

An unusual oral squamous cell carcinoma of the mandible, mimicked inflammatory hyperplastic lesions: A case report

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Abstract

Squamous cell carcinoma (SCC) is the most common malignant tumors of oral cavity. The ratio of men to women is about 2: 1. Generally, it is admitted that 60% of carcinoma of the mandibular gingival are located in the posterior of premolars. Gingiva is one of the less common sites of oral squamous cell carcinoma (OSCC). Due to the variable clinical and behavioral presentations, it can easily be misdiagnosed as benign neoplasms or other inflammatory reactions. We encountered a 76-year-old woman with an unusual OSCC on the anterior mandibular ridge, imitating inflammatory hyperplastic (IH) lesion in May 2013. She complained that her denture was not seated suitably because of a mandibular lesion. After biopsy of the lesion, the surgeon noticed that real bone resorption was not visible in the x-ray image. Then histopathological evaluation detected the OSCC. Patient was referred to the CT-Scan and MRI. Three months later, the lesion recurred, enlarged and extended rapidly and she was emphasized the importance of a secondary surgery in a timely fashion.. She did not accept and then underwent radiotherapy and chemotherapy. In November 2013, the

patient passed away because of the progress of OSCC. This case reminded us to keep the possibility of oral SCC in mind while examining every intra-oral lesion.

Key Words: oral, SCC, hyperplastic lesion

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Introduction

Squamous cell carcinoma(SCC) is the most common malignant tumors of oral cavity. More than 90% of oral malignancies are attributed to SCC (1-5). Per annum incidence and mortality rates vary considerably between different races, genders and age groups. Squamous cell carcinoma is one of the ten most common cause of death. This ratio in men to women is about 2 to 1 (1,4)

.As with many carcinomas, the risk of intra-oral cancer increases with aging especially for males. More prevalent areas for oral cancers include the tongue, oropharynx and floor of the mouth. These regions are less keratinized and more susceptible to carcinomas(1,5,6). Generally it is admitted that 60% of the carcinoma of the mandibular gingiva are located posterior of the jaws(7). Clinical presentations of SCC can be quite miscellaneous, such as area ulcerations or as leukoplakic and erythroplakic, granular or verruciform growth, all indicating apparent changes in the surface, so they can simply be misdiagnosed as benign neoplasms or inflammatory reactions due to variable appearances(2,6,8,9). Many of early carcinomas are asymptomatic. There is no or minimal pain during early growth phase until late in the course of the disease and this may explain the delay in seeking professional care. Oral SCC spreads by local infiltration or metastasis to regional lymph nodes but distant metastasis is rare and maxillary lesions have a greater tendency to metastasize (5,6).

We encountered a female with an unusual SCC on the anterior mandibular ridge mimicked inflammatory hyperplastic lesion.

Case report

A 76-year-old female patient was admitted to the Department of oral medicine in Babol university of medical science in May 2013, with the chief complaint of a lesion in the anterior of mandible which did not allow seating her complete denture. According to the patient description, 2 years earlier, one lesion similar to the current lesion, in the same area, was appeared and then removed without any treatment. That time, the patient had normal dentition. From one year ago, patient have had complete denture of maxilla and mandible with which she was satisfied. Approximately one month before her coming, she noticed the lesion in the anterior of mandible but she did not pay any attention, until 2 weeks later that this lesion inhibited fitting the denture and she could not use it, so recourse to department of oral medicine in Babol. The patient was stressful and reported, the lesion enlarged gradually through the recent month but did not make a problem. There was not pain, paresthesia or other symptoms except bleeding on irritation area. In her medical history, there were asthma and rheumatoid arthritis, which were under control. It is necessary to say that the patient had no history of tobacco and alcohol. Extra-oral manifestation and lymphadenopathy examination of head and neck

region was negative. Intra oral examination revealed the exophytic sessile mass in edentulous alveolar ridge of lower-left incisors and canine region, with buccolingually extension, the size of approximately 2.5×2 cm, with non-homogenous surface texture and color. There was a minor ulcer with fibrinoluositer membrane on the lesion and mild depression existed on the surface seemed due to trauma of maxillary denture. The consistency of mass was loose in palpation (fig 1)

Panoramic view and occlusal cross-sectional radiography revealed subtle resorption of alveolar crest ridge, Which was not obvious (fig 2a,b)

Considering the history and clinical procedure of the lesion, clinical behavior and feature, examination of lesion, also radiographic interpretation.

Benign inflammatory hyperplastic lesions were considered in differential diagnosis.

Patient underwent to incisional biopsy of the lesion, the surgeon noticed real bone resorption did not accommodate to its radiographic feature. The excised specimen was submitted for histopathological evaluation illustrated dysplastic epithelium in the surface of lesion. Invasive islands and cord of malignant squamous epithelial cells. Abnormal mitosis, individual cell keratinization and keratin pearl formation was observed. Lesion cells showed abundant eosinophilic cytoplasm with large and hyper chromatic nuclei and increased nuclear to cytoplasmic ratio. Also cellular and nuclear pleomorphism was seen. Chronic inflammatory infiltration around tumoral island with plenty of eosinophils was observed.

