#### **Olsen Scale**

#### A double-blind, vehicle-controlled study evaluating masoprocol cream in the treatment of actinic keratoses on the head and neck

Elise A. Olsen, MD,<sup>a</sup> M. Lisa Abernethy, MD,<sup>a</sup> Carol Kulp-Shorten, MD,<sup>b</sup> Jeffrey P. Callen, MD,<sup>b</sup> Scott D. Glazer, MD,<sup>c</sup> Arthur Huntley, MD,<sup>d</sup> Michael McCray, MD,<sup>c</sup> Alicia B. Monroe, DO,<sup>f</sup> Eduardo Tschen, MD,<sup>f</sup> and John E. Wolf, Jr., MD<sup>g</sup> Durham, North Carolina; Louisville, Kentucky; Arlington Heights, Illinois; Sacramento and Palmdale, California; Albuquerque, New Mexico; and Houston, Texas

**Olsen Scale** 



# 'Classical' Histologic Grade

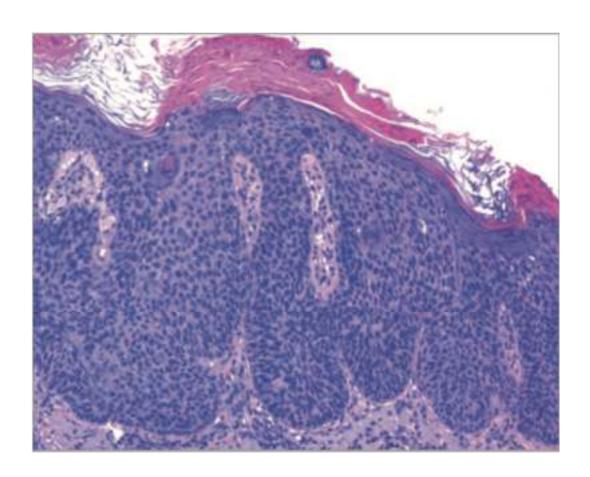
## Actinic keratosis is an early in situ squamous cell carcinoma: a proposal for reclassification

J. Röwert-Huber,\* M. J. Patel,\* T. Forschner,\* C. Ulrich,\* J. Eberle,† H. Kerl,\* W. Sterry,\* and E. Stockfleth\*

"Department of Demarkabley. Chank, Skin Contr. Charte Chants, University His-piel of Bolin, Berlin, Germany.

"Department of Demockage, University of Grey, Grey, Austria

'Classical' Histologic Grade



#### Model for AK Severity

**Hyperkeratotic lesions** 

= Greater epidermal involvement

= Highest risk for SCC

#### Predictive Value of Classical Grading?

#### ORIGINAL ARTICLE

# Actinic keratosis with atypical basal cells (AK I) is the most common lesion associated with invasive squamous cell carcinoma of the skin

M.T. Fernández-Figueras, 1.\* C. Carrato, 1 X. Sáenz, 1 L. Puig, 2 E. Musulen, 1 C. Ferrándiz, 3 A. Ariza 1

Department of Anatomic Pathology, Hospital Universitari Germans Trias i Pujol, Universitat Autònoma de Barcelona, Spain

<sup>&</sup>lt;sup>2</sup>Department of Dermatology, Hospital de la Santa Creu i Sant Pau, Universitat Autònoma de Barcelona, Barcelona, Spain

<sup>&</sup>lt;sup>3</sup>Department of Dermatology, Hospital Universitari Germans Trias i Pujol, Universitat Autònoma de Barcelona, Barcelona, Spain

<sup>\*</sup>Correspondence: M.T. Fernández-Figueras. E-mail: maiteffig@gmail.com

