What's hot in Rheum Derm?



Hal Flowers MD
October 2024



Talk outline

- 7 med derm cases, as they came
- Focus on new steps in work up and therapeutic management
- Bell ringers and cup fillers



DISCLOSURES

• <u>Clinical trials</u> for Abbvie, Regeneron, Acelyrin, Clinuvel, AstraZeneca, Sun Pharmaceuticals

• Advisory Boards for Bristol Myers Squibb, Jannsen, Argenx













Treatment of cutaneous DMM

- Myocutaneous discordance: often treating skin disease CADM or "post-myopathic"
 - 51/49% (classic/CADM) at UPenn cohort of 269
 - 40% of classic became postmyopathic
 - Of those, 45% had CDASI-A scores > 14 (mod-severe)
- Skin symptoms often >>>> clinically evident disease
- Worst organ involved should dictate treatment
 - HCQ, apremilast will not help muscles



Hydroxychloroquine

- Monotherapy for mild disease
- Non-immunosuppressive; stackable
- Generally better as adjunctive
- Better with IS agents (JAAD Oct 2021)
- Flares assoc with SAE-1 + (JAMA Derm Oct 2018)



Apremilast

8 pt with refractory cutaneous dermatomyositis (no active muscle)

- Failed OCS, multiple steroid-sparing agents (median 5 agents)
 - Mean dz duration of 5.5 years

- 7 of 8 saw meaningful improvement in CDASI at 3 mo
 - 2 pt tapered steroids; 1 pt stopped steroid sparing agent



Bitar et al. JAMA Derm. Dec 2022; 158(12):1357-1366. Bitar et al. JAAD Case Reports. 2019 Feb 1;5(2):191-4.

Conventional immunosuppressive agents

- <u>MTX</u>
- AZA
- <u>MMF</u>
- Calcineurin inhibitors

* No particular cutaneous phenotypes where these agents are preferred



Newer (more effective) therapies

• <u>IVIG</u>

• JAK inhibitors

IFN-inhibitors



Newer (more effective) therapies

• IVIG

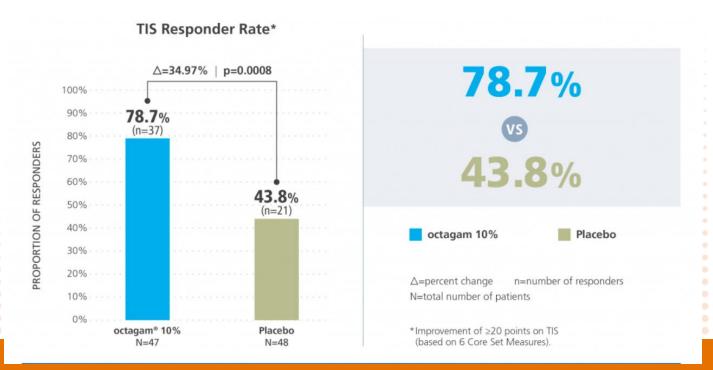
• JAK inhibitors

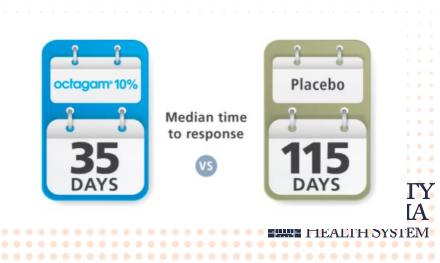
• IFN-inhibitors

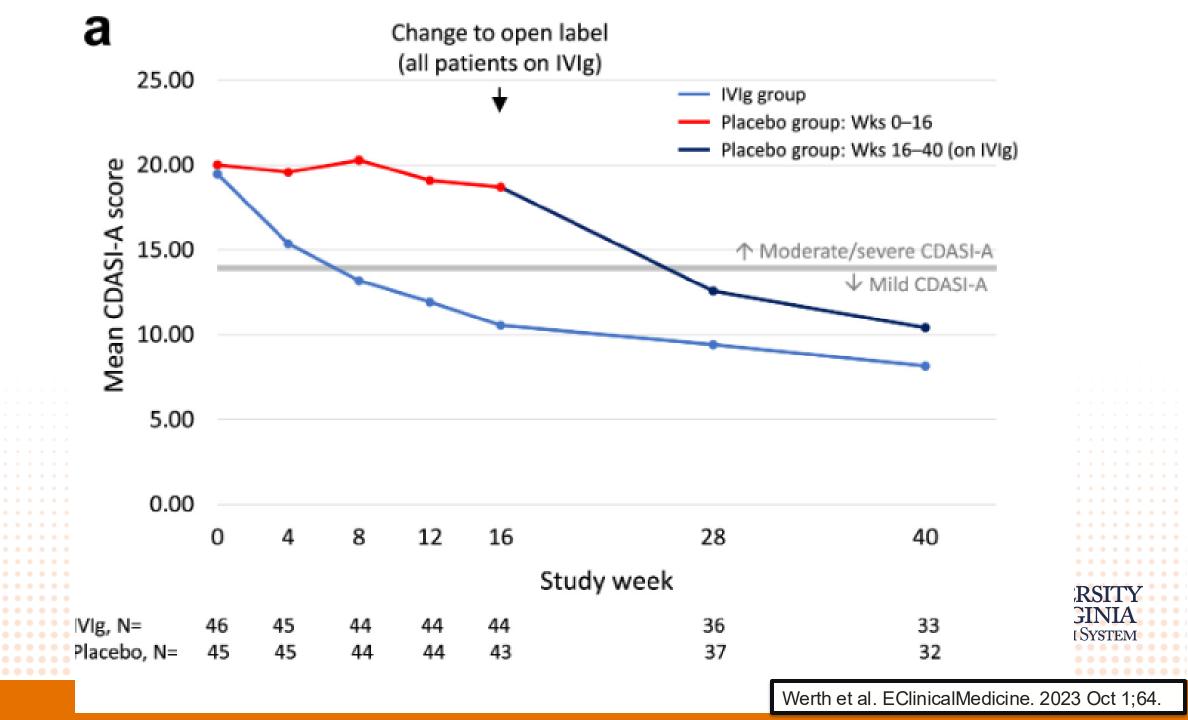


ProDerm Trial

- Double blind, placebo controlled, switch arm + 6 mo open label extension
- 95 adults, 10 countries
- Inclusion: DMM per <u>Bohan and Peter</u>, active disease, +/- other therapy







