

## Case Report


# Rare case of parotid rhabdomyosarcoma

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## Abstract

Sarcomas comprise only 0.6% of all cancers throughout the body and account for only 1.5% of all salivary gland tumors. The existence of these tumors has been debatable with some investigators stating that such lesions represent extensions of soft tissue sarcomas into the gland. In young patients, these tumors occur more often than the more common parenchymal tumors or the conventional soft tissue sarcomas. We are hereby presenting a case of a 5 year old male child presenting with a large parotid mass which was diagnosed as parotid rhabdomyosarcoma.

## Key words

Rhabdomyosarcoma, Parotid gland, Children, Salivary gland.

## Introduction

Salivary gland tumours account for only 3% of all tumours in the body and it is estimated that about 1% of all head and neck malignant neoplasms arise in the salivary glands. However, the great variety of histological types makes them a major challenge for radiologists and clinicians. The large range of differential diagnoses influences not only prognosis but also treatment. Rhabdomyosarcoma (RMS) is the most common variety of soft tissue sarcoma in childhood and comprise only 1.5% of all salivary gland tumors [2]. They most commonly involve

the parotid region. The most common mode of presentation is with swelling with pain and restriction of mouth opening. They commonly metastasize.

## Case report

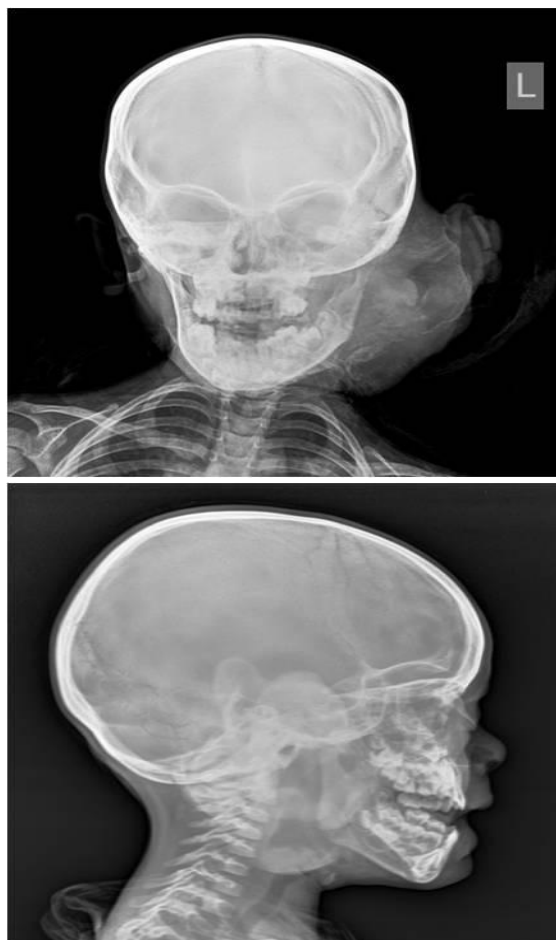
A 5 year old male patient came to Dhiraj General Hospital with complaints of a swelling on the left side of the cheek since 5 months which was gradually expanding and caused restriction of the movements of the mouth. On clinical examination, there was a large ulcerative mass in the left parotid region extending into the

temporal and mastoid region (**Figure - 1**). Skull X-ray AP and Lateral view (**Figure - 2**) was done followed by USG (**Figure - 3**) of the lesion. Patient was then advised a CT scan (**Figure - 4**) to find out exactly from which structure is the lesion arising and the extent of the lesion. The mass was diagnosed as Rhabdomyosarcoma of the parotid gland and the same was confirmed on histopathology.

