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One Case of Cervical Lymph Node Metastasis was Reported

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Abstract: Objective: To report a case of cervical lymph node metastatic cancer in order to improve the understanding of this disease. Methods: To analyze the clinical features, clinical manifestations and risk factors of a case of cervical lymph node metastasis after operation of gingival squamous cell carcinoma. Results: Clinical features: The patient had a long clinical course and was diagnosed as "right cervical lymph node metastatic carcinoma", which was consistent with squamous cell carcinoma combined with morphology and history. Tissue: The tumor cells grew into nests and infiltrated, and the cell atypia was obvious, with keratinized beads and pathological mitosis. Immunohistochemistry: P63 (+), P40 (+), CK5/6 (+), P16 (-), Ki-67 hot spot index 40%. Conclusion: Cervical lymph is the aggregation area of the whole-body lymph; the whole-body lymph fluid can be drained through this. Pathology combined with immunohistochemical examination is the gold standard of diagnosis. The main treatment is surgical resection, combined with radiotherapy if necessary, and close follow-up after surgery.

Keywords: Cervical Lymph Node Metastasis; Squamous Cell Carcinoma; Maxillary Gingiva.

1. Introduction

Cervical lymph node metastatic carcinoma refers to the primary cervical lymph nodes of malignant tumor, can through the lymph node metastasis, causing cervical lymph node enlargement, accounts for about three-quarters of all the neck malignant tumors; In the neck mass, the incidence is second only to chronic lymphadenitis and thyroid disease. The majority (85%) of primary cancers were in the head and neck, especially nasopharyngeal carcinoma and thyroid carcinoma. Gingival squamous cell carcinoma is mostly presented as cauliflower, nodular or ulcerative, the ulcer surface is uneven, the edge is turned to resemble granulation, may have a foul odor, make the tooth loose or fall off, or have been extracted. Radiographs showed alveolar bone destruction, local lymph node enlargement, and squamous cell carcinoma in the posterior dental region. This paper reports a case of cervical lymph node metastasis after operation for maxillary gingival squamous cell carcinoma.

2. Case Report

The patient, a 69-year-old female, was admitted for the first time: The patient was admitted to hospital in 2021-04-26 about half a month due to the discovery of gingival masses in the left posterior maxillary region. Medical history; 2. Specialist physical examination: In the left maxillary posterior dental area, gingival masses were observed, which started from the distal gingival papillae of teeth 24 to the distal gingival papillae of teeth 26, and the buccal palate moved from the medial keratinized gingivae of vestibular groove of left maxillary posterior teeth to the middle 1/3 of the hard palatal mucosa of the palatal side of teeth 25. The swelling was gray and medium in texture, and the surface of the masses was marked with Cauliflower projection, without surface rupture and blood oozing. The tumor has poor motion and is adhered to the surrounding gingival, without obvious tenderness or numbness. 25 teeth had two degrees of loosening, 26 teeth had one degree of loosening, 24 teeth and the remaining teeth had no degree of loosening. 25 teeth knock (+), cold (-). 26 teeth knock (±), cold (-). The remaining teeth are all knocked (-). There was no redness, swelling or rupture of oral gingival mucosa. 3. Auxiliary examination :2021-04-26 Maxillary CT report in our hospital: No abnormality was found in bilateral maxillary CT plain scan. 4. History of coronary heart disease for more than 15 years. The diagnosis was:1. Left maxillary gingival mass 2 arrhythmia-type coronary heart disease. After admission, physical examination was performed, contraindications were excluded, and biopsy of left maxillary gingival masses was performed under local anesthesia and intensive treatment on 2021-04-27. 2021-04-30 Postoperative pathological findings (Pathology number: 202103236) (left maxillary gingival mass) highly differentiated squamous cell carcinoma. Immunohistochemical results: about (+), P40 (+), CK5/6 (+), P53 (+ 40%), CyclinD1 (+) and P16 (weak +), Ki - 67 index 80%. Revised diagnosis :1. Left maxillary gingival highly differentiated squamous cell carcinoma; 2. Arrhythmia type coronary heart disease. Postoperative anti-inflammatory treatment, intraoral dressing changes regularly. After the nature of the tumor was clear, the resection of left maxillary gingival highly differentiated squamous cell carcinoma + left maxillary partial resection + left functional neck lymph node dissection + chin soft tissue flap transfer repair was performed on 2021-05-13 under general anesthesia. 2021-05-19 Postoperative pathological results reported :(left maxillary mass) highly to moderately differentiated squamous cell carcinoma (highly differentiated 50%, moderately differentiated 50%), the tumor involved the maxilla, (lateral boundary), (medial boundary), (posterior boundary), (anterior boundary), (maxillary solid bottom mucosa) and the incisal margin of the basal bone were not involved. Metastatic cancer was found in lymph nodes (2/13): (left submaxillary lymph node)0/2, (lymph node dissection zone 2)2/6, (lymph node dissection zone 3) 0/3, (left neck tissue dissection zone 1)0/2. Immunohistochemical results showed that the basal cell positive index of P53 (-), P16 (-), P63(+) and Ki-67 in the medial boundary was 10%. After operation, the necrotic tissue and the edge of the intraoral flap were pruned, and the iodoform sand strip was filled and the palatine plate was used

for protection. 2021-06-19 Discharged, a total of 54 days in hospital.