IVIG for DMM

Highly effective agent for cDMM

■ Usual dosing at 2 g/kg divided over 2 days

Monthly dosing, goal to decrease frequently over time







Newer (more effective) therapies

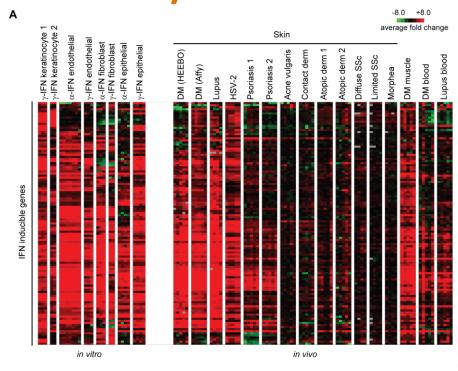
• <u>IVIG</u>

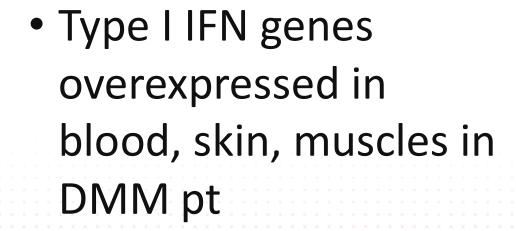
• JAK inhibitors

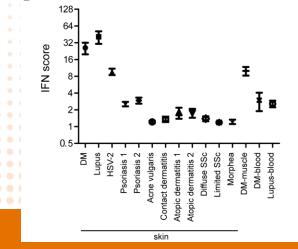
• IFN-inhibitors



Dermatomyositis as an "acquired interferonopathy"



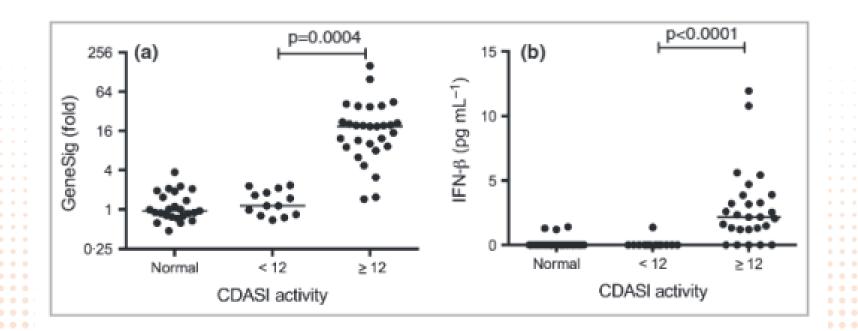




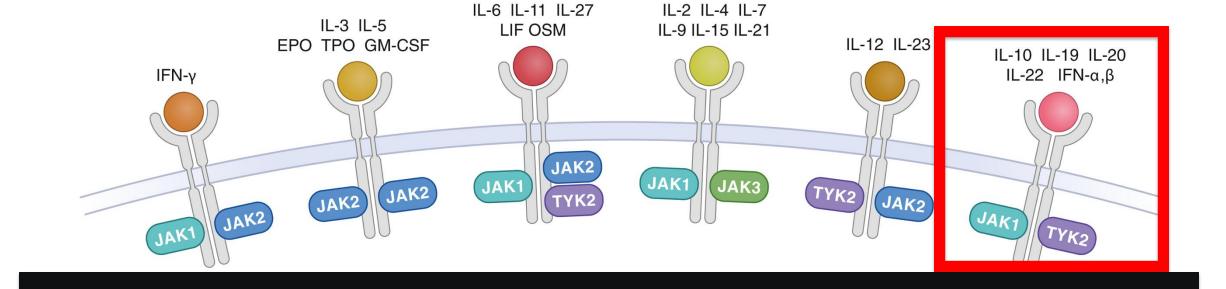


Dermatomyositis as an "acquired interferonopathy"

• IFNβ is highly correlated with skin dz activity







Oral JAK inhibitors in dermatomyositis: systematic review

- 48 publications of 145 unique patients (adult DM, n=84; JDM, n=61)
- 61 of 84 adults (73%) had refractory skin disease at baseline
 - 61 of 61 saw improvement
- 57 of 61 JDM pt saw improvement in skin disease
- 16 of 16 saw improvement in muscle symptoms
- 31 of 33 (94%) with ILD improved



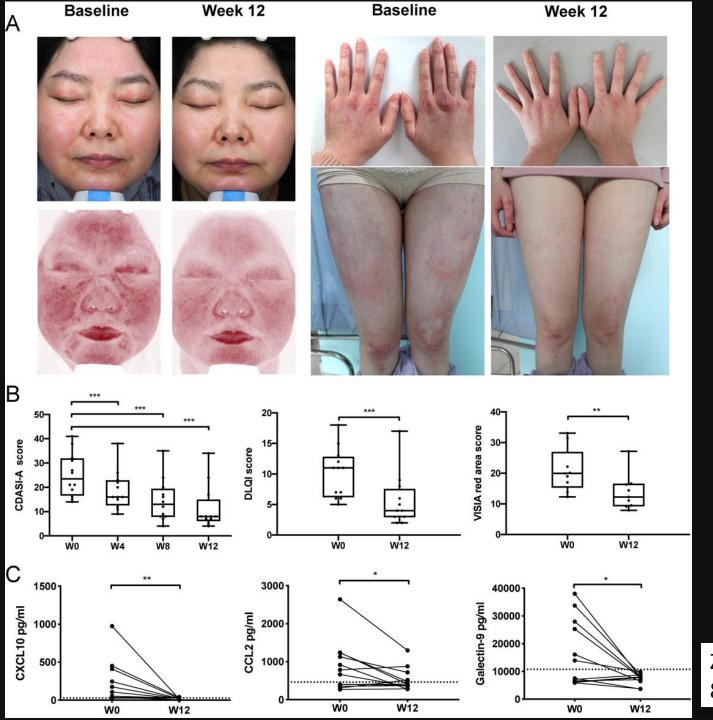
Baricitinib for cutaneous DMM

■12 pt on 2 mg BID x 12 weeks

Improvements in 9 of 12 in CDASI-A

Pred taper in 5 of 6





Zhao et al. JAAD. Dec 2022; 87(6): 1374-75.

