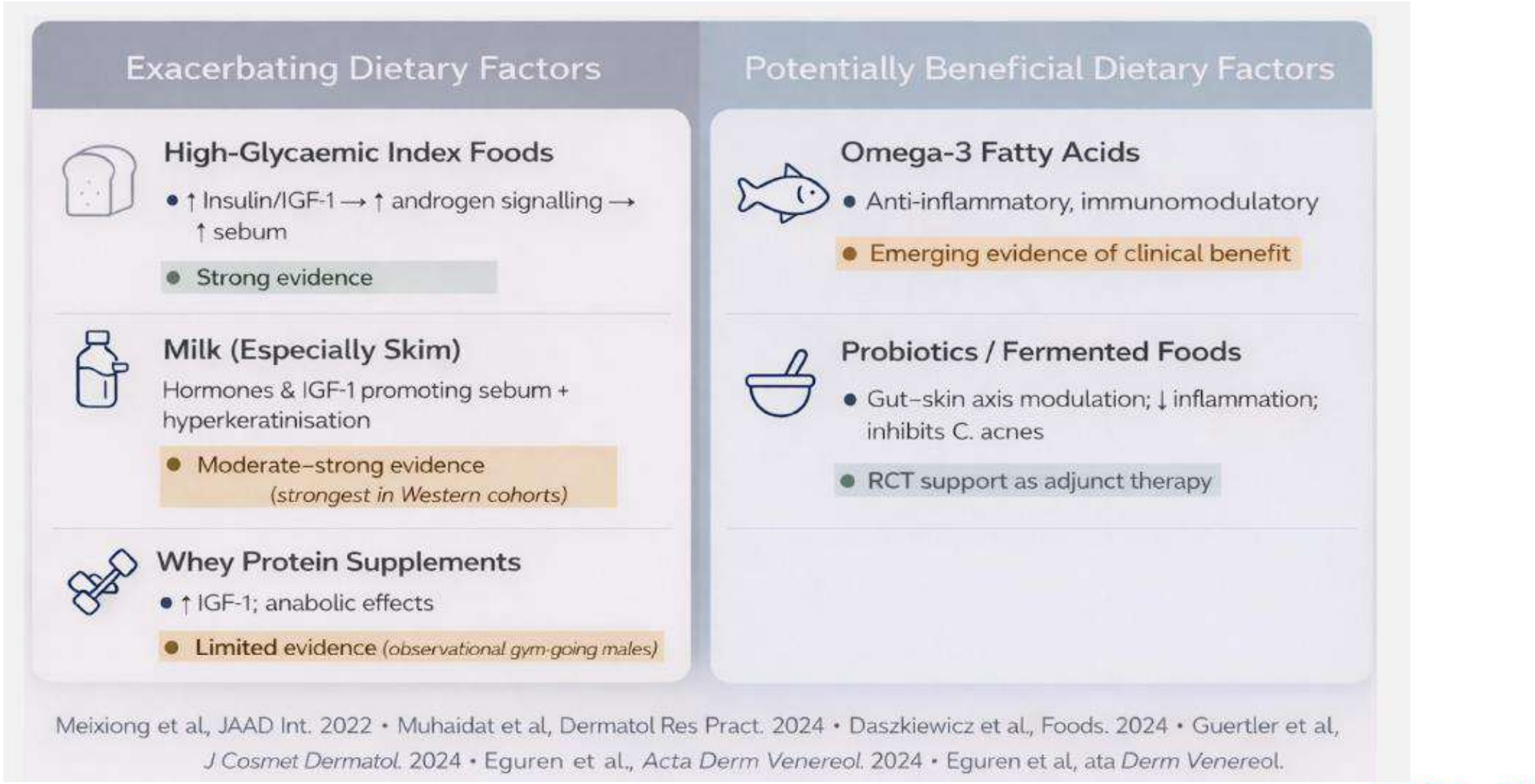
The Role of Diet in Acne Vulgaris: Evidence Review and Practical Approaches for Adolescent Consultations

Authors: Kate Bryant[1]

1. University of Otago — *Author has no relationships to disclose.*

Commercial Support:

No commercial support was received for this work.



