Facial Keratoacanthoma: Treatment Option Cost Analysis & Outcomes

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Background
Keratoacanthomas (KAs) are nodular cutaneous neoplasms commonly found on exposed surfaces of the head and neck. They may arise from keratinocytes in the epidermis, dermis, and subcutaneous tissues in a variety of locations producing unique clinical presentations and potential effects to the patient. KA’s are unique among cutaneous neoplasms in that they can regress spontaneously, distinguishing it from SCCs (Box 1-2 table). These characteristics make KA’s a unique therapeutic challenge. A variety of clinical and surgical therapies are available for the treatment of KAs. A review of the literature shows that wide local excision and Mohs micrographic surgery have comparable disease control rates with 4-8% and 2.4%, respectively. Intralesional therapies have also been shown to offer an effective treatment with a cosmetically acceptable outcome at a lower cost. When examining the cost difference for the various treatment options for treating KA’s there is an impressive disparity from one modality to another (Tables 2 & 3). The allocation of agents such as methotrexate and 5-FU is quite inexpensive (Table 2).

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Clinical stages of KA

1. Early Stage: Clinical presentation of a firm, symmetrical erythematous papule often with an umbilicated necrotic, keratin filled core (Figure 1a,b).
2. Nodule Stage: A berry-shaped erythematous umbilicated necrotic, keratin filled core takes up to 1 year. This is the most common stage for KA’s.
3. Regression Stage: Necrotic nodule; expulsion of the central keratin core gives the impression of spontaneous regression (Figure 2).
4. Regressed Stage: Regressed KA has minimal or no clinical stigmata of a KA and is indistinguishable from a normal skin surface.

Results

Objectives
1. Describe the clinical presentation and address the controversial nosology of keratoacanthomas (KAs).
2. Performance of a cost analysis of the most common treatment options for KA’s.
3. Briefly review surgical and medical treatment modalities used to treat KA’s and their respective outcomes.

Methods
A single patient case report with a multinational and multidisciplinary review of the available literature was performed. A retrospective chart review of inpatient and outpatient medical records was performed at SIU’s ENT clinic from 2000–2010. Only cases with diagnosis of KA were included. The chart was reviewed for clinical presentation, diagnosis, and treatment options. The therapeutic options for solitary KA were performed with a comparative cost analysis for each modality. The department of Otolaryngology at SIU was responsible for the treatment of KA’s.

Case Report
A 45 year-old healthy Caucasian male with a history of chronic sun exposure presented to the otolaryngology department with a nasal lesion located on the left side of the nasal center. Physical examination revealed an erythematous, firm, centrally umbilicated nodule of the nasal septum. The lesion was located on the nasal septum near the tip of the nose. The patient did not return for follow-up after the flap was removed.

References
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