Oral Science International xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Oral Science International

journal homepage: www.elsevier.com/locate/osi

Case Report

A case report of free forearm dermal flap reconstruction in a patient with tongue cancer and psoriasis vulgaris

Yuudai Kondo*, Aya Izumi, Koji Yamamoto, Takeshi Kaneuji, Yuusaku Suehiro, Yoshihiro Yamashita

Division of Oral and Maxillofacial Surgery, Medicine of Sensory and Motor Organs, University of Miyazaki, Miyazaki, Japan

ARTICLE INFO

Article history:
Received 4 April 2017
Received in revised form 5 July 2017
Accepted 15 August 2017
Available online xxx

Keywords:
oral squamous cell carcinoma
reconstruction
psoriasis vulgaris
pull-through

ABSTRACT

Dermal flap reconstruction in the oral cavity in a patient complicated with psoriasis vulgaris has not been described yet. Here, we report the case of a 33-year-old man with untreated psoriasis vulgaris who was diagnosed with right tongue SCC (T4aN0M0). Surgery is our preferred approach in such cases, and flap reconstruction was deemed necessary after resection. Because of psoriasis vulgaris, the donor site exhibited erythema, rash, and scaling. Surgery comprising forearm dermal flap reconstruction following palliation of cutis symptoms was performed. Currently, 2 years after surgery, there have been no symptoms of psoriasis vulgaris in the oral cavity and no tumor recurrence.

1. Introduction

Psoriasis vulgaris is a common disease in dermatology that develops because of environmental factors and genetic predisposition [1,2]. The incidence of psoriasis vulgaris is 0.02–0.04% in Japan and has been increasing [3]. Psoriasis vulgaris is characterized by systemic erythema with silvery-white scales and is treated with external and internal drug treatment and ultraviolet therapy [4]. Relationships of psoriasis vulgaris with malignant tumors have been reported: dermal malignant tumors are induced by radial chemotherapy for psoriasis [5,6], and infection is worsened by the cytokines produced by malignant tumors [4,7–10]. Intraoral reconstruction using free flaps from patients with psoriasis vulgaris has not been described. Herein, we report a case of lingual cancer complicated with psoriasis vulgaris, in which treatment included lingual reconstruction using free forearm flaps.

2. Case

The patient was a 33-year-old man who first visited our hospital in July 2014 with a chief complaint of lingual tumor. His history included uveitis, psoriasis vulgaris since 2008, and arthropathic psoriasis since 2009. He had been treated with an internal immunosuppressant at a local general hospital, but the diseases had proven to be intractable. He revisited the same hospital in June 2014 because of aggravation of psoriasis vulgaris. His family history included gastric cancer (grandfather); hypertension and diabetes (grandmother); and myocardial infarction (father). He had smoked 20 cigarettes/day for 10 years and did not drink alcohol.

At his first visit, the patient had experienced subjective symptoms of lingual tumor for 1 year. He had been diagnosed with lingual tumor at the local hospital and was introduced to the dental and oral departments in our hospital. After imaging and biopsy of the lingual tumor, he was diagnosed with squamous cancer and introduced to our department for treatment. His symptoms at the time of diagnosis included systemic findings of large erythema with scales over a wide area of the four limbs and trunk and partial desquamation (Fig. 1a,b). Systemic arthralgia induced by polyarthritis was causing difficulty with cervical rotation.

In intraoral findings, a tumor of 21 × 15 mm was present from the right lingual margin to the sublingual region, with peripheral indurations of 68 and 36 mm in the mesiodistal and side directions, respectively. The first and second molars on the lower right were in contact with the lingual tumor (Fig. 2). Blood tests showed elevated serum MMP-3 (787 ng/ml, normal: 36.9–121 ng/ml) and CRP (4.05 mg/dl).

MRI showed a tumoral lesion with an irregular surface on the right lingual marginal dorsum, with an irregular margin and unclear boundary. The internal region of the tumor had a slightly low signal

* Corresponding author at: Division of Oral and Maxillofacial Surgery, University of Miyazaki, Miyazaki, 5200 Kihara, Kiyotake, Miyazaki 889-1692, Japan. Fax: +81 9 8585 9385.
E-mail address: ykonn1218@med.miyazaki-u.ac.jp (Y. Kondo).

http://dx.doi.org/10.1016/S1348-8643(17)30040-X
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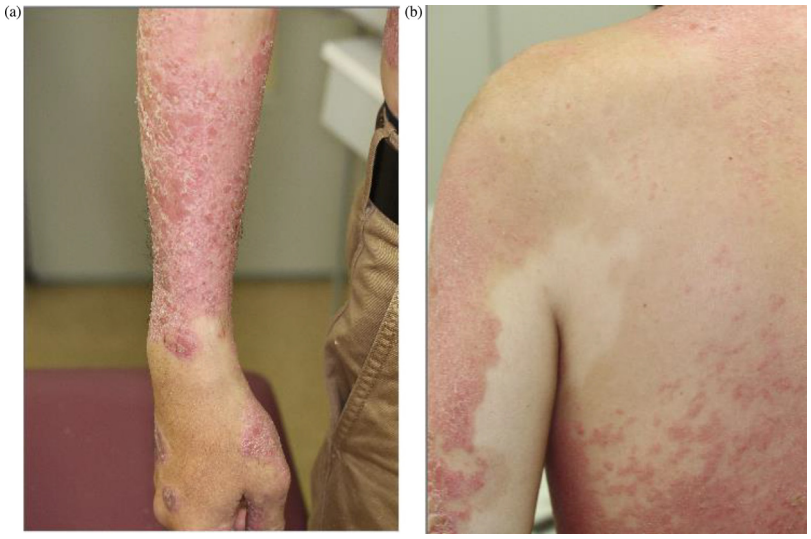