In addition, the depth of lesion exhibited sections of skeletal muscles, vessels and nerves within the lesion (fig 3a-d). The definitive diagnosis was reported well differentiated squamous cell carcinoma. Then patient referred for CT-scan and MRI of mandible, neck and chest that not annotated extension and possibility of metastasis. After these procedures she was emphasized secondary surgery as fast as possible. However, she was not accepted it. Within 3 months, the lesion recurred, enlarged and extended rapidly, even with extra-oral feature as acrostic ulcer.

New symptoms such as malasia, respiratory disorder and hemoptesis were induced that confirmed pulmonary metastasis with accurate chest evaluation. Patient has undergone radiotherapy and chemotherapy from June, finally in November 2013, she passed away, due to progression of OSCC.



Figure 1 .Clinical feature of the lesion at first visit

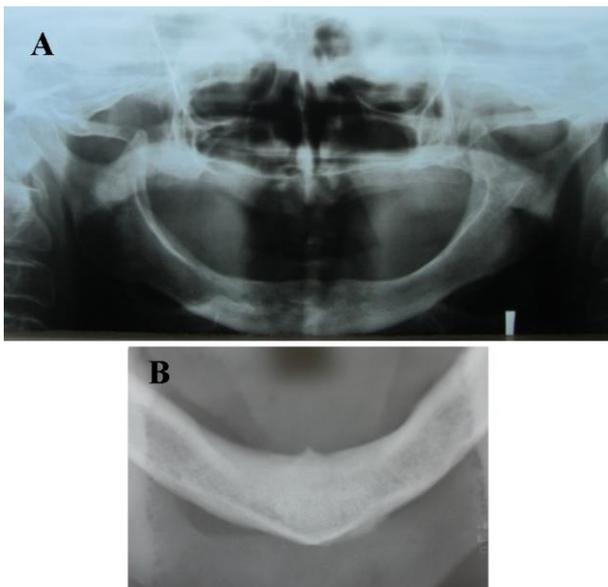


Figure 2. Panoramic view(A) and Occlusal cross – Sectional radiography(B)

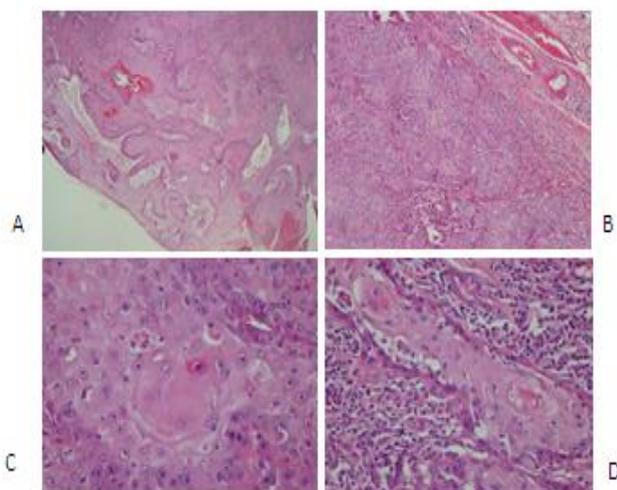


Figure 3. HistoPathologic features (H&Estaining)

Discussion

Oral cancer represents 4% of all cancers in males and 2% in females. It causes 2% of cancer death in males and 1% in females (1). Despite of this, our case was a female in her higher ages. In according to region of OSCC the lips, gingiva, dorsal of the tongue and palate are less common site and in the more cases, it appears in the posterior areas of jaws (7). In our case, the lesion was on the crest of alveolar edentulous ridge of mandible with buccolingually expansion. Also lesion involved the anterior region from left lower central incisor to canine, a common site for inflammatory hyperplastic lesions . This feature of exophytic mass in the current case was typical feature of inflammatory hyperplastic lesion but was unusual feature of OSCC. Also clinical procedure and behavior, slowly growth and bleeding with trauma or irritation factors (denture of mandible) of the lesion were similar to IH lesion (1,2,6,8,9). Spread of OSCC to local structures lead to fixation, induration, and lymphadenopathy. Trades of lymph node are through first-station drainage node and then second stage nodes (5) .In extra-oral examination of this case we did not observe positive lymphadenopathy. On the other hand, distant metastasis of OSCC is rare. Lesions of the floor of the mouth, tongue, and posterior sites tend to metastasize earlier than those located in anterior sites. Lesions in the maxilla have a greater tendency to metastasize than do those in the mandibular region (5, 10, 11). In this patient after 4 month of first visit, pulmonary metastasis detected with chest evaluation followed by patient new symptoms.

Martin reported that approximately 10% of all malignant neoplasms of oral cavity take place on the gingiva (12) and rise more commonly in edentulous area, although they may develop at areas where teeth are present.(2)

In recent years, studies have also indicated a trend of incrementing percentage of additions to diminish male/female ratio (13,14,15) ,our case was similar to these new finding.

Conclusion

This case with an unusual OSCC in female on the anterior edentulous mandibular ridge mimicked inflammatory hyperplastic lesion reminds us to keep the possibility of OSCC in mind while examining every intra-oral lesions.

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