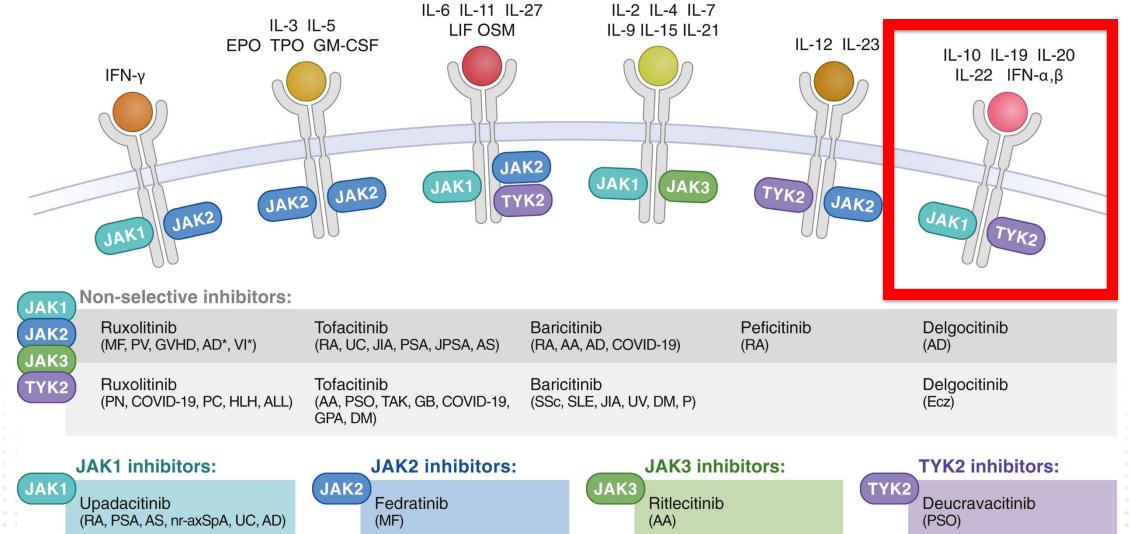


Zhao et al. JAAD. Dec 2022; 87(6): 1374-75.

Beprocitinib for DMM

Selective JAK1/TYK2 inhibitor





Upadacitinib (RA, PSA, AS, nr-axSpA, UC, AD) Filgotinib (RA, UC) Abrocitinib (AD) Upadacitinib (JIA, CD, TAK, AA, SLE, HS, GCA) Filgotinib (AS, CD, PSA)

JAK2 inhibitors:

Fedratinib
(MF)
Pacritinib
(MF)

JAK3 inhibitors:

Ritlecitinib
(AA)

Ritlecitinib
(VI)

Deucravacitinib (PSO)

Deucravacitinib (PP, SS, SLE, PSA)

Jensen et al. EBioMedicine. 2023 Nov 1;97.

Beprocitinib for DMM

Selective JAK1/TYK2 inhibitor

Completed P2 and now P3 trials for DMM

- Data expected later this year
 - ?First JAKi approved for DMM



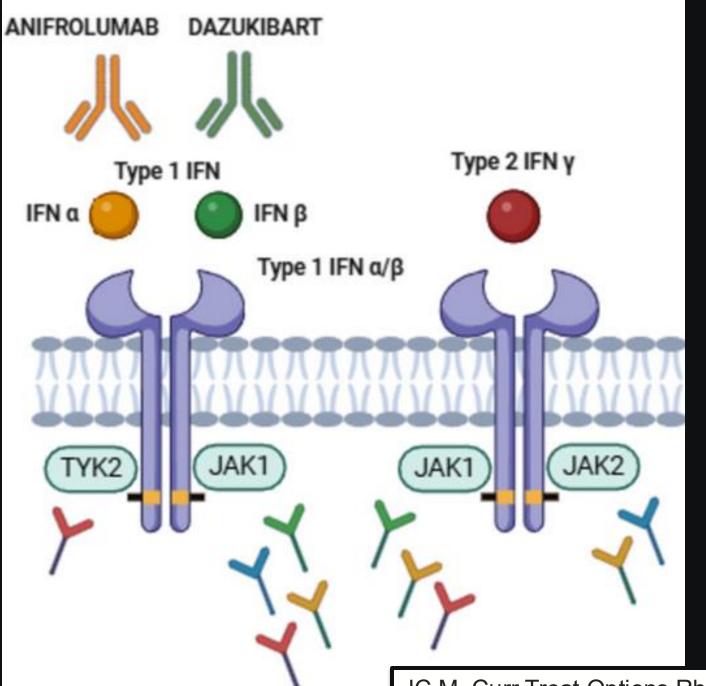
Newer (more effective) therapies

• <u>IVIG</u>

• JAK inhibitors

IFN-inhibitors





JC M. Curr Treat Options Rheum. 2025 Dec;11(1):1-2.



Anifrolumab in recalcitrant cutaneous **dermatomyositis**: A multicenter retrospective cohort study

KS Shaw, KB Hashemi, RL Castillo, <u>E Rainone</u>... - Journal of the American ..., 2024 - Elsevier ... in cutaneous disease activity after 89 initiating **anifrolumab** (Figure 1). Mean decrease [... **anifrolumab**, respectively. 91 For those patients who had received at least 4 doses of **anifrolumab** ...

☆ Save ワワ Cite Cited by 6 Related articles All 3 versions Web of Science: 1

■ Mab aga

[HTML] Refractory dermatomyositis responsive to anifrolumab

PS Ang, E Ezenwa, K Ko, MD Hoffman - JAAD Case Reports, 2024 - Elsevier ... In this report, we present an individual with DM whose refractory skin disease responded to **anifrolumab**, a monoclonal antibody blocking IFN-α receptor-1. ... We report an individual with ...

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Approve

[PDF] A Novel Treatment for Skin Manifestations in **Dermatomyositis**: A Case Report

MS Murthy, A Haikal - Cureus, 2024 - cureus.com

Numero

... **Anifrolumab** has additionally been shown to have a ... **anifrolumab** for treating DM skin manifestations, especially in refractory cases. More research is needed to guide where **anifrolumab** ... \Leftrightarrow Save \Im Cite Cited by 3 Related articles All 8 versions \Leftrightarrow

[CITATION] A Novel Treatment for Refractory **Dermatomyositis**: A Systematic Review of **Anifrolumab** and **Dermatomyositis**

A Srivatsa, <u>W Rehman</u>, <u>R Rehman</u>, <u>M Moossavi</u>... - Journal of the American ..., 2025 - Elsevier ... **Dermatomyositis** is a severe systemic autoimmune disease with an estimated 5% 32 ... **anifrolumab** and **dermatomyositis**. Of the 50 articles screened, six met the criteria for inclusion ...