**Figure – 1:** Patient’s photograph.

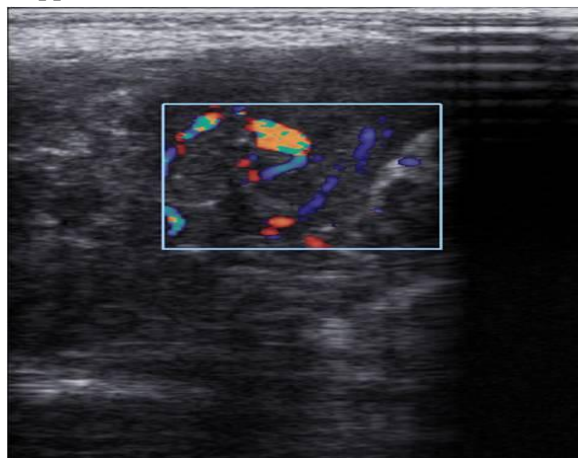


**Figure – 2:** X-ray of skull – AP and Lateral view.



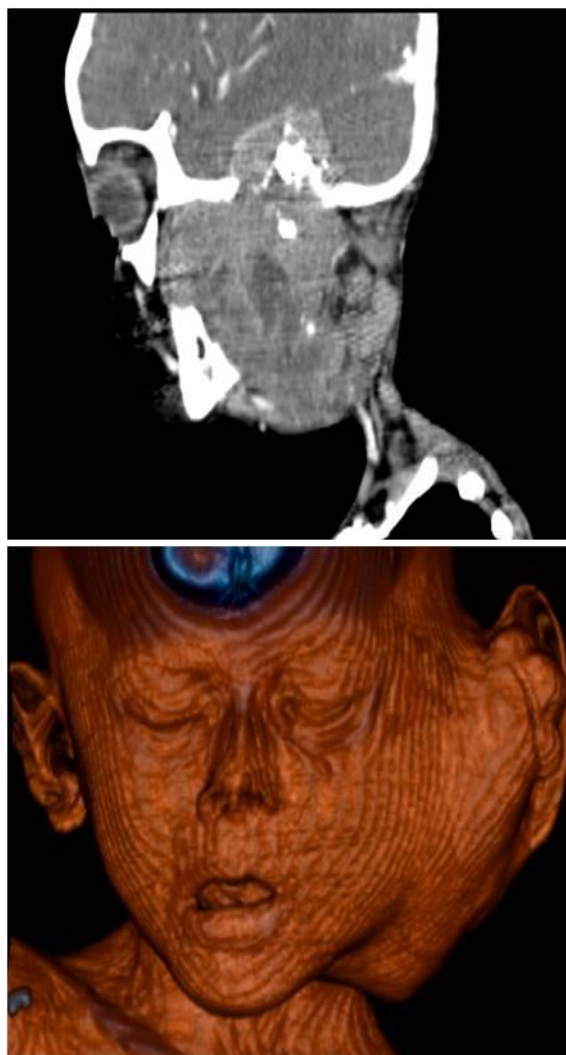
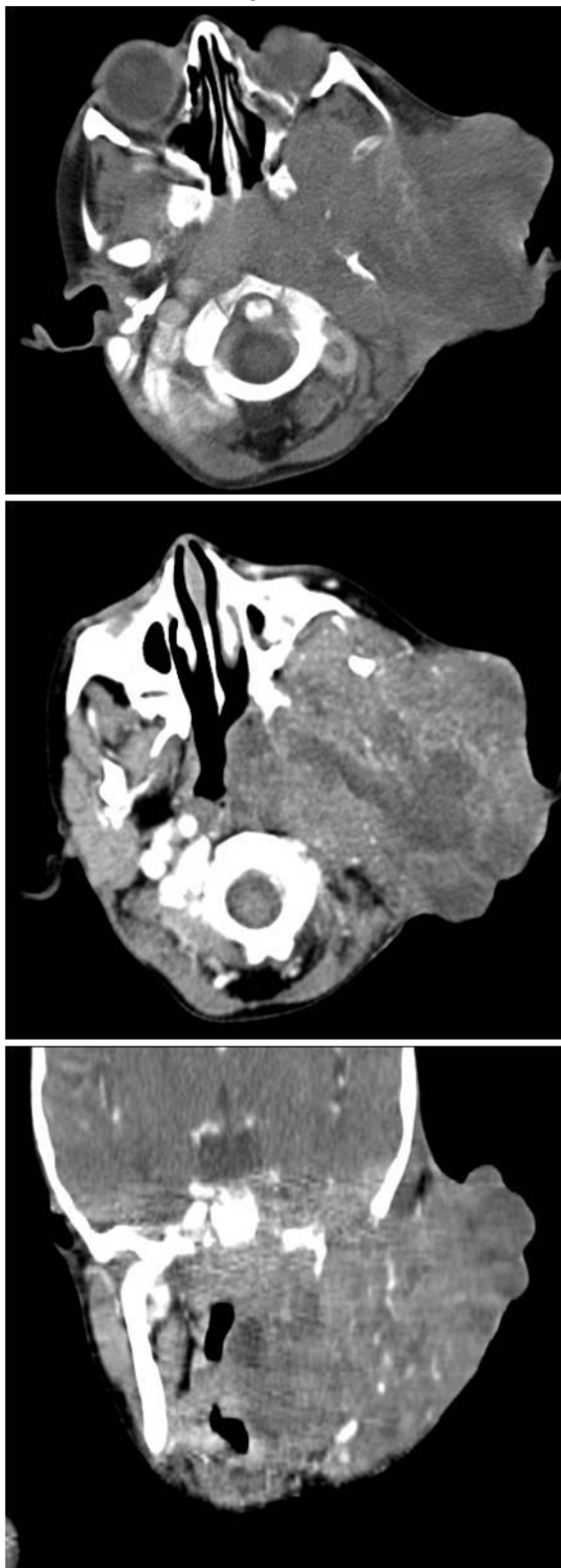
There is a soft tissue swelling arising from the lateral aspect of the left cheek and the left mandibular region, causing erosion of the upper ramus of the left mandible and the condylar and coronoid process of the mandible.

**Figure – 3:** Ultrasound image with color Doppler.



A mixed echogenic lesion is seen arising from the parotid gland. On colour doppler study, increased blood flow is noted.

**Figure – 4:** Contrast enhanced CT scan images: Axial, coronal and sagittal sections.



### **Discussion**

Rhabdomyosarcoma are rare tumors which occur most commonly in the head and neck region. Salivary involvement is usually secondary to advanced disease elsewhere and primary origin in salivary glands is rare. They comprise a total of 1.5% of all salivary gland tumors and most commonly occur in the parotid region. These are more common in the pediatric age group [1]. On radiological imaging these appear as non specific large soft tissue masses with or without calcification. The mass lesion appears hypoechoic on US and is of low attenuation on CT scan. These are non-specific findings seen with most soft tissue sarcomas, and reflect the microscopic findings of necrosis. Variable and moderate post contrast enhancement is seen on CT scan. Spontaneous tumor hemorrhage may

occur and may alter the appearances with the above imaging modalities [3].

### **Conclusion**

Rhabdomyosarcomas are rare tumors of the salivary glands and most commonly involve the parotid region. Early and appropriate imaging techniques can help establish the diagnosis and aid in timely surgical excision of the lesion before it metastasizes.

### **References**

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