



ORIGINAL RESEARCH PAPER

TREATMENT OF CARCINOSARCOMA OF PALATINE TONSIL WITH CHEMORADIO THERAPY: A MANAGEMENT DILEMMA

Oncology

KEY WORDS: carcinosarcoma, uncommon head and neck cancers, carcinosarcoma head and neck

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| ABSTRACT | There are no established guidelines for treatment of carcinosarcoma of head and neck region due to infrequency of its occurrence. Role of chemoradiation as the sole modality of treatment remains to be proven. Here we report a case of carcinosarcoma tonsil treated with concurrent chemoradiation with the aim of organ preservation. |

Introduction:

Carcinosarcomas remain a physicians' dilemma due to the rarity of its occurrence. Uncommon are sites like oral cavity and oropharynx where the challenges are harder still. In this article, we report one case treated with radical chemoradiation, the outcomes as noted and available review of literature.

Case report:

A 44-years old male patient reported in the radiotherapy outpatient department with complaints of throat pain of 2 to 2.5 months' duration. On clinical examination, he had a pedunculated growth over right tonsillar fossa and 1x1 cm² and 2x1 cm² firm fixed nodes at the right IB and II cervical levels respectively. When examined under anaesthesia, an ulcero-proliferative growth was seen in right tonsillar fossa with fibrotic bands extending to the anterior tonsillar pillar. Posteriorly, the lesion extended to the lateral pharyngeal wall. Punch biopsy was suggestive of carcinosarcoma. Contrast enhanced CT-scan of PNS and neck revealed a 38x24 mm polypoidal lesion arising from the right tonsillar fossa, extending to right lateral and posterior oropharyngeal walls. It crossed midline and was abutting left lateral pharyngeal wall, lingual epiglottis and right aryepiglottic fold. After appropriate metastatic work-up, dental evaluation and nutritional assessment, he was treated with concurrent chemoradiation with radical intent. He was treated on telecobalt unit (Bhabatron II) with parallel opposed lateral fields with X-ray simulation to a total dose of 66Gy in 33 fractions (2 Gy per fraction, once daily, five days per week) with field reduction to exclude spinal cord after 46Gy. Chemotherapy included Inj carboplatin 150 mg weekly for 6 cycles. Treatment was concluded in 45 days without gap. Patient developed grade II mucositis (CTCAE version 4.0) during treatment which was managed conservatively. He presented with complaint of persistent throat pain in the first follow up which improved subsequently. A follow-up CT scan done at three months post completion of radiation was unremarkable with complete resolution of the primary and nodal disease. Subsequent follow ups were normal. Patient is presently 2 years post treatment and on regular followup.

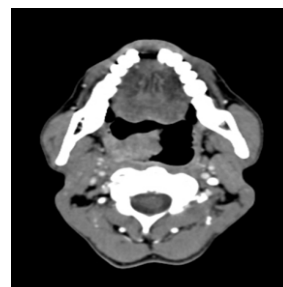


Fig.1- Contrast enhanced CTscan showing almost homogenous mass in Right tonsil

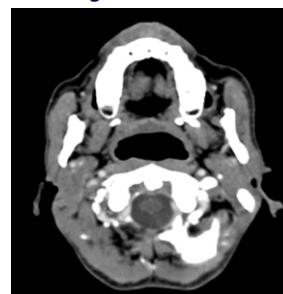


Fig.2- contrast enhanced CT scan at 1 year follow up.

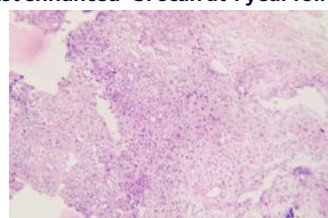


Fig.3- histological images [hematoxylin and eosin staining, 200x]

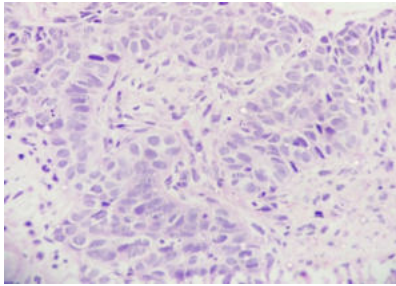


Fig.4- hematoxylin and eosin stained slides

Discussion:

Carcinosarcomas are carcinomas coexisting with a sarcoma and are rare. Histologically these lesions exhibit bizarre spindle cells intermingled with epidermoid components. More commonly, carcinomas arise in pre-existing adenomas (carcinoma ex pleomorphic adenoma) where the mesenchymal component is benign in nature. There are a number of hypotheses regarding origin of the lesions, namely collision tumour hypothesis, composition hypothesis, combination hypothesis and conversion or divergence hypothesis³.

Of all sites, uterine carcinosarcomas and mixed mullerian tumours have been most widely studied. The age of incidence is in the 6th decade of life. Nodal metastases are noted in about 14% cases. Pattern of dissemination is similar to that of endometrial carcinoma. A number of randomized studies show better locoregional control with adjuvant radiotherapy following surgical resection than surgery alone^{11,12}.

In the head and neck region, oral cavity and oropharyngeal cancers are most common and account for a large number of cancer related morbidity in India. Majority of these lesions are of squamous histology. Carcinosarcomas are rarely encountered in head and neck region. To our knowledge, eleven cases involving oral cavity, tonsils and larynx have been reported in literature till date. Clinical course and prognosis has been found to be grave², while some report a favorable outcome^{2,10}. Most of the fatalities have been reported with airway obstruction and subsequent respiratory compromise⁶. Metastasis from carcinomatous component is usual^{5,6} and mostly occurs in lung, cervical and mediastinal lymph nodes, liver, bone and central nervous system. Carcinosarcomas originating in lung have shown sarcomatous dissemination^{4,5,6}.

CT scan findings maybe variable and might show a homogenous area with low density, low density area with calcifications or an enhancing lesion with central low density. Some authors have inferred that this variability of CT appearance may result from varied histological composition¹³.

A well-defined management guideline is lacking as these tumors are uncommon and seldom encountered in regular clinical practice. Treatment commonly comprises of surgical resection, lymph node dissection for palpable lymphadenopathy, and adjuvant radiotherapy⁷. Use of radiotherapy as the sole modality or incomplete surgical resection have been implicated by many authors as the causes of loco-regional failure^{7,8,9,10}. In our patient, due to extensive involvement of the lateral pharyngeal wall and epiglottis, radical chemo-radiation was opted as an alternative to otherwise morbid surgery. The patient responded well to the treatment and clinical and radiological investigations did not suggest any residual/recurrence at the time of writing this article.

Conclusion:

Although findings of one patient might not be extrapolated to a large population, chemoradiation can be explored as a treatment modality to reach a conclusion. As with epitheloid histology, this treatment method can provide a decreased morbidity alternative to surgery.

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