Dazukibart for DMM

- RCT at 25 sites in Europe and US
- Adults 18–80 years with skin-predominant modsevere DMM (P1-2a) and muscle predominant (P3) enrolled
- Failed one additional treatment
- Enrolled to dazukibart 150, 600 or PBO

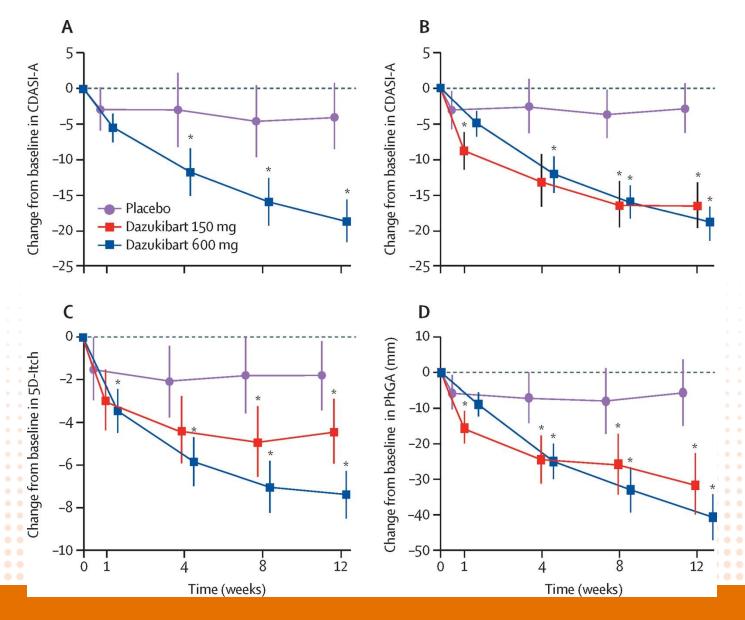


Dazukibart for DMM

- 75 patients enrolled and treated
- Treatment-emergent adverse events occurred in 12 (80%) of 15 patients in the dazukibart 150 mg group versus 30 (81%) of 37 in the dazukibart 600 mg group versus 18 (78%) of 23 in the placebo group, with the most common being infections and infestations (two [13%] vs 12 [32%] vs seven [30%]).
- Four (11%) patients in the dazukibart 150 mg group and one (4%) in the placebo group reported serious adverse events. One patient in stage 3 received dazukibart 600 mg then placebo and died during follow-up due to HLH/MAS

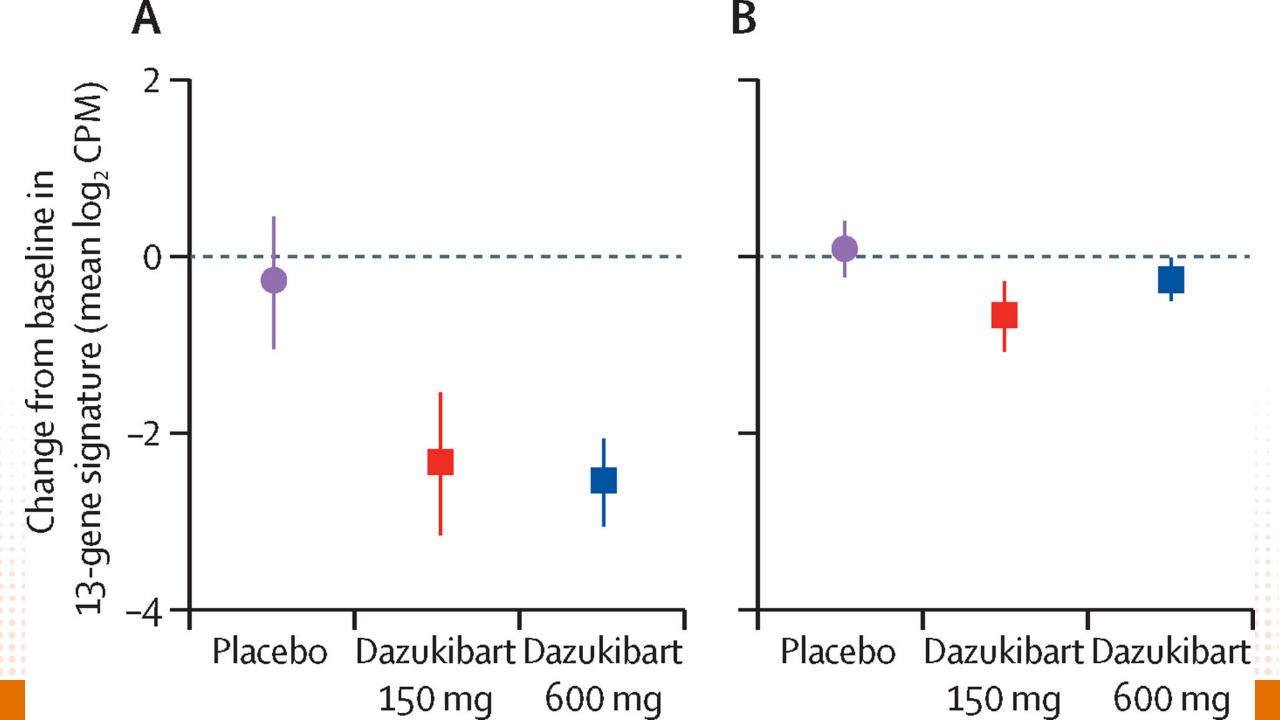
Fiorentino et al. The Lancet. 2025 Jan 11;405(10473):137-46.

IFN-inhibition for cutaneous DMM





Fiorentino et al. The Lancet. 2025 Jan 11;405(10473):137-46.



