Focus on Sciences **Case Report**

May 2017, Volume 3, Issue 2

Multiple Keratoacanthoma Responsive to Acitretin in an Old Man with Depressed Mood

Mohammad Ebrahimzadeh Ardakani [1], Fariba Binesh [2], Narges Ghanei [1,*], Mojtaba Babaei Zarch [3]

[1] *Department of Dermatology, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

[2] *Department of Pathology, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

[3] *Student Research Committee, Shahid Sadoughi University of Medical Sciences, Yazd, Iran*

** Corresponding author: Narges Ghanei. Department of Dermatology. Shahid Sadoughi University of Medical Sciences, Yazd, Iran. Tel: +989368006579, Fax: 03536229202, E- mail: Nargesgh73@yahoo.com*

DOI: 10.21859/focsci-03021418

Submitted: 12.24.2016

Accepted: 03.22.2017

Keywords:
Keratoacanthoma
Neoplasm
Acitretin

© 2017. Focus on Sciences

Abstract

Introduction: Keratoacanthoma (KA) is a common neoplasm and one of variety squamous cell carcinoma (SCC) characterized by rapid growth with potential for tissue damage.

Case Presentation: A 64-year-old man presented with hyperkeratotic papules that initially appeared on the dorsum of his hand and slowly progressed to form a large annular plaque along with multiple small keratotic plaques and papules. He was depressed and worried about the appearance and lesions. He had a history of multiple surgery on the lesions that had recurrence and finally the surgeon decided to do extensive excision with flap that had recurrence on the donor and recipient site, too. Treatment with Acitretin was started. Evolution of new lesions had decreased and stable lesions had begun to regress.

Conclusions: Although the gold standard for the treatment of keratoacanthoma is surgical excision, oral retinoid can be a good choice for multiple recurrent keratoacanthoma.

INTRODUCTION

Keratoacanthoma (KA) is a cutaneous neoplasm characterized by rapid growth [1]. The exact incidence of KA is probably underestimated [2]. It is assumed that KA originates from hair follicle [3, 4]. Multiple KA is a rare entity and can be familial or sporadic [2]. Many options are available to treat keratoacanthoma. The recommended option for the majority of cases is excisional surgery. However, it may be associated with several complications including cosmetic and functional problems [1]. The first-line treatment for variants of multiple KA is systemic acitretin or other retinoids [5, 6]. Herein, we report a case of multiple KA who treated by Acitretin and responded well to the drug.

CASE REPORT

A 64-year-old man presented with hyperkeratotic papules that initially appeared on the dorsum of his hand and slowly progressed to form a large annular plaque along with multiple small keratotic plaques and papules. He was depressed and worried about the appearance and his lesions. He had multiple surgery on the lesions that had recurrence and finally the surgeon decided to perform an extensive excision with flap that had recurrence on the donor and recipient site too. Cutaneous examination showed multiple annular, hyperkeratotic plaque on the leg and hands (Fig 1).

Tissue periodic acid-Schiff (PAS) and Fite stains were negative for concomitant microorganisms. Histological examination of a punch biopsy performed on a papulokeratotic border showed an exoendophytic lesion with an invaginating mass of keratinizing, well-differentiated squamous epithelium at the sides and bottom of the lesion. There was a central keratin-filled crater. The component cells had a distinctive eosinophilia due to their cytoplasm and epithelial atypia and mitoses were not seen (Fig 2).

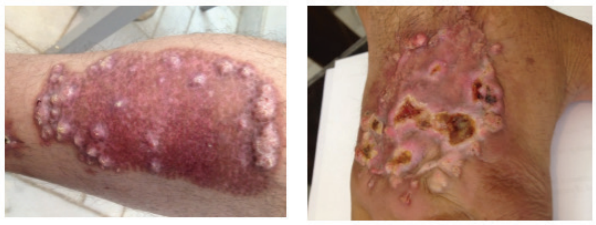

Figure 1: Multiple Hyperkeratotic Papules and Crateriform Nodules on the Graft Site