#### Clinical and histologic correlation?

#### ORIGINAL ARTICLE

# Actinic keratosis: correlation between clinical and histological classification systems

L. Schmitz, 1,2,\* P. Kahl, M. Majores, E. Bierhoff, E. Stockfleth, T. Dirschka2,4

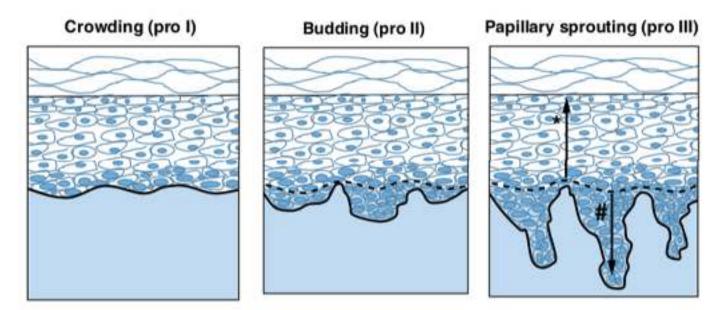
<sup>&</sup>lt;sup>1</sup>Department of Dermatology, Ruhr-University, Bochum, Germany

<sup>&</sup>lt;sup>2</sup>CentroDerm GmbH, Wuppertal, Germany

<sup>&</sup>lt;sup>3</sup>Heinz-Werner-Seifert-Institute of Dermatopathology, Bonn, Germany

<sup>&</sup>lt;sup>4</sup>Faculty of Health, University Witten-Herdecke, Witten, Germany

<sup>\*</sup>Correspondence: L. Schmitz. E-mail: I.schmitz@klinikum-bochum.de



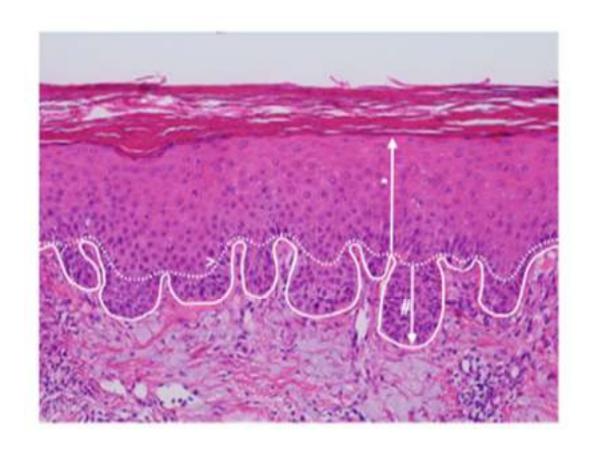
#### ORIGINAL ARTICLE

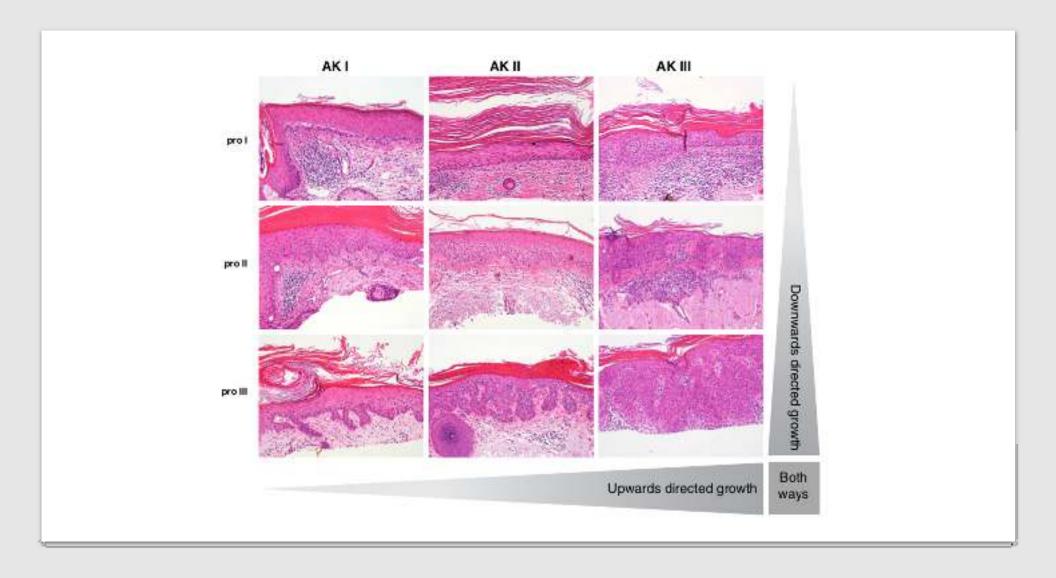
Actinic keratoses show variable histological basal growth patterns – a proposed classification adjustment