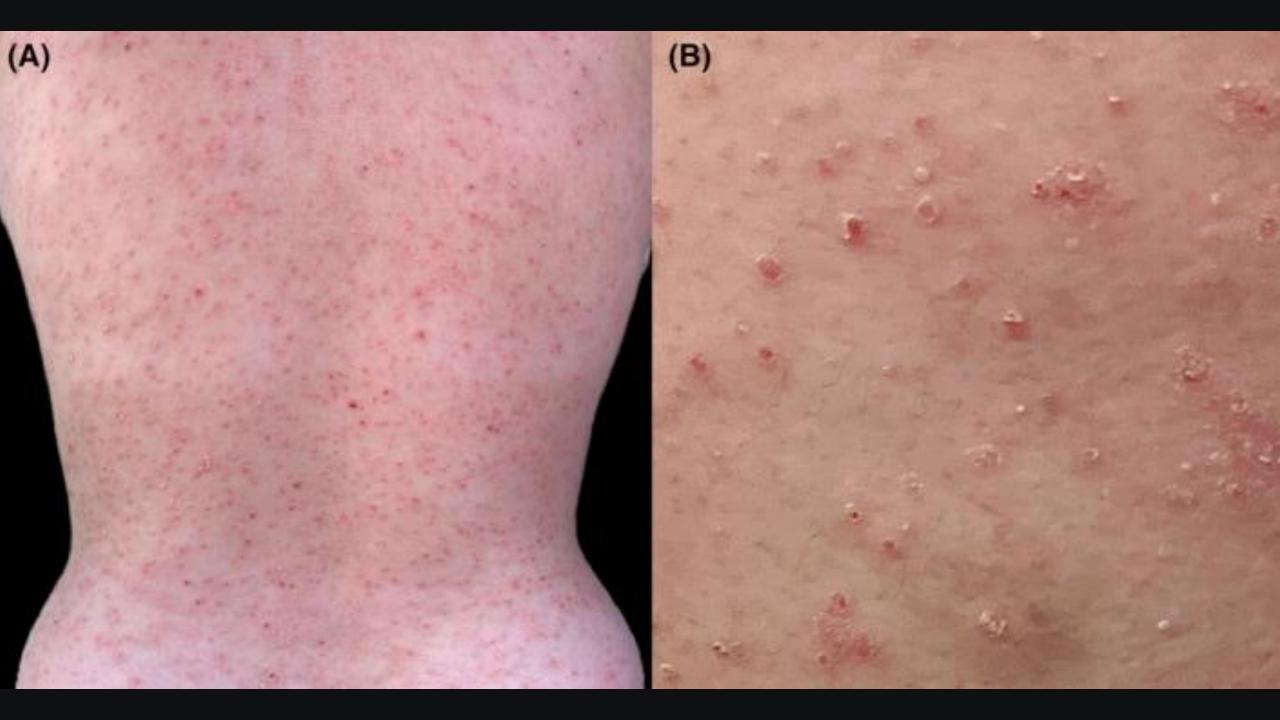




TNF- α inhibitor induced psoriasis

- Palmoplantar > flexural pustular eruptions
- Scalp (~50%), postauricular, face, umbilicus
- Impetiginization common ("dirty psoriasis")
- Up to 10% of peds pt w IBD treated with TNF-inhibitor
 - Mean onset 10-20 months after starting tx
 - Tx change in ~20%
 - ~50% recur with another TNF-inhibitor

- 1. Ossio et al J Cutan Med Surg. 2020
- 2. Sridhar et al Inflam Bowel Dis 2018
- 3. Perman et al Ped Derm 2012
- 4. Sherlock et al J Ped Gastr Nutr 2015

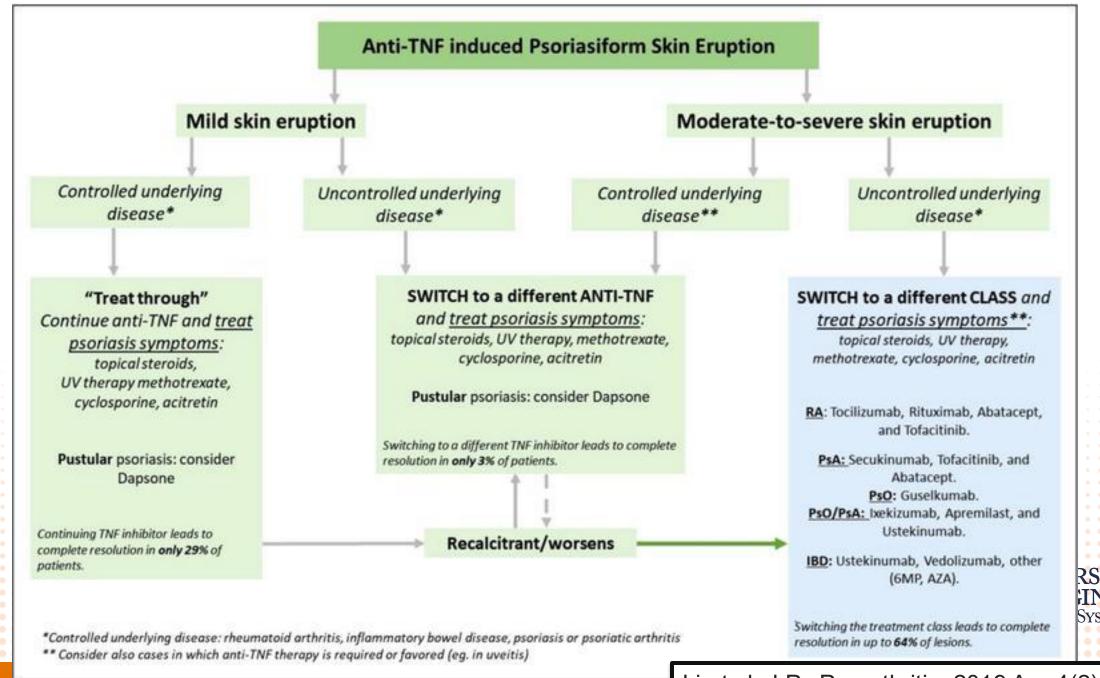






"Psoriasis punctata" is also typical of TNF induced disease

- 93 patients with TNF inhibitor-induced psoriasis at UVA
- 21 patients (22.6%) dx with "psoriasis punctata"
 - Two thirds with concurrent plaque psoriasis
 - Often <u>perifollicular</u> and may show clinical and histologic overlap with <u>pustular</u> variants of psoriasis
- Vs "other" group
 - Younger average age: 31 vs 38 yo
 - Shorter onset (NS): 19 vs 27 months
 - No major differences in TNF inhibitor, underlying disease, sex, % with prior psoriasis



Li et al. J Ps Psoarthritis. 2019 Apr;4(2):70-80.





[PDF] Atopic-like dermatitis after secukinumab injection: a case report

M Burlando, E Cozzani, R Russo, A Parodi - Dermatol Ther, 2019 - academia.edu

... Six months after the first dose of **Secukinumab** was ... nose-**dermatitis**, 4 days after every **Secukinumab** injection. ... An atopic **dermatitis** eczema-like was diagnosed and **Secukinumab** ...

