Painful Early Cancerous Lesion Needs Evaluation: A Case Report

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Abstract

The stage and location of tumor are influential factor for cancerous pain. The tumor generates pain by triggering infection and inflammation by crushing and infiltration. The lip lesion by its prominent location is generally detected in early stage. Early lesion can involve mental nerve and mandible by direct extension, perineural invasion and lymphatic spread into mental foramen. The perineural extension of disease is generally asymptomatic in early stage but alarm rings when pain, paresthesia, numbness are the presetting symptom. We are highlighting here a rare case of early lip malignancy with pain in the region of mental nerve distribution and its management.

Keywords: Lip cancer; Perineural invasion; MRI

Introduction

Lips are most common site for head and neck malignant lesions. The lip lesion by its prominent location is generally detected in early stage. The stage and location of tumor are influential factor for cancerous pain. The tumor generates pain by triggering infection and inflammation by crushing and infiltration. Early lesion can involve mental nerve and mandible by direct extension, perineural invasion and lymphatic spread into mental foramen. The perineural extension of disease is generally asymptomatic in early stage but alarm rings when pain, paresthesia, numbness are the presetting symptom. Perineural disease remains a diagnostic, prognostic and therapeutic challenge for the multidisciplinary team approach [1]. The perineural invasion associated with high chances of loco regional recurrence and affect survival if missed [2]. We are highlighting here a rare case of lower lip malignancy in its central part with pain in the region of mental nerve distribution and its management.

Case Presentation

Thirty six year male patient presented with 6 years history of non healing ulcer on lower lip. The clinical examination revealed 3×2 cm ulcer on left side of lower lip extending from vermilion border to 3 cm from gingivolabial sulcus in its antero-posterior direction (Figure 1). In horizontal direction, extension was from midline to 2 cm short of left commissural area. The local examination also showed 2×2 cm enlarged lymph node at left level 1b. The patient was posted for wide local excision and left side modified neck dissection. After admission patient was giving history of pain
in the region of skin over mentum. This raised the suspiciousness of nerve involvement. The CECT showed widening of mental foramen and canal on left side mandible (Figure 2). The contrast MRI revealed thickness of mental nerve and mandibular nerve on left side till foramen ovale (Figure 3). The stage of tumor was changed from three to four and surgical plan was converted into wide local excision with segmental mandibulectomy and left MND with free fibular grafting (Figure 4). Intra-operative proximal part of mandibular nerve was send separately. The final histopathology report highlights the presence of perineural invasion of mental nerve and mandibular nerve with disease free proximal end of mandibular nerve which was send separately in operation. The patient received post operative radiotherapy and he is under disease free regular follow up till date.

Discussion

The lip lesions diagnosed early and prognostically better among oral malignancies due to its prominent location. The usual presentation is non healing painless ulcer. Lower lip is more commonly involve then upper lip. The risk factors for mutation of oncogene are similar with other subsite of oral cavity such as smoking, alcohol, UV radiation etc [3]. The bony invasion is most documented local cause of pain which was absent in our case. The causes of local pain are direct infiltration, presence of infection and by chemical reaction. The perineural invasion is a well-recognized clinicopathologic entity found in head and neck cancers. Perineural disease remains a diagnostic, prognostic and therapeutic challenge for the multidisciplinary team approach [4]. The nerves are important routes of tumor spread in H&N malignancies, yet the biology and prognostic implications of peri-neural tumor growth are not fully understood. On balance, the available evidence suggests that it is associated with an increased risk of loco-regional recurrence.

MRI is the best imaging modality to detect tumor extent as we seen in our case. The suppression of high intensity fat signal at foramina on T1 weighted images is suggestive of tumor infiltration/nerve involvement. The administration of contrast with fat suppression is facilitating better nerve evaluation [5]. The features of nerve infiltration on CT scan are widening of foramina, bony canal and increase thickness similar to our case [6].

Conclusion

The changes in symptomatology in early stage tumor need evaluation for better outcome and to explain prognosis.

References