

Comments on sequential Jessner's + 35% TCA peel for the treatment of facial field cancerization

Comentário sobre o peeling sequencial de Jessner + ATA 35% para o tratamento do campo cancerizável da face

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We have read the article by Melo *et al.*¹ with great interest, especially the observation that 78% of patients preferred the medium-depth peel, while only 22% preferred imiquimod. Notably, this study may have underestimated patients' preference for chemical peeling, since the FDA-approved, on-label application for imiquimod is a twice-weekly application for 16 weeks, resulting in a longer, more severe inflammatory reaction (which translates as the patient's experience of "downtime"), relative to the thrice-weekly application for 4 weeks under investigation in this study. A shortened regimen of imiquimod may impact its efficacy, and it is probable that with the on-label application for 16 weeks, a greater proportion of patients may have preferred the chemical peel.

A recent article by Jansen *et al.*² that omitted medium-depth chemical peeling as an option for field therapy showed that field treatment with 5% fluorouracil (5-FU) twice a day was superior to imiquimod three times a week, one treatment with photodynamic therapy, and 3 daily applications of 0.015% ingenol mebutate. In this trial, 5-FU was applied for 4 weeks (package insert recommends 2-4 weeks), and imiquimod was applied in the same off-label regimen used by Melo *et al.*¹: three times weekly for 4 weeks. In short, imiquimod may not be the most suitable comparator for field therapy of diffuse actinic keratosis.

Another split-face trial further showed that a single application of Jessner's solution plus 35% trichloroacetic acid had similar efficacy to that of a 3-week course of 5-FU at 12- and 32-months follow-up.^{3,4} In this study, patients also preferred chemical peeling due to its tolerability and comparatively short downtime.^{3,4}

Letter

Authors:

Carlos Gustavo Wambier¹
Kachiu Cecilia Lee²
Seaver Lee Soon³
J. Barton Sterling⁴
Peter Rullan⁵
Harold J. Brody⁶
Emily Catherine Keller⁷
Gary Monheit⁸

¹ Department of Dermatology, Warren Alpert Medical School, Brown University, Providence, RI, USA.

² Department of Dermatology, Temple University, Philadelphia, PA, USA.

³ The Skin Clinic MD, Surgical & Aesthetic Dermatology, San Diego, CA, USA.

⁴ Jersey Shore University Medical Center, Spring Lake, NJ, USA.

⁵ Department of Dermatology, University of California San Diego, San Diego, CA, USA.

⁶ Department of Dermatology, Emory University School of Medicine, Atlanta, GA, USA.

⁷ INDYDERM, Indianapolis, IN, USA.

⁸ Department of Dermatology, Department of Ophthalmology, University of Alabama; Total Skin & Beauty Dermatology Center, Birmingham, AL, USA.

Correspondence:

Carlos Gustavo Wambier
Brown Dermatology - South County Clinic
65 Village Square Dr Ste 201, South Kingstown, RI 02879-2292
carlos_wambier@brown.edu

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The International Peeling Society suggests standardized terminology: wounding agents mixed in the same formula are termed combination chemical peel, and wounding agents applied sequentially, for example, a superficial peel such as Jessner's solution followed by a second wounding agent like trichloroacetic acid (TCA) is termed sequential peel.⁵ Another medium-depth peel option for field cancerization is the Brody peel, a sequential peel in which solid CO₂ slush (a physical wounding agent) is followed by 35% TCA, with no systemic absorption of chemicals. This peel contrasts the sequential peels described by Monheit, in which Jessner's solution (a superficial peel) is followed by 35% TCA, and by Coleman, in which 70% glycolic acid (a superficial peel) is followed by 35% TCA. The Coleman peel does not seem to have any advantage over the Monheit or Brody peels, as glycolic acid requires neutralization or washing prior to application of 35% TCA.⁵ The Coleman peel can be a useful alternative for patients who are allergic to salicylic acid (a component of Jessner's solution), for extensive surface area appli-

cation of Jessner's solution, which may be a risk for salicylism, or in a clinical setting without access to solid CO₂.

Deep chemical peels based on phenol and croton oil might be even more effective in the treatment of field cancerization, given that the depth of penetration extends into the upper reticular dermis. As with any surgical procedure, supervised hands-on training is required for chemical peeling and can be obtained through post-graduate medical training or through specialty societies such as the International Peeling Society (peelingsociety.com).

"I have used my version of the Jessner's - 35% TCA for actinic keratosis and solar damage on many patients for both indications of failure of 5-FU and those patients not willing to put up with the 3 to 4 weeks of topical therapy. Results have been good with the advantage of cosmetic improvement they all appreciate. If they are willing to endure a week of healing, they will enjoy the results." - Gary D. Monheit, M.D.

REFERENCES

1. Melo CB de, Costa ALF da, Santos MM de S, Marcos G de CP. Comparison between 5% imiquimod cream and Jessner's solution with 35% trichloroacetic acid chemical peel in the treatment of the facial field cancerization. *Surg Cosmet Dermatol*. 2019;11(4):299-304.
2. Jansen MHE, Kessels JPHM, Nelemans PJ, Kouloubis N, Arits AHMM, van Pelt HPA, et al. Randomized Trial of Four Treatment Approaches for Actinic Keratosis. *N Engl J Med*. 2019;380(10):935-946.
3. Lawrence N, Cox SE, Cockerell CJ, Freeman RG, Cruz PD Jr. A comparison of the efficacy and safety of Jessner's solution and 35% trichloroacetic acid vs 5% fluorouracil in the treatment of widespread facial actinic keratoses. *Arch Dermatol*. 1995;131(2):176-181.
4. Witheiler DD, Lawrence N, Cox SE, Cruz C, Cockerell CJ, Freeman RG. Long-term efficacy and safety of Jessner's solution and 35% trichloroacetic acid vs 5% fluorouracil in the treatment of widespread facial actinic keratoses. *Dermatol Surg*. 1997;23(3):191-6.
5. Lee KC, Wambier CG, Soon SL, Sterling JB, Landau M, Rullan P, et al. Basic chemical peeling: Superficial and medium-depth peels. *J Am Acad Dermatol*. 2019;81(2):313-324.

AUTHORS' CONTRIBUTIONS::

Carlos Gustavo Wambier |  ORCID 0000-0002-4636-4489

Approval of the final version of the manuscript; study conception and planning; elaboration and writing of the manuscript; critical review of the literature; critical revision of the manuscript.

Kachiu Cecilia Lee |  ORCID 0000-0003-2107-8985

Approval of the final version of the manuscript; elaboration and writing of the manuscript; critical review of the literature; critical revision of the manuscript.

Seaver Lee Soon |  ORCID 0000-0002-4348-2367

Approval of the final version of the manuscript; elaboration and writing of the manuscript; critical review of the literature; critical revision of the manuscript.

J. Barton Sterling |  ORCID 0000-0002-1428-410X

Elaboration and writing of the manuscript; critical review of the literature; critical revision of the manuscript.

Peter Rullan |  ORCID 0000-0001-5150-4813

Elaboration and writing of the manuscript; critical revision of the manuscript.

Harold J. Brody |  ORCID 0000-0002-2584-9874

elaboration and writing of the manuscript; critical review of the literature; critical revision of the manuscript.

Emily Catherine Keller |  ORCID 0000-0002-5670-4133

Elaboration and writing of the manuscript; critical revision of the manuscript.

Gary Monheit |  ORCID 0000-0002-7062-5204

Elaboration and writing of the manuscript; critical revision of the manuscript.