A Case of Large Erythroplakia with Moderate Epithelial Dysplasia Occurring on Intraoral Mucosa

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Erythroplakia is a very rare lesion of the oral cavity. We report here a large erythroplakia with histologically moderate epithelial dysplasia, occurring on the oral mucosa, of a 56-year-old woman.

Key words: erythroplakia, moderate epithelial dysplasia

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Introduction
There have been reports of erythroplakia with severe epithelial dysplasia and carcinoma in situ (1-6). However, erythroplakia with mild or moderate epithelial dysplasia is extremely rare (1, 2, 4). The present case shows moderate dysplastic change and unique clinical characteristics.

Case Report
A 56-year-old woman was referred to Maxillofacial Surgery, Graduate School, Tokyo Medical and Dental University on July 3rd, 1998, complaining of a red patch on her right inner cheek and lower gums. The patient had been aware of the red patch for about 8 years; however, she had not sought treatment because the lesion was painless. No relevant medical history was elicited, and the patient had no habit of smoking and drinking. Intraoral examination showed a 120 × 25mm red patch on the right buccal mucosa, extending to the gingival mucosa of the mandible (from the right mandibular first molar to the left mandibular second premolar). The lesion was quite sharply demarcated from the surrounding pink mucosa, and its surface was smooth and regular in coloration (Figs. 1A, 1B). The lesion was soft and there was no surrounding induration. There also was no ulceration or erosion of the oral mucosa. An oral prophylaxis was performed and Candida albicans was not isolated in the oral cavity. A clinical diagnosis of erythroplakia was made.

To establish a definitive diagnosis, a biopsy was performed using local anesthesia on July 17, 1998. The biopsy specimen, taken from the lesion on the right buccal mucosa, was diagnosed as erythroplakia. Follow-up
has continued and the biopsy scar is small. The red patch did not decrease in size after removal of local irritation and inflammatory causes, and there was no evidence of clinical change. Resection of the red patch on the right buccal mucosa and gingival mucosa of the mandible with about 5 mm margins and the extraction of the mandibular right second premolar and first molar were performed. Artificial skin was used to cover the wound of the gingival mucosa, gauze with antibiotic was applied to the skin, and a plastic bite plate was fitted on October 6, 1998.

Histologically, the surface keratinization layer was thin and epithelial atrophy was noted. The moderate dysplastic changes were shown at the epithelial layer. Also, infiltration of lymphocytes and capillary distensions were seen under the epithelial layer. The number of atypical cells was small, and karyomitosia was not striking. These histological changes were shown in all parts of the lesion, and erosive changes were histologically shown at the right buccal mucosa and the gingival mucosa of the right mandible (Figs. 2A, 2B). The margins were lesion-free.

Clinical examination 3 years after surgery revealed no evidence of recurrence.

Discussion

Erythroplakia is the leukoplakia-like term used to describe clinically red and well-demarcated macules of the oral mucosa which cannot be attributed to traumatic or inflammatory factors, and which have a much higher propensity for progression to carcinoma than leukoplakia. Previous studies have reported lesions measuring less than 5.5 cm (2, 4), and a few cases have occurred on extensive areas of the mouth (2). The present case is a large erythroplakia. The lesion, measuring 120 × 25 mm, occurred on the right buccal mucosa extending to the gingival mucosa from the right mandibular first molar to the left mandibular second premolar. We believe that this represents one of the largest reported cases of erythroplakia of the oral mucosa.

The histopathologic features of erythroplakia include marked epithelial atrophy associated with epithelial dysplasia. A relative reduction in keratin production and a relative increase in vascularity accounts for the clinical color of the lesion (1, 6). In the present case, the surface keratinization layer was thin and epithelial atrophy was noted. Cellular infiltration and capillary distension were remarkable at the epithelial layer, similar to the findings of previous studies (1, 4, 5). Thus, both of clinical and histopathologic features support a diagnosis of erythroplakia.
Previous studies reported that many cases of erythroplakia often exhibits histologically severe epithelial dysplasia, carcinoma in situ, or invasive squamous cell carcinoma, but that erythroplakia with mild or moderate epithelial dysplasia is extremely rare (1, 2, 4). In the present case, the number of atypical cells was small and karyomitis was sight, so that histologically the epithelial dysplasia was moderate.

References

(Accepted for publication January 21, 2002)