This admission: About 1 month ago, the patient found a tumor in the right neck, no obvious symptoms, no history of growth and decline. 2021-11-29 Patient came to our department. Evidence after admission: 1. Medical history; 2. Specialist physical examination: the maxillofacial region is asymmetrical on the left and right side, the skin near the right mandibular corner of the right neck is slightly raised, and a mass with a diameter of about 2.5cm can be touched. The texture is hard, there is no obvious motion, the boundary between the surrounding tissues is not clear, and there is no touch tenderness. The facial skin was not red, swollen or ruptured, the facial expression muscle movement was normal, and no static or motor facial paralysis was observed. Bilateral temporomandibular joint movement was normal, no bounce, mouth opening and opening pattern were not abnormal. The left maxillary tooth was missing after tooth 21, and the left maxillary and neck surgical areas recovered well. 3. Auxiliary examination: CT examination of neck and chest, results report: 1. Left submaxillary gland display is unclear, please combine clinical; 2. Local absence of left maxilla, please combine clinical; 3. Soft tissue density focus in the right mandibular Angle area, please combine the terminal, puncture biopsy is recommended; 4. Multiple soft tissue density foci on both sides of neck and right submaxillary region, lymph nodes were considered; 5. Inflammatory fibrosis of the left lobe of the left lung and the middle and lower lobe of the right lung was recommended for review; 6. Aortic wall and coronary artery wall calcification are recommended by CT coronary angiography: 7. Adhesions of pleura on both sides. PET/CT examination is recommended. 2021-12-10PET/CT examination results :1. Postoperative changes of left maxillary gingival cancer, no obvious abnormal increased metabolic activity in the operative area: 2. Lymph nodes were enlarged in the carotid sheath space of the right neck with increased metabolic activity, and metastasis was considered; 3. Slightly larger lymph nodes in the Ib region of the right neck, low metabolic activity, considered benign; 4. Slightly low-density nodules in the right lobe of thyroid gland with low metabolic activity, please combine ultrasound examination; 5. Small nodules in the dorsal segment of the lower lobe of the right lung with low metabolic clearness were considered benign; Pulmonary bulla of left inferior lobe; The middle lobe of the right lung and the upper lobe of the left lung; Local thickening of the right side of the pericardium; Coronary atherosclerosis; Local thickening of the left costal pleura; 6. Sub-card; Absence of uterus; 7. Lumbar spine instability, degenerative changes in bone, Hummer's tubercles of lumbo1 vertebra; 8. Cerebral glucose metabolism imaging showed no significant abnormalities. The diagnosis was: 1. right neck mass; 2. Left maxillary gingival highly differentiated squamous cell carcinoma after surgery; 3. Arrhythmia coronary heart disease. Contraindications were excluded and the right radical neck lymph node dissection was performed under general anesthesia in 2021-12-21. Postoperative anti-inflammatory treatment, indwelling of bilateral negative pressure drainage tube in the operative area, regular dressing change in the operative area. 2021-12-24 Postoperative pathological results reported: (right neck lymph node dissection tissue) lymph node metastasis (1/26), combined with morphology and history consistent with squamous cell carcinoma; submental incisal margin, neck deep upper incisal margin, neck back incisal margin, neck deep lower incisal margin net; Immunohistochemistry: P63(+), P40(+), CK5/6(+), P16(-), Ki-67 hot spot index 40%. According to the pathological findings, the diagnosis was revised as follows: 1. Metastatic carcinoma of right cervical lymph nodes; 2. Left maxillary gingival highly differentiated squamous cell carcinoma after surgery; 3. Arrhythmia coronary heart disease. 2021-12-27 Remove bilateral negative pressure drain. Then he was transferred to the department of radiotherapy and chemotherapy for postoperative radiotherapy combined with concurrent chemotherapy.

3. Discuss

Squamous cell carcinoma is the most common oral cancer, accounting for about 80% of maxillofacial malignancies [1]. The 5-year survival rate is about 50%. Cervical lymph node metastasis is an important factor affecting the prognosis and survival rate of patients [2]. Malignant tumors originating from hard palate and maxillary teeth are usually classified as the same site for research due to their adjacent anatomical sites and similar biological behaviors [3]. Squamous cell carcinoma is more common in maxillary malignancies, accounting for about 32.9% [4]. Studies have shown that the rate of occult cervical lymph node metastasis is 28.8%, the rate of cervical lymph node metastasis is 39.7%, and the 5-year survival rate is 59.0% [5].

In patients with metastatic cervical lymph node cancer, the cervical lymph nodes are stiff, progressive growth, no pressure pain, unclear boundaries, and poor motion. Over time, enlarged lymph nodes can fuse into clumps and form a fixed mass. Skin thinning, desquamation, pigmentation of the neck, if ulcer occurs, may also have bleeding, seepage and other manifestations. In patients with metastatic cervical lymph node cancer, the digestive system function will be affected, resulting in loss of appetite, reduced eating, and then emaciation, fatigue and other symptoms.

The risk factors for the occurrence of contralateral cervical lymph node metastasis in oral cancer are clinical stage and the involvement of the midline and the floor of the mouth. Not all tumors that do not exceed the midline do not have contralateral metastasis [6]. The method of determining the treatment of contralateral cervical lymph node solely based on whether it crosses the midline is obviously inadequate. In clinical work, for patients with oral cancer associated with the above high-risk factors, the contralateral neck lymphatic condition should be closely observed, and relevant adjuvant treatment can be taken if necessary; while for patients with multiple high-risk factors, contralateral neck lymphatic dissection should be considered at the same time to reduce the possibility of postoperative recurrence of contralateral neck lymphatic node [7].

4. Conclusion

For maxillary gingival and hard palatal squamous cell carcinoma, attention should be paid to the examination of the contralateral cervical lymph nodes to prevent the omission of contralateral cervical lymph node metastasis.

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