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ePosters - Rosacea

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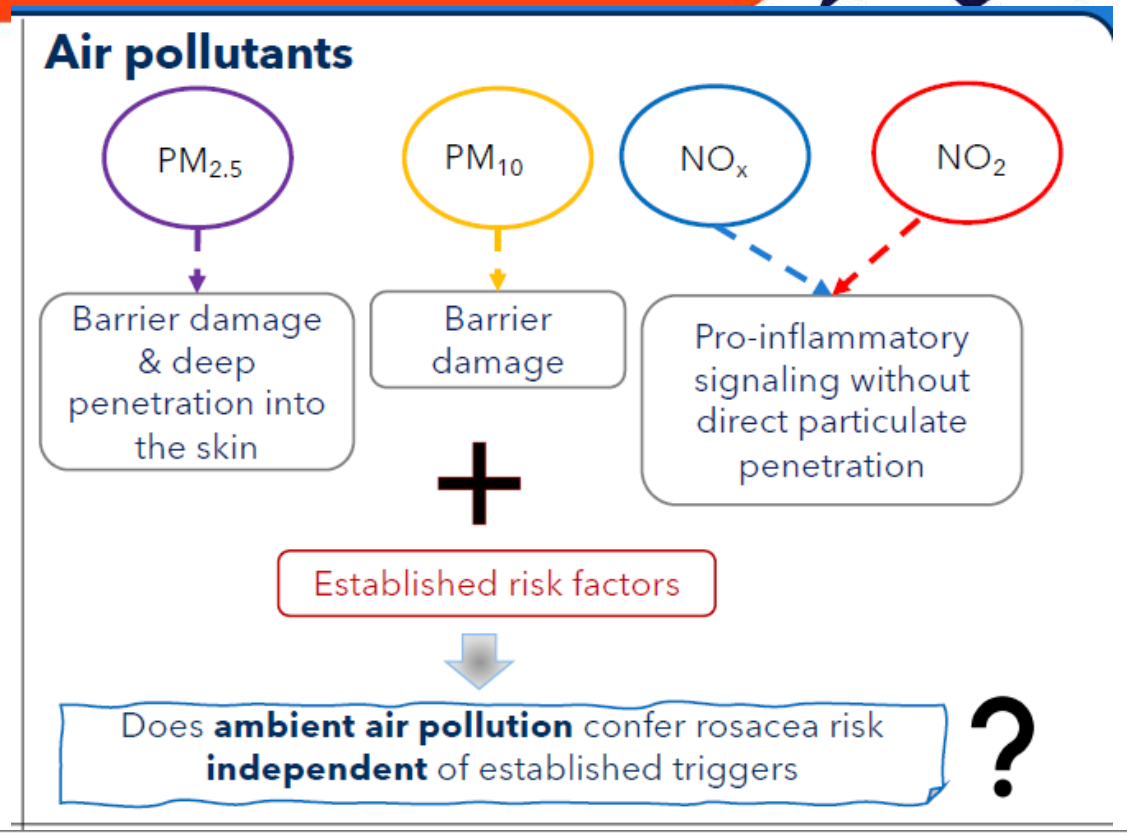
1

Air pollution as a novel risk factor for rosacea: Evidence from a large-scale population-based cohort

Elle Kim, MHS[1], Henna Parmar, BS[2], Nilanjan Chatterjee, PhD[2,3], Anna L. Chien, MD[1]



CONCLUSION

- Long-term residential exposure to ambient air pollutants is associated with increased risk of developing rosacea, even at exposure levels common in contemporary urban environments
- Participants in the highest exposure quartiles for NO_2, NO_x, and $PM_{2.5}$ experienced approximately 20-35% higher risk of developing rosacea compared to those in the lowest quartiles.
- $PM_{2.5}$ is a key pollutant of interest in rosacea research, less prone to geographic confounding than gaseous traffic related air pollutants, NO_2 and NO_x.
- Observation of increased rosacea risk even at the "relatively good" exposure levels is consistent with growing evidence that there may be no clear safe threshold for certain air pollutants, particularly PM2.5.

