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Case report

A giant oropharyngeal synovial sarcoma threatening the supraglottic airway – A case report

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ABSTRACT

Oropharyngeal synovial sarcoma is a rare malignant tumour. It has an aggressive nature and poor prognosis. The treatment of the synovial sarcoma is essentially surgical followed by postoperative chemoradiation. The giant oropharyngeal synovial sarcoma obstructing the airway may create threatening to the patient's airway and challenge to the surgeon. Before treating the patient, safe airway is vital for management of the disease. The appropriate diagnosis and treating the lesion with negative margin can improve the prognosis and survival of the patient. We report a case of oropharyngeal synovial sarcoma obstructing the supraglottic airway in a 29 year old man, who undergone tracheostomy for safe airway followed by surgery and chemoradiation.

1. Introduction

Synovial sarcoma is a rare malignant tumour of the head and neck area, originating from the pluripotent mesenchymal cells.[1] Although its name synovial sarcoma, it rarely arises from synovial membrane.[2] It is commonly found near the large joints and may arise in close association with tendons, tendon sheaths, bursae and juxta-articular membrane and in 10% cases involve the joints. Synovial sarcoma usually affect knee, hip, ankle and shoulder joints whereas 3–10% of them seen in head and neck region. Hypopharynx and parapharyngeal space are the most commonly affected in head and neck area although few cases are reported from larynx, nasopharynx, gingival sulcus, pyriform fossa, cheek, parotid gland, infratemporal fossa and middle ear.[3] The first synovial sarcoma was first reported by Jernstrom in 1954.[4] The diagnosis is confirmed from the histopathological examination and supported by immunohistochemistry, cytogenetic analysis and electron microscopy. Treatment of the localized synovial sarcoma is complete surgical excision and supplemented with chemoradiation.[5] The correct diagnosis, planning for surgery and supportive therapies for synovial sarcoma at oropharynx threatening airway, is always a challenge to the Otolaryngologist. Here we are reporting a case of giant synovial sarcoma arising from the lateral wall of the oropharynx obstructing the supraglottic airway.

2. Case report

A 29 year old man attended the outpatient department of Otorhinolaryngology with complaints of muffled voice and recurrent discomfort in the throat since 3 months. He denied history of smoking and alcohol consumption. Fiberoptic nasopharyngolaryngoscopy revealed a smooth and pinkish coloured smooth mass arising from the left lateral pharyngeal wall and completely obstructing the supraglottic airway and hiding the glottic area of the larynx (Fig. 1). There was no cervical lymphadenopathy. Examinations of the nose, ear and oral cavity showed no abnormality. Routine hematological investigations were within normal limit. A lateral X-ray of the neck showed protrusion of the abnormal mass from the left lateral wall of oropharynx compromising the supraglottic airway. CT scan of the neck with contrast showed a hyper vascular mass arising from the left lateral wall of the oropharynx with size of 8 cm × 7 cm obstructing the supraglottic area without invading into any major blood vessels of the neck (Fig. 2). X-ray of the chest was normal. Tracheostomy was done before surgery for safe airway and anticipating difficult intubation for general anesthesia. Endoscopic approach was done for excision of the tumour under general anesthesia. Partial Pharyngectomy with tumour

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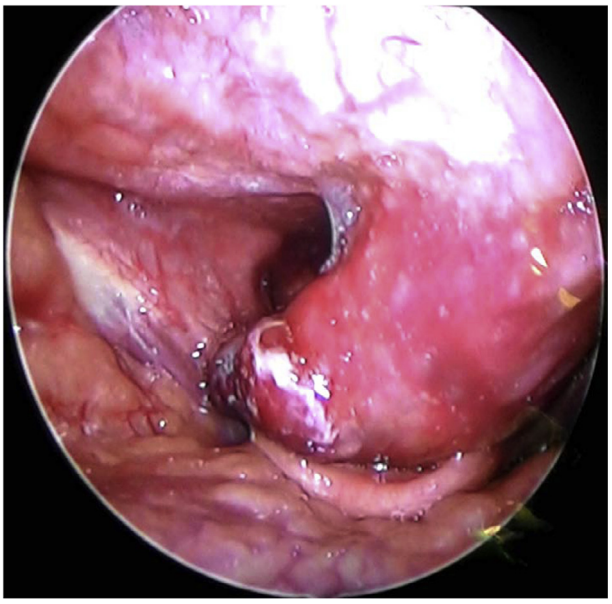

Fig. 1. Nasopharyngolaryngoscopy picture of oropharynx showing mass arising from left lateral wall.

was done by endoscopic approach. The tumour was excised with tumour free margin after confirmation of frozen section procedure. Histopathology report revealed two types cells (Biphasic pattern): spindle cells and glandular cells which are characteristic synovial sarcoma (Fig. 3). Immunohistochemistry showing positive to CD99, EMA (Epithelial membrane antigen), Bcl2 and Vimentin (Fig. 4). As the tumour was involving the local tissue, patient received five cycles of injectable chemotherapy of Doxorubicin

