

Retromolar Monophasic Synovial Sarcoma: A Rare Entity

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Synovial sarcoma (SS) is a rare tumour that arises in the periarticular tissues of the extremities. 3 to 10% of these sarcomas occur in the head and neck, mainly involving the pharyngeal region. Synovial sarcoma of the mandible (retromolar area), is extremely rare. A 17-year-old girl was presented to the surgical clinic with a gradually enlarging lump in the oral cavity. Examination revealed an ulcerated right retro molar mass (RMM). CT scan revealed an infiltrating RMM extending into the larynx and partially obstructing the lumen. Biopsy was done and sent for histology. Microscopy revealed a malignant spindle cell tumour comprising plump elongated cells with vesicular nuclei, arranged haphazardly and as fascicles. Blood vessels with a haemangiopericytic pattern were present. Histology suggested a monophasic synovial sarcoma (MSS). Immunohistochemistry showed tumour cells positive for AE1/AE3, CD99, BCL2 and negative for CD34, CD31, SMA, CD117 and p63. This confirmed the diagnosis as a retro molar MSS. Diagnosis of SS requires considering its histology, immunohistochemical findings and identification of specific (x; 18) translocation. Histologically, there are three subtypes of SS. Out of these, MSS is a diagnostically challenging entity. This challenge is further increased when MSS occurs in rare locations. The (x;18) translocation is present in 90% of the cases. However, molecular studies are not required if SS can be diagnosed using radiology, histology and immunohistochemistry as done here. This case focuses on the importance of including MSS in the working differential diagnosis of oral malignant spindle cell tumours as well as highlight key features in its diagnosis.

Keywords: *Retro molar, Monophasic, Synovial sarcoma*