2

Patient Experiences with Fluticasone Propionate Nasal Spray and Rosacea-like Symptoms: Highlighting a Potential Rosacea Link

Taylor Merkle, BS[1,2]; Caitlyn Curley, MS[1,2]; Ryan Rezaee, BS[1]; Erum Ilyas MD, MBE[2]

[1]Drexel University College of Medicine, Philadelphia, PA, USA.
[2]Department of Dermatology, Drexel University College of Medicine, Philadelphia, PA, USA

Introduction

Background

- Intranasal corticosteroid sprays are widely used for allergic rhinitis and chronic sinusitis
- Over-the-counter availability since 2013 has increased accessibility and unsupervised use
- Topical corticosteroids are well known to trigger steroid-induced rosacea and rosacea-like eruptions

Knowledge Gaps

Intranasal corticosteroids remain understudied as a trigger for rosacea-like symptoms

Only isolated case reports describe rosacea-like eruptions associated with intranasal steroid exposure

Objective – Evaluate whether intranasal corticosteroid (fluticasone propionate) use is associated with rosacea-like symptoms, examining the relationship between usage frequency, duration, and symptom burden

Methods

Survey development and distribution
21 question cross-sectional survey utilizing validated *Rosascreen*
Distributed online to multiple social media platforms and in-office QR code flyers
Anonymous

Eligibility: Adults ≥ 18 and willingness to participate

Intranasal corticosteroid exposure categorization

- Rare use (<1x weekly)
- Frequent use (>2x weekly)
- Acute use (<3 months)
- Chronic use (≥3 months)

Analysis

- Simple statistics (%)
- Chi-square (χ^2)
- Odds ratios (OR) from ordinal logistic regression models
- p value < 0.05 was considered statistically significant

Results

Figure 1: *Rosascreem* Symptom Prevalence by Varying Intranasal Corticosteroid Usage Categories

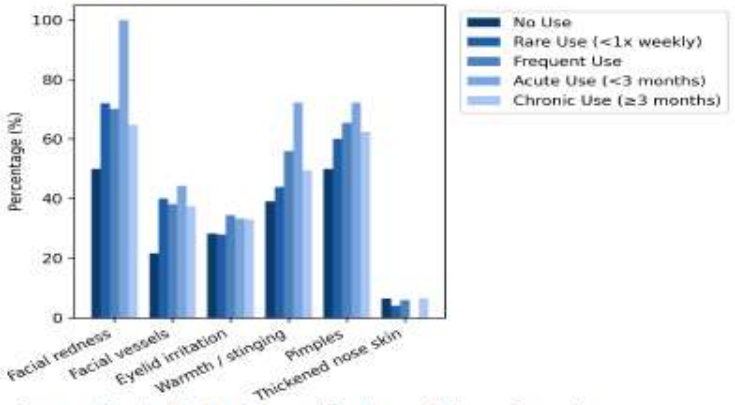
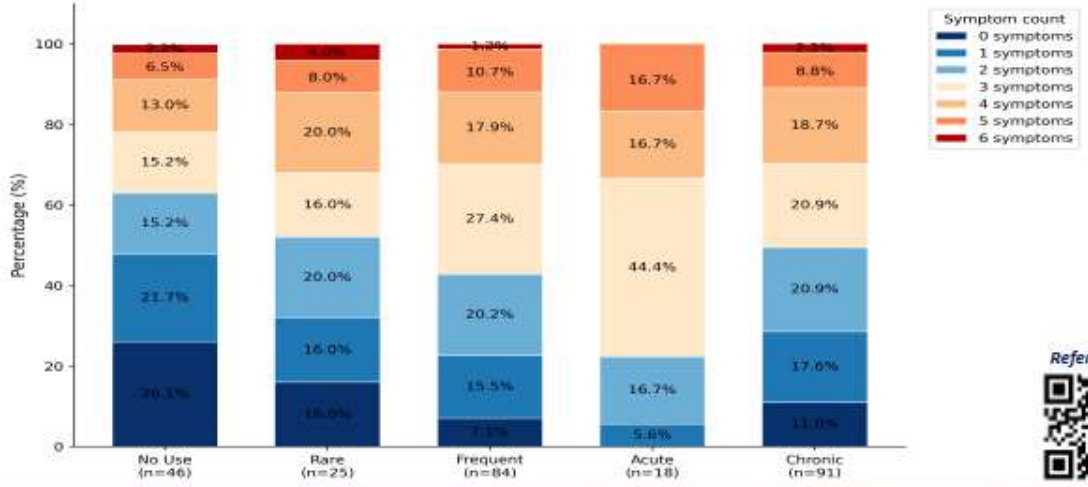


