Skin Cancers in Patients with Actinic Keratoses

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INTRODUCTION

• Actinic keratoses (AKs) are premalignant skin lesions often diagnosed in older, Caucasian adults
• AKs are exceptionally common
• Individual AKs have a low risk of progression to SCC
• The overall skin cancer risk of AK patients is not well-studied

OBJECTIVE

To examine absolute and relative risks of skin cancer in patients with AKs to guide clinical care and form the foundation for future recommendations.

METHODS

• Retrospective cohort study of 4,999,999 de-identified Medicare beneficiaries (2009-2018)
• Inclusion Criteria:
  • AK cohort: AK diagnosis with treatment (cryotherapy, PDT, or medication)
  • SK cohort: SK diagnosis without history of AK diagnosis
• Exclusion criteria:
  • History of skin cancer
  • HIV/AIDS
  • Solid organ transplant
• Primary outcome: any surgically treated skin cancer
• Analysis:
  • Absolute risk of skin cancer in patients with AK using cumulative incidence curves
  • Relative risk of skin cancer in AK patients vs. SK patients using hazard ratios and competing risk regressions

RESULTS

• A total of 555,945 patients (53.61%) patients had AKs and 481,024 (46.39%) had SKs
• Patients had a mean follow-up of 5.63 (SD 2.75) years for patients with AKs and 4.55 (SD 2.74) years for patients with SKs
• Absolute risk of skin cancer after a first AK was:
  • 1-year: 6.30% (95% CI 6.27%-6.40%)
  • 2-year: 12.70% (95% CI 12.60%-12.79%)
  • 3-year: 18.40% (95% CI 18.25-18.47%)
  • 4-year: 23.60% (95% CI 23.48%-23.73%)
• Patients with AKs had a significantly increased risk for future skin cancer compared with patients with SKs (adjusted for age, race, gender, and UV index):
  • Hazard ratio: 2.17, 95% CI 2.15-2.19

CONCLUSION

• Patients with AKs are at significantly increased risk of skin cancer, with nearly 1 out of 4 having a skin cancer within 4 years
• Patients with AKs require heightened attention, and efforts to create guidelines for skin cancer surveillance for these patients is paramount