Diagnostic & Therapeutic Pearls

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"a great wind is blowing, and that gives you either imagination or a headache"

Catherine the Great

LIFE CHANGING MEDICATIONS

• New psoriasis therapies
• Dupilumab
• Omalizumab
• Vismodegib/Sonidegib
• Future AK therapies
• Penetration enhancers that improve topical therapy

Drugs for Psoriasis and Psoriatic Arthritis

• ETANERCEPT
• ADAKLUMAB
• INFliximab
• CERTOZUMAB
• GOLIMUMAB
• USTEKINUMAB
• SECUKINUMAB
• IXEKIZUMAB
• APREMILAST
• METOTREXATE
• CYCLOSPORINE
• ACITRETIN
• BRODALUMAB
• GUSELKUMAB
• TILDRAZUMAB
• RISANKIZUMAB
• LY3074828

Dupilumab Phase 2b Study:
Mean Percent Change In EASI at Week 16 (LOCF)

* * *

P < 0.0001 vs placebo, Weeks 2 and 16

EASI: Eczema and Severity Index; LOCF: last observation carried forward; q2w: every 2 weeks; q4w: every 4 weeks.


Dupilumab SOLO 1 & 2: Proportion (%) of Patients with IGA 0 or 1 and ≥ 2-point Reduction From Baseline at week 16

* * *

P < 0.0001.
Dupilumab CHRONOS: Proportion (%) of Patients Achieving EASI-75 at Week 52

![Graph showing percentage of patients achieving EASI-75 at week 52 for different treatment groups.]

* p<0.0001

EASI: eczema area and severity index; q2w: every 2 weeks; qw: weekly; TCS: topical corticosteroid.

Source: Data on file

All doses of omalizumab significantly reduced mean weekly ISS vs placebo (primary endpoint)

![Graph showing mean change from baseline in weekly ISS at Wk 12 for different treatment groups.]

p = 0.0010
p = 0.0012
p<0.0001

Mean change from baseline in weekly ISS at Wk 12

Placebo
Omalizumab 75 mg
Omalizumab 150 mg
Omalizumab 300 mg

Inhibition of the hedgehog pathway in advanced basal-cell carcinoma.
Von Hoff DD et al.

- 33 patients – metastatic or advanced BCC
- GDC – 044a
  - 16 partial and 2 complete responses
- fatigue, hyponatremia, muscle spasm, afib

Randomized, double-blind study of sonidegib (LDE225) in patients with locally advanced or metastatic basal-cell carcinoma
J Clin Oncol 32:5s, 2014 (suppl; abstr 9009a")
MR Migden, et al

SONIDEGIB
Effect of intralesional alpha 2-interferon on actinic keratoses.


A randomized, controlled, molecular study of condylomata acuminate clearance during treatment with imiquimod.


The immune response modifier imiquimod requires STAT-1 for induction of interferon, interferon-stimulated genes, and interleukin-6.


Clinical effect of imiquimod 5% cream in the treatment of actinic keratosis.


Imiquimod 2.5% and 3.75% for the treatment of actinic keratoses: two phase 3, multicenter, randomized, double-blind, placebo-controlled studies.


Complete clearance is sustained for at least 12 months after treatment of actinic keratoses of the face or balding scalp via daily dosing with imiquimod 3.75% or 2.5% cream.


Placebo-controlled, double-blind, randomized pilot study of imiquimod 5% cream applied once per week for 6 months for the treatment of actinic keratoses.


Ingenol mebutate gel for actinic keratosis.

Ingenol Disoxate: A Novel 4-Isoxazolecarboxylate Ester of Ingenol with Improved Properties for Treatment of Actinic Keratosis and Other Non-Melanoma Skin Cancers.


Pre-treatment protoporphyrin IX concentration in actinic keratosis lesions may be a predictive biomarker of response to aminolevulinic-acid based photodynamic therapy.


Topical corticosteroid compounding: effects on physicochemical stability and skin penetration rate.

Dependence of corticosteroid penetration on the vehicle.

**DFD-01 HAD HIGHEST PENETRATION OF TOTAL BETAMETHASONES INTO THE EPIDERMIS AFTER 24 HOURS VERSUS OTHER COMMERCIAL FORMULATIONS.**

**REDUCTION IN TSS WITH DFD-01 WAS SIGNIFICANTLY GREATER THAN AUGBD AT DAY 4 AND VEHICLE AT ALL TIME POINTS**

ITT population; N values


In vitro skin penetration data for BDP

Penetration of BDP (in CBD ointment and LEO 90100) into skin at different time points.

Receptor fluid
Applied skin

In vitro skin penetration data for calcipotriol

Penetration of calcipotriol (in CBD ointment and LEO 90100) into skin at different time points.

Primary Efficacy Endpoint: Percentage of Patients Achieving Success in ISGA (Clear [0] or Almost Clear [1] with ≥2-Grade Improvement From Baseline)

Crisaborole Topical Ointment, 2%: Boron-Based, Nonsteroidal, Anti-Inflammatory PDE4 Inhibitor

Crisaborole Topical Ointment, 2%: A Nonsteroidal, Topical, Anti-Inflammatory Phosphodiesterase 4 Inhibitor in Clinical Development for the Treatment of Atopic Dermatitis.