Figure 2: Distribution of Rosacea Symptom Burden Varying Intranasal Corticosteroid Usage Categories



Conclusions

Intranasal Fluticasone users reported greater rosacea-related symptom burden compared to non-users

Consider inquiring about intranasal corticosteroid use when evaluating unexplained facial redness or persistent rosacea-like symptoms

Discussion

- Intranasal steroid users generally reported higher overall symptom counts, although only facial redness differed significantly across usage groups for frequency and duration of use
- Given that facial redness is a key diagnostic indicator of rosacea in the *Rosascreen* algorithm, its elevation among users warrants attention
- Strongest association was noted in acute users potentially reflecting unmasking or exacerbation of symptoms
- Mechanism: vasoconstriction and suppression of inflammatory pathways may temporarily improve inflammatory facial symptoms but paradoxically worsen vascular reactivity when frequency of use is reduced

Limitations

- Recruitment by convenience sampling, inability to infer causality, and self-reported symptoms with possible recall and perception biases
- Demographic variables, current dermatologic surveillance or treatment regimens and other lifestyle factors important in rosacea development and severity were not available

References

Disclosures

Author has no relationships to disclose

Conclusions

Intranasal Fluticasone users reported greater rosacea-related symptom burden compared to non-users

Consider inquiring about intranasal corticosteroid use when evaluating unexplained facial redness or persistent rosacea-like symptoms

3

WRIGHT STATE UNIVERSITY | BOONSHOFT SCHOOL OF MEDICINE

Topical Imipramine and Amitriptyline Block Experimental Ultraviolet B Radiation-induced Erythema in Rosacea Subjects

Aadil Umerani[1,2], Craig Rohan[1,2], Jade Bryant[3], Jeffrey Travers[1,2]

[1]Boonshoft School of Medicine, Wright State University, Dayton, Ohio; [2]Wright State Physicians, Dayton, Ohio; [3]Florida State University

Authors have no relationships to disclose

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The B-Side of Skin Disease: Vitamin Deficiency and Dermatologic Risk

Robert Adler, BA1; Fariha Ahmed, BA1; Michael Kozlov, BA1; Houriyah Nukaly MD2; Esther Auerbach, BS1; Isha Gandhi, BS3; Manan D. Mehta, MD4; Emily Cowen, MD4; Katerina Svigos, MD4; Justin Wu Marson, MD5; Jessica Lori Feig, MD PhD4,6

1SUNY Downstate Medical Center, Brooklyn, NY
2Division of Experimental Medicine, McGill University Health Centre, Montréal, Québec, Canada
3University of Minnesota Twin Cities Medical School, Minneapolis, MN
5SUNY Downstate Department of Dermatology, Brooklyn, NY
6Department of Dermatology, Cedars Sinai Medical Center, Los Angeles, CA
6Dermatology Service, Veterans Affairs New York Harbor Healthcare System - Brooklyn Campus, Brooklyn, NY

Introduction

Vitamin B deficiencies are increasingly recognized as contributors to systemic disease, but their relationship to dermatologic outcomes remains underexplored. This study leveraged a large federated electronic health record database to evaluate the association between vitamin B deficiency and subsequent skin conditions.

Objective

To investigate whether vitamin B deficiencies are associated with altered risk of common dermatologic conditions using a large propensity-matched analysis of a multi-institutional electronic health record network.

Author has no financial or non-financial relationships to disclose

Methodology

We conducted a retrospective cohort study using the TriNetX US Collaborative Network, comprising 71 healthcare organizations. Patients with thiamine (E51) or other B vitamin deficiencies (E53) were compared to a control cohort without deficiencies. Cohort A included 350,471 patients with vitamin B deficiency, and Cohort B included 2,798,572 controls. Propensity score matching (PSM) was performed across demographics and comorbidities, yielding 348,913 patients in each cohort with balanced characteristics. Outcomes included psoriasis, acne, atopic dermatitis, hidradenitis suppurativa, rosacea, urticaria, alopecia areata, vitiligo, seborrheic dermatitis, and chronic lower-limb ulcers. Analyses included risk ratios, odds ratios, and Kaplan–Meier survival curves over a one-year follow-up.