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New onset of psoriasis **induced** by **secukinumab** in a patient with ankylosing spondylitis: a case report

D Currado, DPE Margiotta, C Conforti... - Scandinavian Journal ..., 2020 - Taylor & Francis

... in the safety profiles of **secukinumab** compared with other ... after swapping from infliximab to **secukinumab**. A 54-year-old ... , such as seborrhoeic **dermatitis**, acute spongiotic eczema, ...

☆ Save 兒 Cited by 17 Related articles All 7 versions Web of Science: 12

Secukinumab-induced paradoxical pustular psoriasis

S Dogra, A Bishnoi, T Narang... - Clinical and experimental ..., 2019 - academic.oup.com

... tered by subcutaneous injections of **secukinumab** 300 mg (by ... administered the 14th dose of **secukinumab** and after 3 days, ... Psoriasis and pustular **dermatitis** triggered by TNF-{alpha} ...

☆ Save ® Cite Cited by 52 Related articles All 5 versions Web of Science: 38

Treatment of **Secukinumab-induced** Atopic **Dermatitis-**like Lesions Using Upadacitinib: A Case Report

W Xiang, X Lin, Q Li, W Zheng - Indian Journal of Dermatology, 2025 - journals.lww.com

... weekly **Secukinumab** therapy at ... **Secukinumab**, he noticed a small number of erythematic papules on his hands. Despite discontinuing **Secukinumab** for two weeks, his atopic **dermatitis**-...





Morphologic Switch From Psoriasiform to Eczematous Dermatitis After Anti-IL-17 Therapy

A Case Series

and Severity Index; UV-B, ultraviolet B.

Francis Yi Xing Lai, MBBS (Hons)¹; Eleanor Higgins, MRCPI¹; Catherine H. Smith, FRCP¹; et al

Table. Clinical Characteristics of the 4 Cases and Therapeutic Response											
Case No./Sex/ Age, y	Psoriasis Subtype	Prior Psoriasis Therapies	Prior Atopy	PASI Following Secukinumab (Baseline PASI)	Anatomical Distribution of Eczema	Duration of Secukinumab Therapy Before Eczema Onset	Investigations	Eczema Response			
1/F/30s	CPP	UV-B, MTX, adali- mumab, ustekinumab	Asthma	PASI 100 (PASI 19.4)	Flexural	12 weeks (8 weeks after reintroduction)	NA	Controlled with potent topical steroids			
2/F/50s	CPP	UV-B, MTX, CsA, adalimumab, etanercept, inflixi- mab, ustekinumab	Eczema	80% improve- ment (PASI 30.0) ^a	Facial/flexural	5 weeks (12 weeks for ustekinumab)	IgE 1577 (nor- mal, 0-81 kU/L) European Base- line Series patch test-negative	Severe and recalcitrant, persisted after secukinumab cessation and with the introduction of methotrexate and apremilast; patient continued to require day hospital admissions			
3/F/30s	CPP	UV-B, MTX, CsA, adalimumab	Asthma	80% improve- ment (PASI 18.4)	Generalized/ dyshidrotic	5 weeks	Histologic ex- amination re- sults: acute spongiotic der- matitis with eosinophils	Severe and generalized, requiring cessation of secukinumab to resolve; etanercept introduced and PASI 100 achieved			
4/F/50s	СРР	UV-B, MTX, CsA	Asthma, eczema	PASI 100 (PASI 11.0)	Flexural/ generalized	4 weeks	NA	Severe and generalized, requiring cessation of secukinumab to resolve; mild recurrence of psoriasis (PASI 3.6); cyclosporine, 4 mg/kg introduced			

Abbreviations: CPP, chronic plaque psoriasis; CsA, cyclosporine; IgE, immunoglobulin E; MTX, methotrexate; NA, not applicable; PASI, Psoriasis Area



B Development of eczema following secukinumab therapy





What's new in psoriasis?

> Topical therapies

➤ <u>Injectable therapies</u>

Oral therapies



The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

An Oral Interleukin-23–Receptor Antagonist Peptide for Plaque Psoriasis

Robert Bissonnette, M.D., Andreas Pinter, M.D., Laura K. Ferris, M.D., Ph.D., Sascha Gerdes, M.D., Phoebe Rich, M.D., Ronald Vender, M.D., Megan Miller, M.P.H., Yaung-Kaung Shen, Ph.D., Arun Kannan, Ph.D., Shu Li, Ph.D., Cynthia DeKlotz, M.D., and Kim Papp, M.D., Ph.D.

Do we really need another psoriasis systemic?

> Pt often prefer oral agents to injections, esp children and needle-phobic

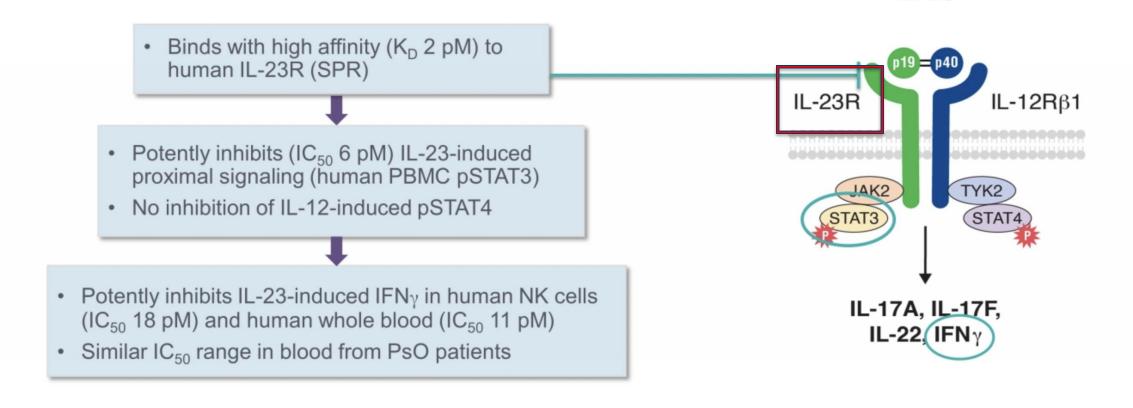
> Apremilast has limited efficacy and is sometimes intolerable

- > Deucravacitinib carries concerns about safety of JAK/TYK2 inhibition
 - Two oral TYK2 inhibitors in P3: TAK-279, ESK-001
 - ➤ Oral IL17A inhibitor with positive P1 data: DC-806