L. Schmitz, T. Gambichler, G. Gupta, J. M. Stücker, E. Stockfleth, R.M. Szeimies, T. Dirschka 5,6,4

# THE 'PRO' Classification system

## THE 'PRO' Classification system





#### THE 'PRO' Classification system

GENERAL DERMATOLOGY

BJD British Journal of Dermatology

#### Cutaneous squamous cell carcinomas are associated with basal proliferating actinic keratoses

L. Schmitz 6, T. Gambichler 6, C. Kost, G. Gupta, M. Stücker, E. Stockfleth and T. Dirschka 4,5

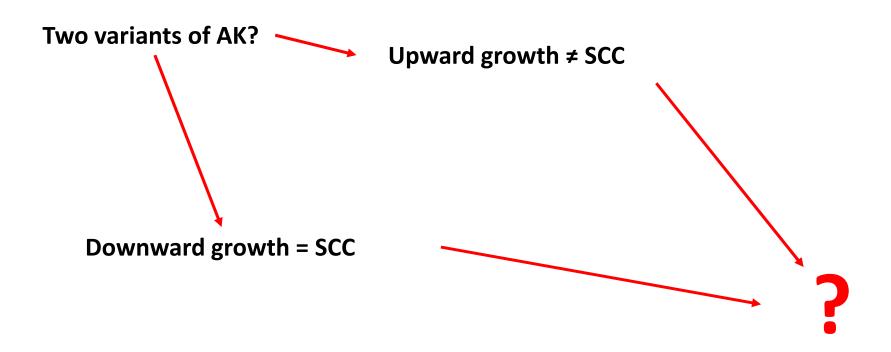
Adjacent epidermis:

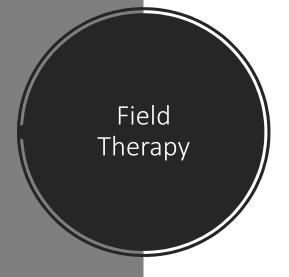
PRO I 25.7 PRO II 31.9% PRO III 39.4% AK I 52.4% AK II 38.1% AK III 6.8%

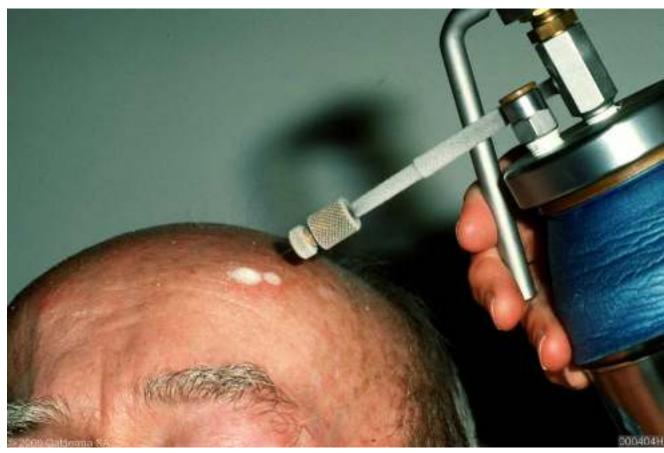
**Overlying epidermis:** 

AK I 34.2% AK II 31.1 AK III 34.7%

#### THE 'PRO' Classification system









Cosmetic

Symptomatic

Combined with Field Therapy



BJD British Journal of Dermatology

Cryosurgery combined with topical interventions for actinic keratosis: a systematic review and meta-analysis

M.V. Heppt (6), T. Steeb (6), T. Ruzicka and C. Berking (6)

Department of Demotology and Allergy, University Hospital, LMU Munich, Frauenlobstrale 9-11, 80337 Munich, Germany