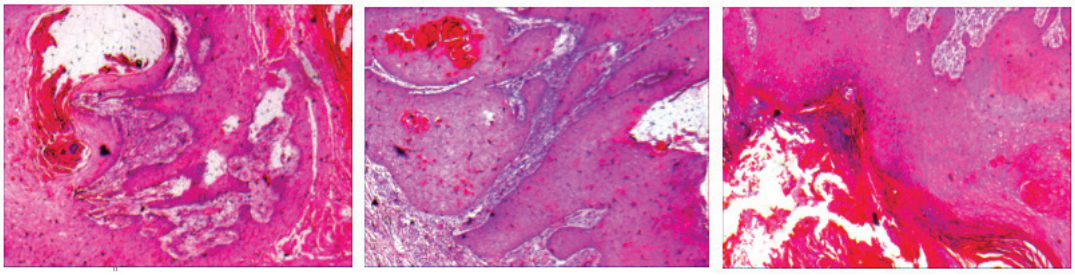

Figure 2: Histologic Section of Lesions on the Hands

After correlation of clinical and histopathological findings, the diagnosis of keratoacanthoma was made. Treatment with oral 25 mg/d of Etretinate was started. After 30 days, the effect was obvious: evolution of new lesions had decreased and stable lesions had begun to regress. This dose was continued for 4 months. The lesions became smaller and flattened, and some of them completely disappeared without scars (Fig 3).

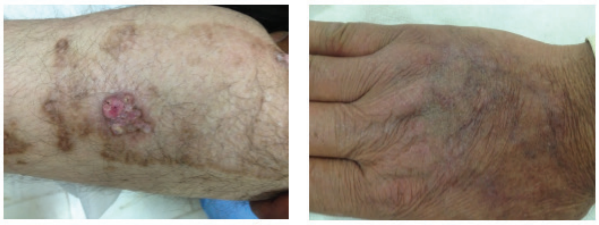

Figure 3: The Disappearance of the Lesions after Acitretine Therapy

DISCUSSION

Keratoacanthoma (KA) is a common neoplasm characterized by rapid growth with potential for tissue destruction and in most cases spontaneous regression. There are two types including simple multiple types. Multiple KAs are quite rare. Multiple types have been reported in the context of rare condition such as Gzybowski eruption keratoacanthoma, KAs of Ferguson Smith type and multiple persistent KAs. The tendency toward spontaneous regression suggests a benign course, but it may rarely metastasize [3]. Solitary KA has three distinct stages: proliferation, maturation, and spontaneous involution [7]. Although the exact etiology is unknown, sun exposure, mechanical trauma, ionizing radiations, chemical carcinogens, infections by human papilloma virus, genetic and immunological, immunosuppressive therapy and chronic inflammation related to some dermatologic disorders such as hypertrophic lichen planus or psoriasis has been suggested to play an etiological role [8-10]. Several reports describe reactive KAs developing after dermatologic surgery, including mohs surgery, laser resurfacing, radiation therapy, and skin grafting [11-13]. The treatment of choice for solitary type of KA is surgical excision with histopathological verification of the diagnosis., several other therapeutic options such as intraregional injections of interferon alpha, Methotrexate or Bleomycin [14], topical 5-fluorouracil (5-FU) [15], superficial x-ray therapy [16] and systemic retinoid [17] have been reported to be effective, if surgery is not possible. Herein, we presented a new case of multiple KA with no signs of spontaneous regression along with multiple recurrence after surgery that was responsive to Acitretin.

CONCLUSIONS

Although the gold standard for the treatment of keratoacanthoma is surgical excision, oral retinoid can be a good choice for multiple recurrent keratoacanthoma.

ACKNOWLEGDEMENTS

The authors thank the patient for cooperation.

CONFLICTS OF INTEREST

There is no conflict of interest.

FUNDING

Not Applicable.

AUTHORS' CONTRIBUTION

Mohammad Ebrahimzadeh Ardakani and Narges Ghanei visited the patient and collected data and wrote primary draft, Fariba Binesh presented the pathology report and Mojtaba Babaei Zarch wrote primary draft, revised and submitted it.

