Keratoacanthoma Developing at the Site of Chemical Peel: A Rare Post-Procedure Complication

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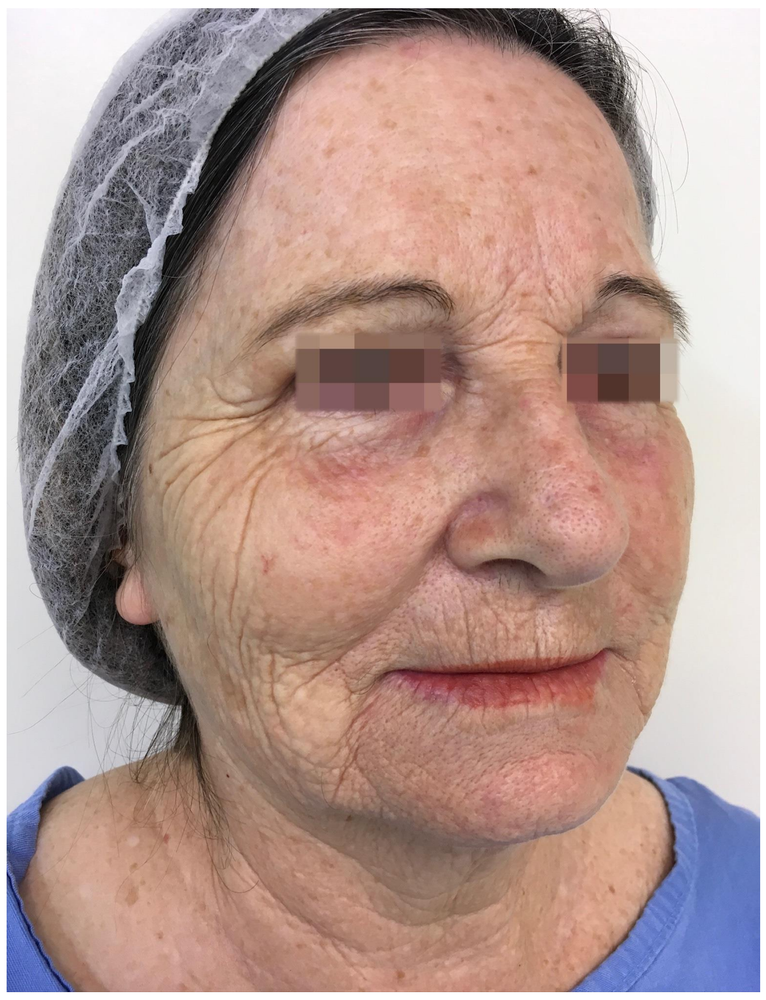
Background

- Trauma is a recognized trigger for keratoacanthoma (KA) formation.
- To our knowledge, only one prior report has described KA development after a chemical peel using a non-phenol formulation; this is the first reported case following a phenol–croton oil peel.

Clinical Presentation

65 year old woman with no significant medical history



Pre-procedure

Baker-Gordon phenol peel had been well tolerated without intraoperative or immediate postoperative complications, excellent re-epithelialization at 5 weeks

2 months post-procedure

Discussion

- Injury-induced inflammation in chronically sun-damaged skin has been hypothesized to transiently activate MAPK signaling pathways, favoring the development of a KA over cutaneous squamous cell carcinoma after short-lived inflammatory stimuli, analogous to the paradoxical KA eruptions observed with BRAF inhibitor therapy.
- KA development has also been reported after aesthetic interventions, particularly laser resurfacing, in patients with actinically damaged skin. Although less common, other cosmetic treatments involving epidermal injury, such as chemical peels, may create a similar proinflammatory milieu conducive to KA formation.

Clinical Pearl

Dermatologists should maintain a high index of suspicion when a rapidly enlarging papule develops within a recently treated area. Early biopsy or excision enables definitive diagnosis and timely management, minimizing morbidity while preserving aesthetic outcomes.

References

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