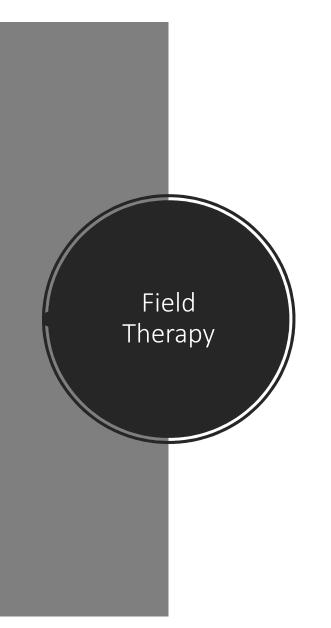


# Field Therapy

#### ORIGINAL ARTICLE

#### Randomized Trial of Four Treatment Approaches for Actinic Keratosis

Maud H.E. Jansen, M.D., Janneke P.H.M. Kessels, M.D., Ph.D.,
Patty J. Nelemans, M.D., Ph.D., Nina Kouloubis, M.D.,
Aimee H.M.M. Arits, M.D., Ph.D., Han P.A. van Pelt, M.D., Ph.D.,
Patricia J.F. Quaedvlieg, M.D., Ph.D., Brigitte A.B. Essers, Ph.D.,
Peter M. Steijlen, M.D., Ph.D., Nicole W.J. Kelleners-Smeets, M.D., Ph.D.,
and Klara Mosterd, M.D., Ph.D.



- 28.9% 3 days of 0.015% Ingenol Mebutate
- 37.7% One session MAL-cPDT
- 53.9% 5% Imiquimod 3x/wk for 4 weeks
- 74.7% 5% 5FU twice daily for 4 weeks

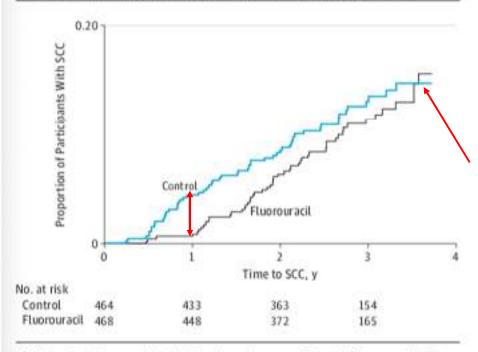


JAMA Dermatology | Original Investigation

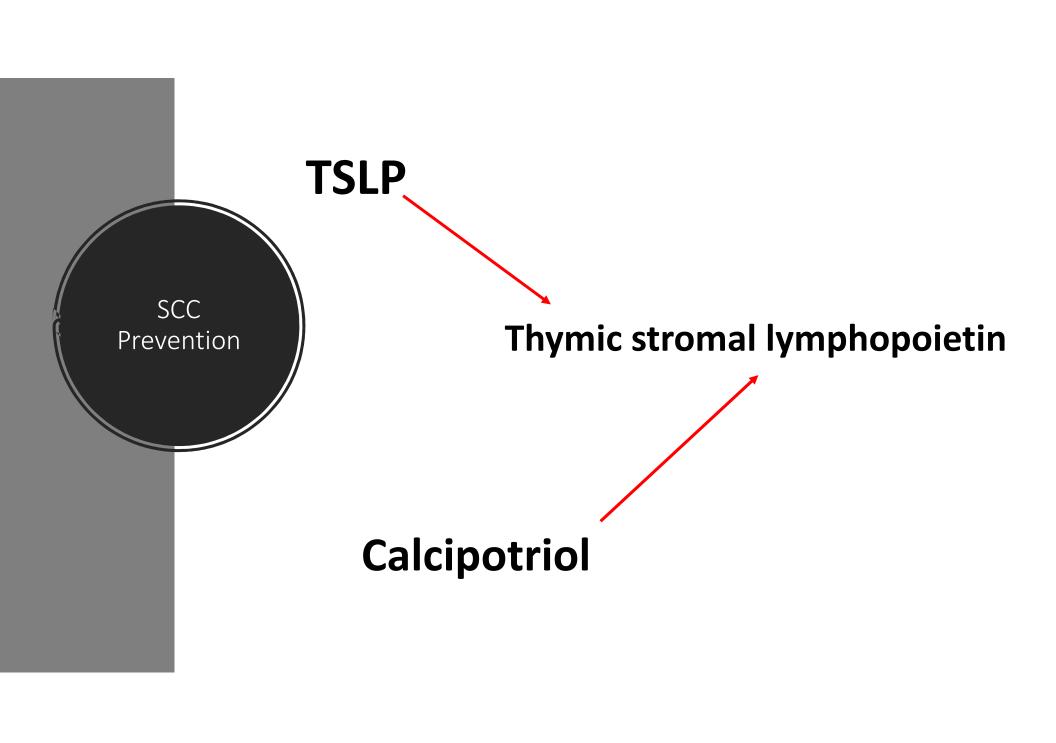
#### Chemoprevention of Basal and Squamous Cell Carcinoma With a Single Course of Fluorouracil, 5%, Cream A Randomized Clinical Trial