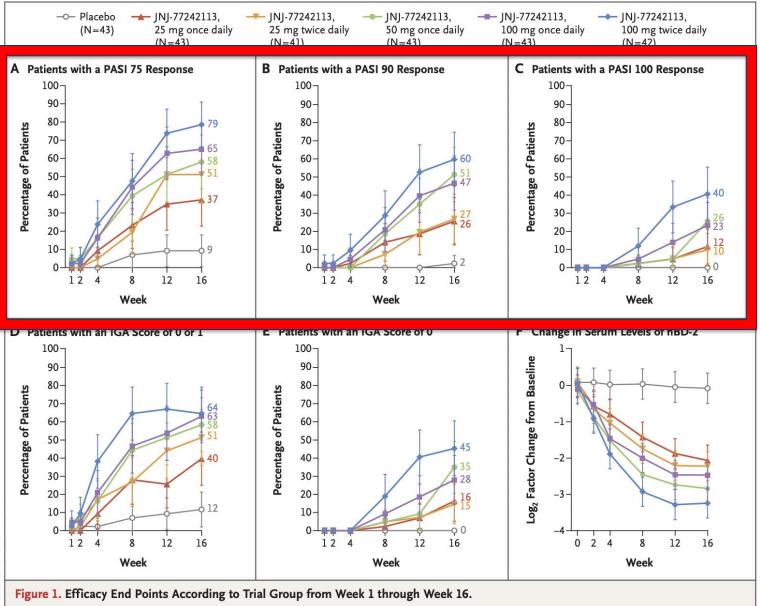


JNJ-77242113 (2113)

 JNJ-2113 is a competitive peptide antagonist that binds with high affinity to IL-23R, and selectively inhibits IL-23 proximal signaling and downstream cytokine production with high potency



IL-23

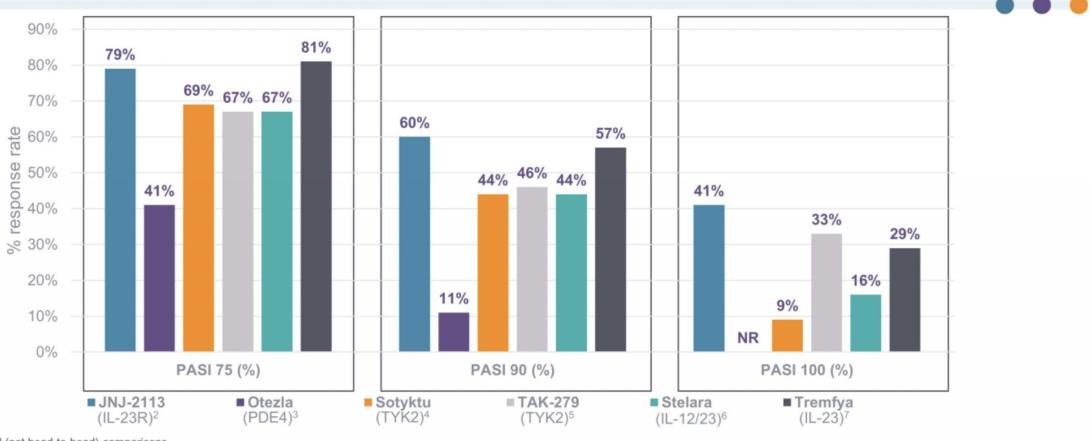


Scores on the Psoriasis Area and Severity Index (PASI) range from 0 to 72, with higher scores indicating greater extent or severity of psoriasis. PASI 75 response, PASI 90 response, and PASI 100 response refer to reductions from baseline of at least 75%, 90%, and 100%, respectively, in the PASI score. Scores on the Investigator's Global Assessment (IGA) range from 0 (clear skin) to 4 (severe disease); a score of 1 indicates minimal disease. I bars denote 95% confidence intervals. For serum levels of human β -defensin 2 (hBD-2), I bars indicate linear mixed-effect model-based 95% confidence intervals. The widths of the confidence intervals have not been adjusted for multiplicity and should not be used to infer definitive effects of JNJ-77242113 for the secondary end points.



Bissonnette et al. NEJM. 2024;390:510-21

Cross-Study Comparison of JNJ-2113 to Clinically Relevant Phase 2 Benchmarks¹



- . Cross trial (not head-to-head) comparisons
- . JNJ2113 100 mg bid dose. Wk 16 endpoint (Placebo: PASI 75: 9.3%, PASI 90: 2.3%, PASI 100: 0%)
- 3. Otezla 30 mg qd approved dose. Week 16 primary endpoint. Papp K et al. Lancet 2012; 380: 738–46. (Placebo: PASI 75: 5.7%, PASI 90: 1.1%, PASI 100: NR)
- Sotyktu 3 mg bid dose (6 mg qd dose approved). Wk 12 primary endpoint. Papp K et al. N Engl J Med 2018; 379:1313-1321. (Placebo: PASI 75: 7%, PASI 90: 2%, PASI 100: 0%)
- TAK-279 30 mg qd dose (Expected phase 3 dose). Wk 12 primary endpoint. AAD 2023. (Placebo: PASI 75: 5.8%, PASI 90: 0%, PASI 100: 0%)
- Stelara 45 mg wkly x 4 (~approved 90 mg week 0 and 2 approved dose). Wk 12 primary endpoint. Krueger et al. N Engl J Med 2007;356:580-92. (Placebo: PASI 75: 2%, PASI 90: 2%, PASI 100: 0%)
- Tremfya 200 mg wk 0, 4, then q 8 wks (approved dose 100 mg wk 0, 4 then q 8 wks). Wk 16 primary endpoint. Gordon KB et al. N Engl J Med 2015;373:136-44. (Placebo: PASI 75: 5%, PASI 90: 2%, PASI 100: 0%)



Table 3. Adverse Events after Initiation of JNJ-77242113 or Placebo in the Safety Analysis Set.*