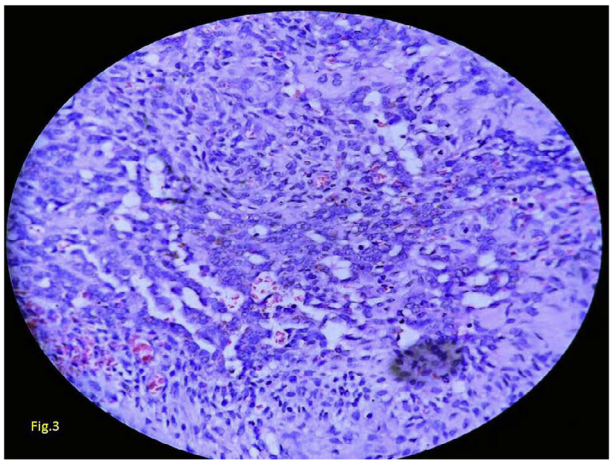

Fig. 3. Histopathology picture showing Biphasic pattern of synovial sarcoma with spindle and glandular epithelial cells.

(30 mg/m^2), Decarbazine (400 mg/m^2) and ifosfamide (2 mg/m^2). After that, patient was taken 66 Gy radiotherapy to head and neck region for six weeks duration. Patient was stable postoperatively. Patient follow up was done by an oncologist with further treatment with chemotherapy and radiotherapy. Postoperative CT scan was showing disease free area in the oropharynx and hypopharynx (Fig. 5). After one year follow up, patient was disease free without any swallowing defect or any dyspnea.

3. Discussion

Synovial sarcoma is a high grade tumour originating from the primitive undifferentiated pluripotent mesenchymal cells and

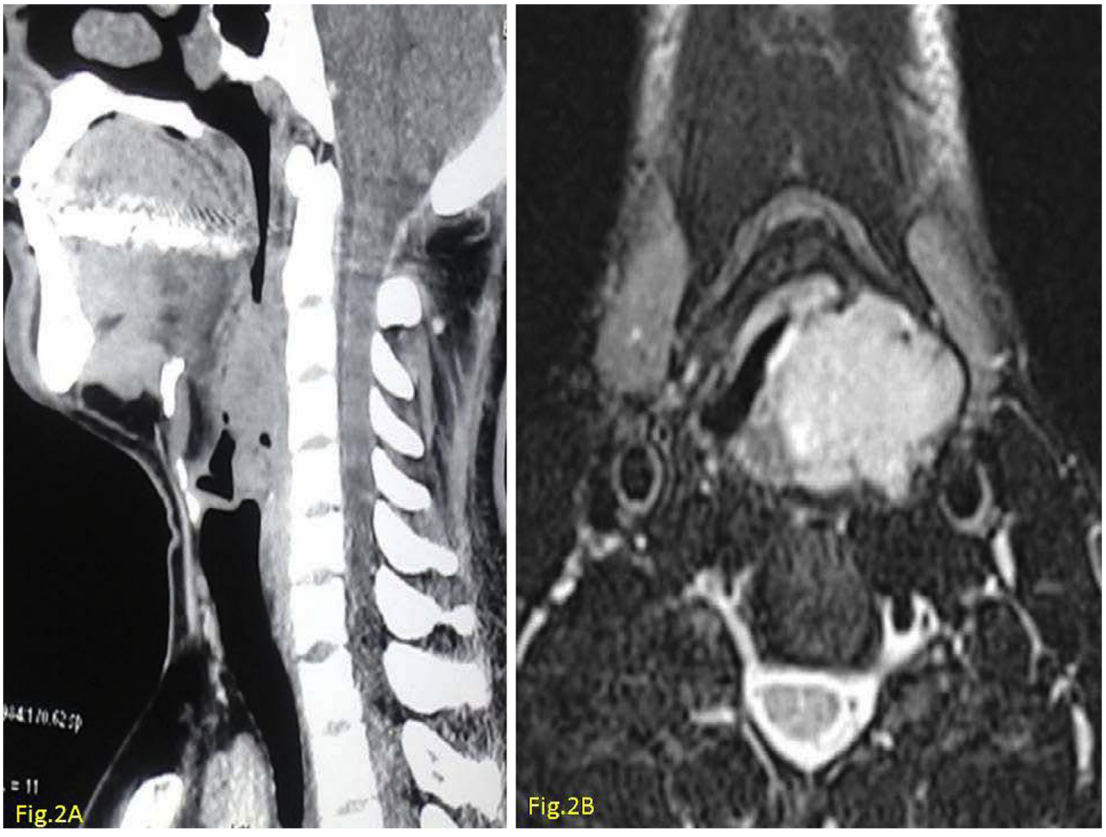

Fig. 2. (A&B): CT (Sagittal cut) and MRI (Coronal Cut) scan showing mass in oropharynx obstructing the laryngeal airway.

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