Martin A. Weinstock, MD, PhD; Soe Soe Thwin, PhD; Julia A. Siegel, MD; Kimberly Marcolivio, MEd; Alexander D. Means, MD; Nicholas F. Leader, MS, Fiona M. Shaw, MD; Daniel Hogan, MD; David Eilers, MD; Susan M. Swetter, MD; Suephy C. Chen, MD, MS; Sharon E. Jacob, MD; Erin M. Warshaw, MD, MS; George P. Stricklin, MD, PhD; Robert P. Dellavalle, MD, PhD, MSPH; Navjeet Sidhu-Malik, MD; Nellie Konnikov, MD; Victoria P. Werth, MD; Jonette E. Keri, MD, PhD; Leslie Robinson-Bostom, MD; Robert J. Ringer, PharmD; Robert A. Lew, PhD; Ryan Ferguson, ScD, MPH; John J. DiGiovanna, MD; Grant D, Huang, MPH, PhD; for the Veterans Affairs Keratinocyte Carcinoma Chemoprevention Trial (VAKCC) Group

Figure 2. Proportion of Participants With SCC by Treatment Group



Participants who completed a 2- to 4-week course of topical fluorouracil, 5%, applied twice daily to the face and ears reduced the risk of SCC requiring surgery at those sites by 75% for 1 year. No effect was seen over 4 years. SCC indicates squamous cell carcinoma.







#### Randomized trial of calcipotriol combined with 5-fluorouracil for skin cancer precursor immunotherapy

Trevor J. Cunningham, <sup>12</sup> Mary Tabacchi, <sup>2</sup> Jean-Pierre Eliane, <sup>5</sup> Sara Moradi Tuchayi, <sup>1</sup> Sindhu Manivasagam, <sup>2</sup> Hengameh Mirzaalian, <sup>4</sup> Ahu Turkoz, <sup>5</sup> Raphael Kopan, <sup>5</sup> Andras Schaffer, <sup>6</sup> Arturo P. Saavedra, <sup>1</sup> Michael Wallendorf, <sup>7</sup> Lynn A. Cornelius, <sup>2</sup> and Shadmehr Demehri<sup>1</sup>, <sup>2</sup>

87.8% vs 26.3% reduction in AK vs 5FU with Vaseline

27% vs 0% complete clearance



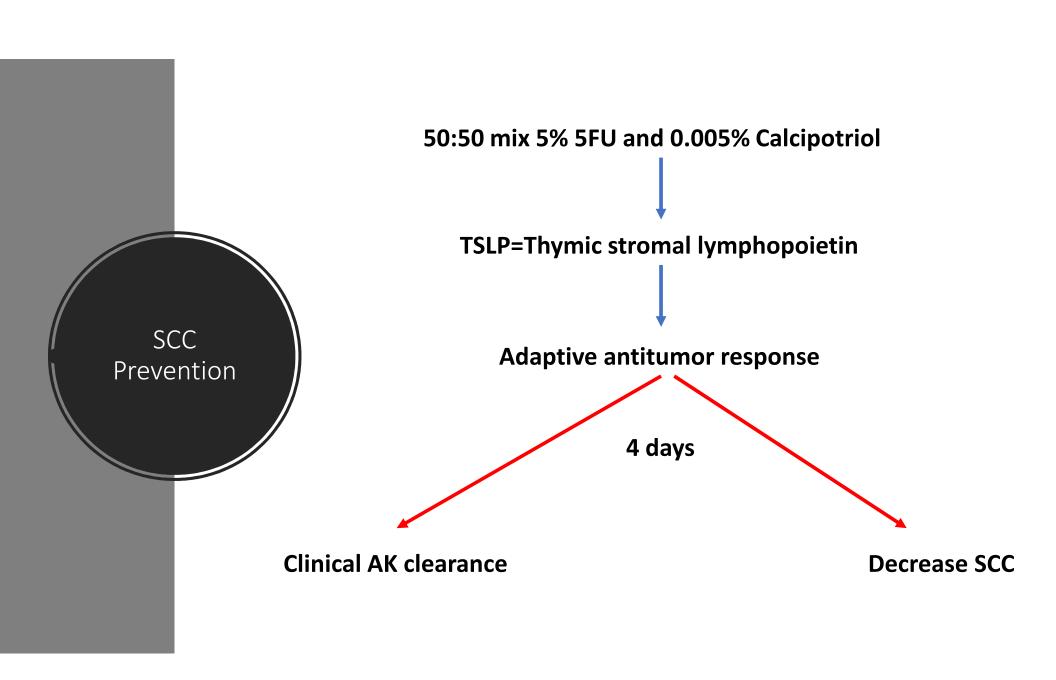
### Skin cancer precursor immunotherapy for squamous cell carcinoma prevention