Variable	Placebo (N = 43)	JNJ-77242113 25 mg Once Daily (N = 43)	JNJ-77242113 25 mg Twice Daily (N=41)	JNJ-77242113 50 mg Once Daily (N=43)	JNJ-77242113 100 mg Once Daily (N=43)	JNJ-77242113 100 mg Twice Daily (N=42)	JNJ-77242113 Dose Groups (N=212)
Mean duration of follow-up — wk	15.0	15.7	16.2	15.8	16.1	15.8	15.9
Adverse events — no. (%)†	22 (51)	20 (47)	20 (49)	26 (60)	19 (44)	26 (62)	111 (52)
Infections and infestations	12 (28) 5 (12) 2 (5)	15 (35) 5 (12) 1 (2)	14 (34) 8 (20) 3 (7)	17 (40) 3 (7) 8 (19)	7 (16) 3 (7) 1 (2)	11 (26) 4 (10) 2 (5)	64 (30) 23 (11) 15 (7)
Covid-19							
Nasopharyngitis							
Upper respiratory tract infection	1 (2)	3 (7)	0	0	0	2 (5)	5 (2)
Gastrointestinal disorders	5 (12)	3 (7)	4 (10)	6 (14)	4 (9)	7 (17)	24 (11)
Diarrhea	1 (2)	2 (5)	2 (5)	4 (9)	1 (2)	1 (2)	10 (5)
Nervous system disorders	1 (2)	0	2 (5)	3 (7)	3 (7)	2 (5)	10 (5)
Headache	1 (2)	0	1 (2)	1 (2)	3 (7)	1 (2)	6 (3)
Respiratory, thoracic, and mediastinal disorders	1 (2)	1 (2)	0	1 (2)	3 (7)	2 (5)	7 (3)
Cough	0	1 (2)	0	1 (2)	3 (7)	1 (2)	6 (3)
Serious adverse events — no. (%)	0	0	0	1 (2)	2 (5)	0	3 (1)
Infections and infestations	0	0	0	1 (2)	1 (2)	0	2 (1)
Covid-19	0	0	0	0	1 (2)	0	1 (<1)
Infected cyst	0	0	0	1 (2)	0	0	1 (<1)
Psychiatric disorders	0	0	0	0	1 (2)	0	1 (<1)
Suicide attempt	0	0	0	0	1 (2)	0	1 (<1)

^{*} The safety analysis set included the same patients as the full analysis set. Covid-19 denotes coronavirus disease 2019. † Adverse events with an incidence of at least 5% (on the basis of the preferred term) in any trial group through the end of the trial are shown.

- 684 patients (456 to treatment, 228 to PBO)
- Endpoint was PASI 90 and IGA 0/1
- 65% of those in the icotrokinra cohort attained IGA 0/1 compared to only 8% of those given a placebo.
- 50% achieved PASI 90 versus just 4% in the placebo arm (both *P* < .001).
- 33% attaining an IGA score of 0 and 27% a PASI 100 score (1% for PBO)
- 24 weeks: 74% IGA 0/1 and 65% PASI 90
- Similar Aes to placebo, including 6% GI Ses of patients in both cohorts



 Healthy 56 yo F with two years of depressed frontal scalp/forehead plaques with pulling and itching sensation

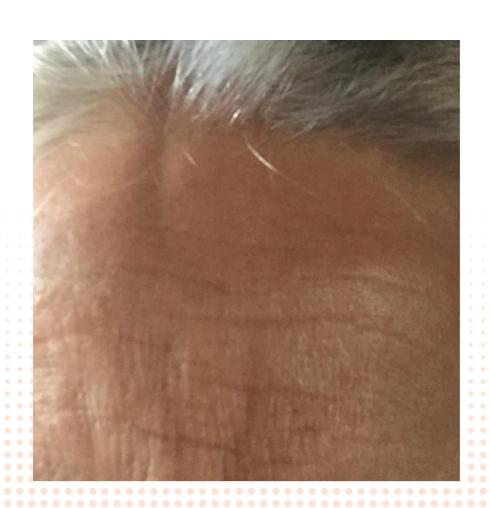
 Biopsy unremarkable, possibly early morphea

• Started methotrexate for presumed linear en coup de sabre morphea at 15 mg weekly



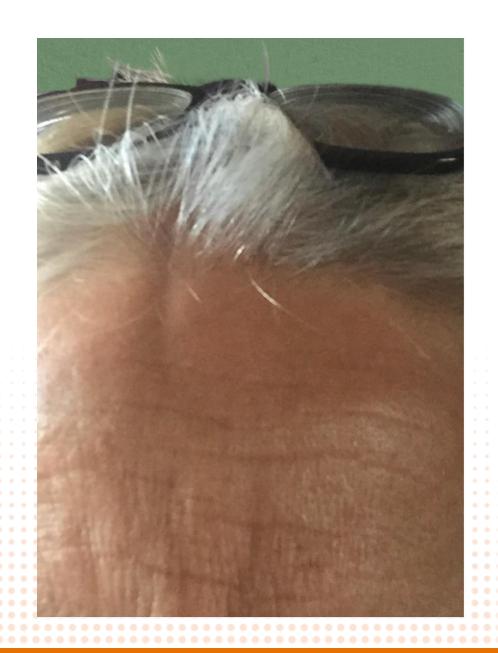
Case History

- 34 yo F presented with 1 week of tender leg and arm lesions
- No recent fevers, chills, infections, new medications, cough/SOB
- Also knee and elbow pain
- Breast lesion as well x 4 mo: painful
 - Recently underwent mammogram which was negative for cancer
 - Bx pending



Case History

- 34 yo F presented with 1 week of tender leg and arm lesions
- No recent fevers, chills, infections, new medications, cough/SOB
- Also knee and elbow pain
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Pressure induced localized lipoatrophy

Loss of SQ adipose tissue secondary to repeated microtrauma and reduced perfusion

- Localized lipoatrophy
 - Lipoatrophia semilunaris of the thigh
 - Lipoatrophy from elbow compression
- Either rare or underrecognized/underreported
- · Biopsy shows normal to complete loss of fat without signs of panniculitis



"En coup de sabre"







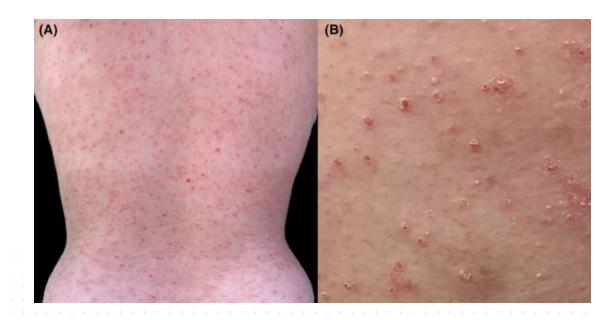
"En coup de lunnettes"





Teaching points

- "Psoraisis punctata" is a morphologic clue for TNF inhibitor induced psoriasis
- ***
- Morphea may arise post radiation; consider HCQ or apremilast in select pt





Teaching points

- Nodular amyloid is assoc with Sjogren's and systemic amyloidosis
- Free testosterone is most important test for HMSD; know when to get labs
- Granulomatous mastitis is an inflammatory condition assoc with erythema nodosum (and arthritis)











The end, thanks!

