INTRODUCTION

Oral cancers account for approximately 10% to 14% of head and neck malignancies (1). Oral squamous cell carcinoma (OSCC) is the most frequent malignancy of the oral cavity (2).

Head and neck squamous cell carcinoma (HNSCC) is typically considered to be a disease that predominantly affects older men, with a male:female ratio of approximately 4:1 and one in 118 women diagnosed with cancer is pregnant at the time of diagnosis (3,4). However, for a surgeon seeing a case of oral carcinoma in pregnancy is extremely rare 5.

Oral cancer accounts for less then 2% of all cancers during pregnancy (5).

Squamous cell carcinoma of floor of the mouth is not reported in the literature before but the tongue carcinoma is the most common oral cancer reported during pregnancy (5-7).

CASE

26-year-old female patient admitted to our clinic with a lesion in the mouth for 2 weeks. The patient was 34 weeks pregnant and non-smoker. ENT examination revealed that the fragile, ulcerated, 2×1 cm width and 6-7 mm depth lesion was on the left side of the floor of mouth. In eight days, the tumour was almost double in size. Median mandibulotomy was applied to facilitate the resection of the tumor via transmandibular way and the tumour was removed en bloc together with the neck dissection specimen. The patients with oral squamous carcinomas during pregnancy should be treated more quickly, patients and families should be informed about the tumor progression.

Keywords: Pregnancy, Floor of the mouth, Squamous cell carcinoma
neck dissection was planned but the patient did not accept the operation. After eight days, the patient was admitted to our clinic again. Tumor size was seen to have reached to 5.5×3 cm from the first day to 22nd day when the operation was performed. The perioperative depth was measured approximately 1.5 cm. Median mandibulotomy was applied to facilitate the resection of the tumor via transmandibular way and the tumour was removed en bloc with the neck dissection specimen. Perioperative frozen studies were reported as negative surgical margins. Large defect in the floor of the mouth was reconstructed with pectoralis major musculocutaneous flap. 1 positive lymph node metastasis was detected in the ipsilateral middle cervical region after the pathological examination. Thereupon, after the detection of lymph node metastasis, contralateral neck dissection was performed after 4 weeks. There was no evidence of distant metastases in the patient’s assessment by PET. In light of these findings, according to the TNM classification, it was staged as - Stage 4a. Concomitant chemotherapy and radiotherapy was planned at postoperative 1th month. The patient had received cycles of cisplatin and 50Gy boost bilateral neck radiotherapy with 66 Gy IMRT technique. The patient is in the remission period now.

DISCUSSION

Cancer of floor of mouth is a very rare condition during pregnancy and never reported in the literature before. However, the rarity of the condition means it is impossible to acquire any experience and equally difficult to accumulate any collective data from different centers. Long-term alcohol and tobacco use have been identified as the traditional risk factors for oral cavity SCC (6). Interestingly, recent trends have shown an increase in the incidence of HNSCC in younger patients without these risk factors, and there is controversy over whether these represent a more aggressive form of cancer (7).

HPV-positive oropharyngeal cancers are also associated with younger age at diagnosis and may arise in people without a history of tobacco use (8). Pregnancy may induce physiologic changes that can promote neoplastic growth, such as a high metabolic state, increased circulating growth factors, and amplified hormonal responses mediated through the estrogen and progesterone receptors (5,7-9).

Cheng et al. (10) studied on placenta growth factor’s effect about progression and prognoses of oral cancer and the found that the PIGF labeling index in OSCC samples was significantly correlated with N classification and clinical staging of OSCCs. Moreover, patients with OSCC with higher PIGF labeling indices had a poorer cumulative survival than patients with lower PIGF labeling indices (11).

When HNSCC is diagnosed in a pregnant patient, clinicians and patients are faced with the challenge of balancing maternal and fetal health. Although early detection and intervention are key, it is also important to weigh the risks of diagnostic and treatment modalities to the fetus. The patient is faced with difficult ethical decisions, and the clinician is often tasked with providing both optimal treatment for the cancer and protection of the fetus 8.

Treatment of an oral cancer occurring during
pregnancy depends on the prognosis of the specific malignancy (type, site, and stage of tumor), the course of the pregnancy, and the wishes of the patient and her spouse 7.

In our case, the delay of the surgery caused an aggressive increase of the tumor size and tumor progression in patient with Stage 4 to Stage 2 after the diagnosis of squamous cell carcinoma of floor of the mouth in pregnancy, the patient should be treated more quickly, patients and families should be informed about the tumor progression. The link between oral cancers and pregnancy has yet to be firmly established, and more etiological studies are urgently required to better understand and manage this condition.

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