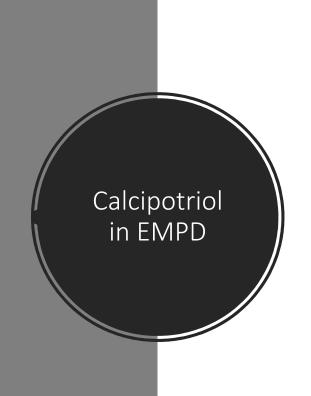
Abby R. Rosenberg, Mary Tabacchi, Kenneth H. Ngo, Michael Wallendorf, Ilana S. Rosman, Lynn A. Cornelius, and Shadmehr Demehri

First published March 21, 2019 - More info

2/30 vs 11/40 developed SCC

7% vs 28%





JAMA Dermatology | Brief Report

Topical Combination of Fluorouracil and Calcipotriene as a Palliative Therapy for Refractory Extramammary Paget Disease

Gabriel E. Molina, BA: Saami Khalifian, MD; Jamie L. Mull, MD; Lu Chen, MD; Ilana S. Rosman, MD; Beverly E. Faulkner-Jones, MD, PhD; Kenneth H. Ngo, BS; Shadmehr Demehri, MD, PhD; Lynn A. Connelius, MD: Peggy A. Wu, MD, MPH Calcipotriol Assisted PDT A randomized split-scalp study comparing calcipotriolassisted methyl aminolaevulinate photodynamic therapy (MAL-PDT) with conventional MAL-PDT for the treatment of actinic keratosis\*

L. Torezan , B. Grinblat, M. Haedersdal, N. Valente, C. Festa-Neto and R.M. Szeimies



### Five-Year Results of a Randomized Controlled Trial Comparing Effectiveness of Photodynamic Therapy, Topical Imiquimod, and Topical 5-Fluorouracil in Patients with Superficial Basal Cell Carcinoma

Maud H.E. Jansen<sup>1,2</sup>, Klara Mosterd<sup>1,2</sup>, Aimee H.M.M. Arits<sup>1,2,3</sup>, Marieke H. Roozeboom<sup>1,2</sup>, Anja Sommer<sup>4</sup>, Brigitte A.B. Essers<sup>5</sup>, Han P.A. van Pelt<sup>6</sup>, Patricia J.F. Quaedvlieg<sup>7</sup>, Peter M. Steijlen<sup>1,2,3</sup>, Patty J. Nelemans<sup>8,9</sup> and Nicole W.J. Kelleners-Smeets<sup>1,2,9</sup>

#### **Probability of tumor-free survival**

62.7% 2 single MAL sessions with 1 week interval

70.0% 5FU twice daily for 4 weeks

80.5% 5% imiquimod 5 days/week for 6 weeks





Resquimod

# Topical resiquimod dosing regimens in patients with multiple actinic keratoses: a multicentre, partly placebo-controlled, double-blind clinical trial

E. Stockfleth, G.F.L. Hofbauer, U. Reinhold, G. Popp, U.R. Hengge, R.M. Szeimies, H. Brüning, M. Anliker, T. Hunger, R. Dummer, C. Ulrich, R. Kenzelmann, C. Surber (62.32) and L.E. French

