Pain and Lesion Count in the Clinical Management of Actinic Keratosis in the Real-World Setting

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BACKGROUND

- Actinic keratosis (AK) is a skin condition where rough, scaly lesions occur on sun-exposed areas of the skin, particularly in the face, ears, neck, and hands.
- AK is considered a precancerous condition because of its potential to progress to squamous cell carcinoma if left untreated.[1]
- The overall prevalence of actinic keratosis (AK) is 14% globally with an incidence rate of 1.9 per 1,000 person-years.[2]
- However, the prevalence of AK varies by several factors, including age, skin tone, sun exposure, and geographical region.[2]
- Treatment strategy for AK is not uniform and may depend on several factors, including number of lesions, body location, lesion presentation, history of skin cancer, and history of other medical conditions.
- In some dermatology-specific electronic health record (EHR) systems, AK disease activity, as measured by lesion count and patient-reported pain, is routinely documented in a subset of patients.
- This routine documentation allows for assessment of the effects of AK disease activity on real-world treatment strategy in the management of disease.

OBJECTIVES

- To characterize the clinical management of AK in the real-world dermatology setting by disease activity as measured by the 0 to 10-point pain visual analogue scale (VAS) and the lesion count.

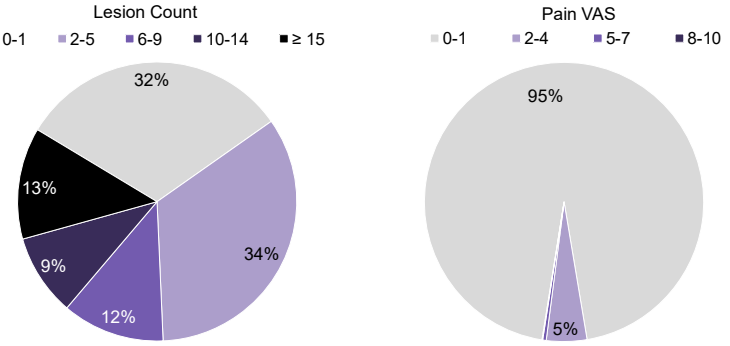
METHODS

- Outpatient EHRs (2017-2024) from 6 specialty dermatology networks in the OMNY Health real-world data platform were accessed.
- Patients with AK were selected if they had at least 1 lesion count or pain VAS measurement associated directly with AK.
- Prescription orders, administrations, and procedures were assessed at the same visits as the lesion count and/or pain VAS measurements.
- Demographic characteristics were summarized for each patient at their first documented visit associated with the lesion count or pain VAS measurement.
- Proportions of patient assessments by pain VAS or lesion count category were calculated for the following treatment strategies at the same encounter:
  - Topical agents (fluorouracil, diclofenac, imiquimod, and tirbanibulin)
  - Procedures (lesion destruction [laser surgery, electrosurgery, cryosurgery, chemosurgery, or surgical curettement], shaving, excision, chemical peel, and photodynamic therapy)

RESULTS

- A total of 334,410 AK patients with 704,665 pain VAS or lesion count assessments were included.
- Patient demographics were similar across clinical assessment categories: 45% female, 2% nonwhite, mean (standard deviation) age: 68 (12) years.
- Distribution of pain VAS and lesion count categories are presented in Figure 1:

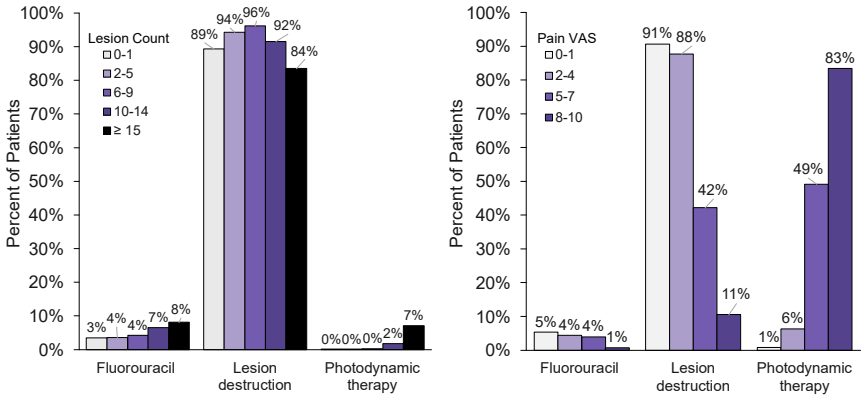
Figure 1: Lesion Count and Pain VAS Category Distributions



VAS = visual analogue scale
Note: Percentages were based on non-missing data.

- Approximately a third of encounters were associated with 0-1 lesions, a third with 2-5 lesions, and the remaining third with 6 or more lesions.
- The great majority of encounters were associated with minimal pain (pain VAS: 0-1).
- Percentages of patients with various treatment strategies by lesion count and pain VAS category are summarized in Figure 2:

Figure 2: Treatment Class Prescriptions and Phototherapy Procedure by Vitiligo VAS Category



- Fluorouracil prescriptions increased monotonically with increasing lesion count and decreased monotonically with increasing pain VAS.
- With increasing pain VAS, lesion destruction and photodynamic therapy increased.
- Proportions of encounters with lesion destruction and photodynamic therapy did not vary notably by lesion count.
- Other topical agent prescriptions and procedures were negligible.

DISCUSSION AND CONCLUSIONS

- Results provide insights into the roles of pain and lesion count in the management of AK patients in the real-world dermatology setting.
- Other variables to consider in future analyses are lesion location and history of skin cancer.
- Analyses of clinical notes may be beneficial to understand reasons behind different clinical management strategies.

REFERENCES

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