Fig. 1. Extraoral photo. Erythema and scales are observed in a wide range of the four limbs (a) and trunk (b).

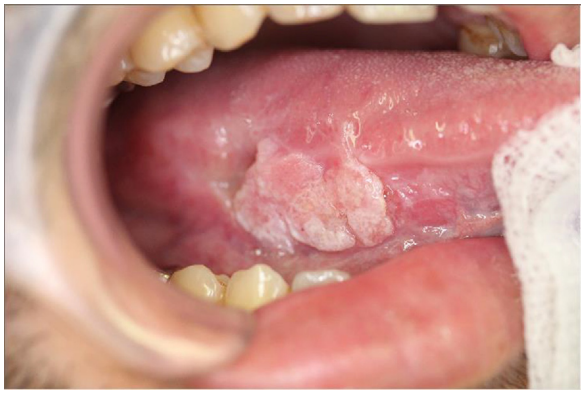

Fig. 2. Intraoral photo. A tumor is recognized from the right lingual margin to the sublingual region.

on T1-weighted imaging and a slightly high signal on T2-weighted imaging, with enhancement after imaging (Fig. 3a,b). The tumor had spread to the peripheral lingual septum in the lingual dorsal direction and to the rear lingual root. Invasion into styloid lingual muscles was also found. Numerous cervical lymph nodes were within the imaging range, but none showed significant swelling.

CT of lesional parts of the tongue was difficult because of a metal artifact. No metastasis in cervical lymph nodes and no swelling of lymph nodes were found (Fig. 4). In ultrasound, no lymph nodes in the right cervical region from I to IV showed significant swelling, and all had interior homogeneity.

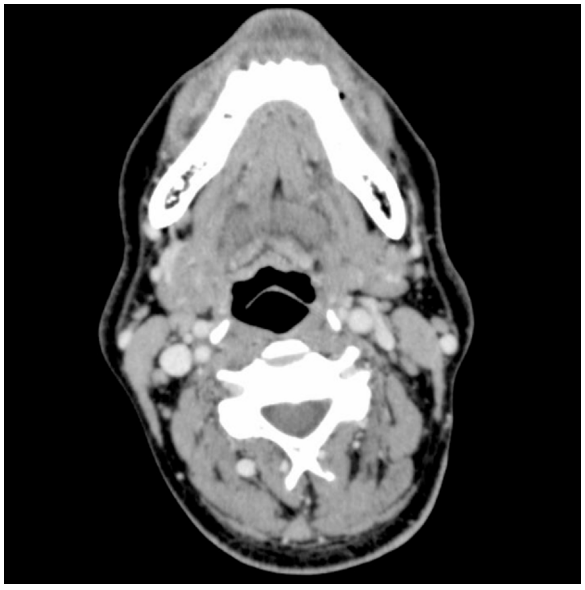

Fig. 4. CT image. Lymph nodes with suspected metastasis to the cervical region were not observed with contrast CT.

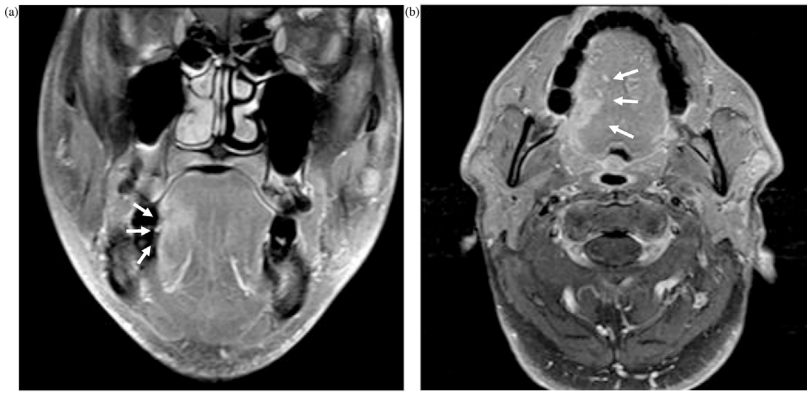

Fig. 3. MR image. Mildly high signal is admitted in T2-weighted image. Post-contrast enhancement effect was also seen. Coronation (a), cross section (b).

Please cite this article in press as: Kondo Y, et al. A case report of free forearm dermal flap reconstruction in a patient with tongue cancer and psoriasis vulgaris. Oral Sci Int (2017), http://dx.doi.org/10.1016/S1348-8643(17)30040-X