REFERENCES

1. Rambhia SH, Rambhia KD, Gulati A. A rare case of multiple keratoacanthomas treated with oral acitretin and intralesional methotrexate. Indian Dermatol Online J. 2016;7(4):321-3. DOI: 10.4103/2229-5178.185480 PMID: 27559516
2. Kwiek B, Schwartz RA. Keratoacanthoma (KA): An update and review. J Am Acad Dermatol. 2016;74(6):1220-33. DOI: 10.1016/j.jaad.2015.11.033 PMID: 26853179
3. Schwartz RA. Keratoacanthoma: a clinico-pathologic enigma. Dermatol Surg. 2004;30(2 Pt 2):326-33; discussion 33. PMID: 14871228
4. Schwartz RA. Keratoacanthoma. J Am Acad Dermatol. 1994;30(1):1-19; quiz 20-2. PMID: 8277007
5. Ka_Zmierowski M, Bowszyc-Dmochowska M. Multiple keratoacanthomas treated with cryosurgery and retinoids. Postepy Dermatol. 1997;14:397-402.
6. Street ML, White JW, Jr., Gibson LE. Multiple keratoacanthomas treated with oral retinoids. J Am Acad Dermatol. 1990;23(5 Pt 1):862-6. PMID: 2254471
7. Karaa A, Khachemoune A. Keratoacanthoma: a tumor in search of a classification. Int J Dermatol. 2007;46(7):671-8. DOI: 10.1111/j.1365-4632.2007.03260.x PMID: 17614793
8. Lain EL, Markus RF. Early and explosive development of nodular basal cell carcinoma and multiple keratoacanthomas in psoriasis patients treated with cyclosporine. J Drugs Dermatol. 2004;3(6):680-2. PMID: 15624753
9. Allen JV, Callen JP. Keratoacanthomas arising in hypertrophic lichen planus. A case report. Arch Dermatol. 1981;117(8):519-21. PMID:

7259250
10. Paul MA, Stonecipher MR, Abernethy J, Leshin B, White WL, Jorizzo JL. Multiple keratoacanthomas in hypertrophic lichen planus: treatment with systemic retinoids (etretinate). J Eur Acad Dermatol Venereol. 1994;3(3):320-5. DOI: 10.1111/j.1468-3083.1994.tb00369.x
11. Goldberg LH, Silapunt S, Beyrau KK, Peterson SR, Friedman PM, Alam M. Keratoacanthoma as a postoperative complication of skin cancer excision. J Am Acad Dermatol. 2004;50(5):753-8. DOI: 10.1016/j.jaad.2003.11.065 PMID: 15097960
12. Hadley JC, Tristani-Firouzi P, Florell SF, Bowen GM, Hadley ML. Case series of multiple recurrent reactive keratoacanthomas developing at surgical margins. Dermatol Surg. 2009;35(12):2019-24. DOI: 10.1111/j.1524-4725.2009.01327.x PMID: 19758354
13. Chesnut GT, Maggio KL, Turiansky GW. Letter: Re: Case series of multiple recurrent reactive keratoacanthomas developing at surgical margins. Dermatol Surg. 2011;37(6):884-5. DOI: 10.1111/j.1524-4725.2011.01962.x PMID: 21492306
14. de la Torre C, Losada A, Cruces MJ. Keratoacanthoma centrifugum marginatum: treatment with intralesional bleomycin. J Am Acad Dermatol. 1997;37(6):1010-1. PMID: 9418780
15. Yuge S, Godoy DA, Melo MC, Sousa DS, Soares CT. Keratoacanthoma centrifugum marginatum: response to topical 5-fluorouracil. J Am Acad Dermatol. 2006;54(5 Suppl):S218-9. DOI: 10.1016/j.jaad.2005.07.023 PMID: 16631944
16. Bruscino N, Corradini D, Campolmi P, Massi D, Palleschi GM. Superficial radiotherapy for multiple keratoacanthomas. Dermatol Ther. 2014;27(3):163-7. PMID: 25032245
17. Aydin F, Senturk N, Sabanciler E, Canturk MT, Turanli AY. A case of Ferguson-Smith type multiple keratoacanthomas associated with keratoacanthoma centrifugum marginatum: response to oral acitretin. Clin Exp Dermatol. 2007;32(6):683-6. DOI: 10.1111/j.1365-2230.2007.02498.x PMID: 17714527