Figures

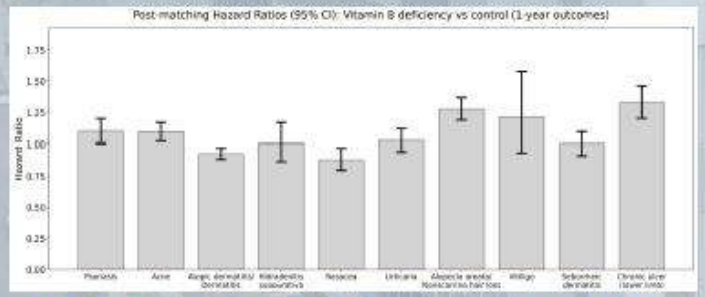

Figure 1. Post-matching hazard ratios (HR) with 95% confidence intervals for 1-year dermatologic outcomes in patients with vitamin B deficiency versus matched controls.

Results

Vitamin B deficiency was significantly associated with increased risk of several skin conditions. Deficiency was linked to higher incidence of psoriasis (OR 1.10, p=0.032), acne (OR 1.10, p=0.008), rosacea (OR 1.28, p<0.001), and vitiligo (OR 1.33, p<0.001). Conversely, lower risks were observed for atopic dermatitis (OR 0.93, p=0.002) and urticaria (OR 0.88, p=0.012). No significant differences were found for hidradenitis suppurativa, seborrheic dermatitis, alopecia areata, or chronic ulcers. Survival analyses confirmed these associations.

Conclusion

Conclusions: Vitamin B deficiency is associated with increased risk of specific inflammatory and pigmentary skin disorders, while appearing protective in some eczematous conditions. These findings highlight the importance of nutritional status in dermatologic disease risk and suggest potential opportunities for preventive interventions.

Results

Vitamin B deficiency was significantly associated with increased risk of several skin conditions. Deficiency was linked to higher incidence of psoriasis (OR 1.10, p=0.032), acne (OR 1.10, p=0.008), rosacea (OR 1.28, p<0.001), and vitiligo (OR 1.33, p<0.001). Conversely, lower risks were observed for atopic dermatitis (OR 0.93, p=0.002) and urticaria (OR 0.88, p=0.012). No significant differences were found for hidradenitis suppurativa, seborrheic dermatitis, alopecia areata, or chronic ulcers. Survival analyses confirmed these associations.

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Demodex Prevalence and Clinical Features in Non-Melanoma Skin Cancers Treated with Mohs Micrographic Surgery

Wei Li, BS[1], Benedict Ho, BS[1], Anvita Anumolu, BS[2], Kira Minkis, MD, PhD[3]

[1] MD Program, Weill Cornell Medicine, New York, NY, USA
[2] Virginia Commonwealth University School of Medicine, Richmond, VA, USA
[3] Department of Dermatology, Weill Cornell Medicine, New York, NY, USA

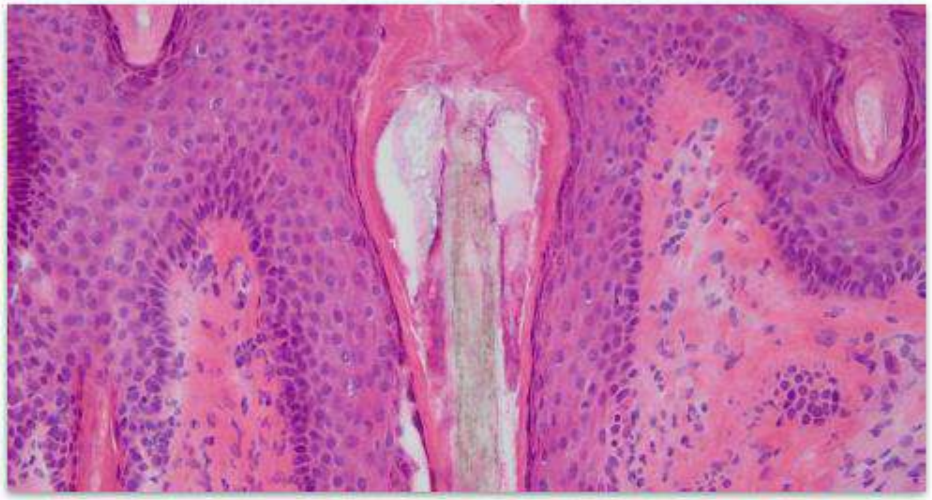
The authors have no relevant disclosures.
This study was supported in part by the 2025 WCM Alumni Association Summer Scholar Program and the MCC MARC Summer Research Fellowship.

Results

Demodex prevalence:

- **83.9%** of 56 **forehead**
- **48.5%** of 68 **eyelid**
- **84.2%** of 76 **nose**
- **64.3%** of 56 **cheek**
- **79.2%** of 48 **chin**
- **5.3%** of 76 **lower extremity**

Prevalence significantly greater in superficial and nodular BCCs (**94%**) vs. more aggressive BCCs (**61%**) at forehead (**p=0.0022**).



Demodex mites along hair shaft (cheek SCC, 20x).

Females had lower mite prevalence (**50.8% vs. 66.9%, p<0.001**) than males.

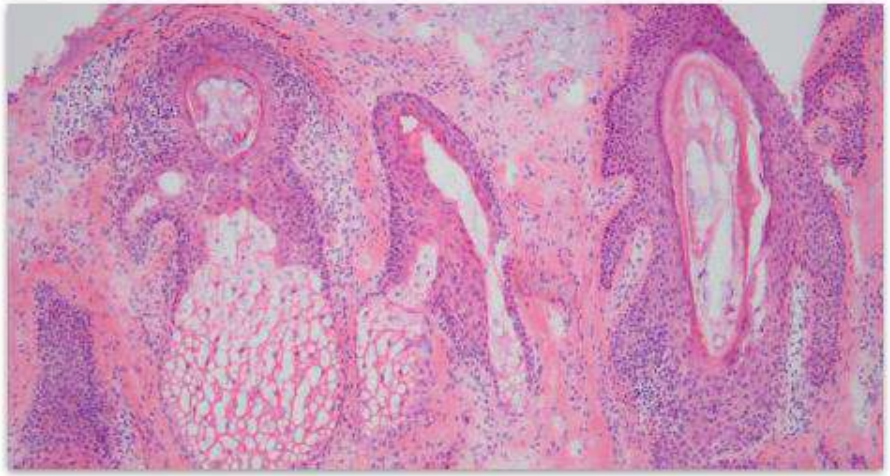
Male sex (**p=0.0036**) and older age (**p=0.0188**) associated with increased presence of >5 mites/follicle.

No significant statistical association was found between facial Demodex presence and immunosuppression, diabetes, Parkinson's disease, rosacea, seborrheic dermatitis, or blepharitis.

Discussion and Conclusion

Demodex mites are highly prevalent in NMSC Mohs sections at forehead, nose, and chin locations, which are common sites for Mohs procedures.[5]

Surgeons should be aware of the high frequency of incidental Demodex findings and any associated perifollicular inflammation.



Cluster of mites in pilosebaceous unit (forehead BCC, 10x).

Mohs sections offer a valuable opportunity to further investigate the role of Demodex in tumor-specific and inflammatory pathogenesis.

5. Ad Hoc Task Force et al., JAAD 2012

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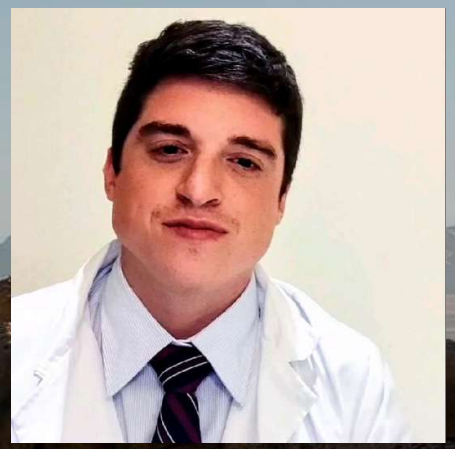

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