DISCUSSION

Dura-based intracranial neoplasms include a wide range of primary and metastatic tumors, varying in their clinicoradiologic, morphologic, and immunophenotypic characteristics. A comprehensive diagnostic work up to delineate the origin, morphologic subtype, and grade of these tumors is essential for therapeutic decision making. Primary and metastatic sarcoma involving the dura is a rare entity. Also, these tumors exhibit close histomorphologic resemblances to meningioma. SS is one such dura-based sarcoma and only two cases of primary dura-based SS have been reported in the literature. Herein, we describe a case of primary parafalcine SS presenting with left hemiparesis. Early in, 20th century researchers coined the term synovial sarcoma for those mesenchymal lesions having a microscopic similarity to the synovium and a propensity to arise adjacent to the joints. With better understanding of the disease and diagnostic breakthroughs, SS now exhibits a wide anatomic distribution, including thigh, abdominal wall, head and neck, including intracranial region, mediastinum, abdominal cavity, lung, pleura, kidney, and gastrointestinal tract.[1] Hence this disease is no longer considered to originate from synovium or have any relationship with it. In the head and neck region, SS is a rare mesenchymal lesion and comprises 3% to 5% of all sarcomas occurring in this region.

Smith *et al.* in 1987 and Fisher in 1994 established the origin of this tumor from an unknown multipotent stem cell having the capability to differentiate into mesenchymal and/or epithelial structures.[2] As the origin of the tumor is still unknown, World Health Organization Classification of tumors classifies SS as a malignant tumor of uncertain differentiation and discourages the earlier used synonyms for SS like tenosynovial sarcoma, synoviosarcoma, synovial cell sarcoma, malignant synovioma, and synoviblastic sarcoma.[3] SS is considered to be a disease of adolescent and young patients but can occur in any age group. 58% of the cases occur between 10 and 40 years and 77% cases occur before 50 years. In the head and neck region, SS occurs between 5 years to 55 years, with a median of 29 years and a mean of 30.6 years.[4] SS has no gender predilection, however, in head and neck region there is a slight female preponderance, with a F:M ratio of 1.6:1.[3,5] Similar findings have been observed in our case. The clinical presentation of non-meningothelial mesenchymal tumors depends on the location and the size of the tumor. The commonest symptoms are nausea, vomiting, headaches, loss of sensation of different parts of the body, difficulty in muscle movements, balance, posture, speech, hearing, loss of memory, and convulsions. Neuroradiologic survey has an important role in discerning the origin of the tumor from the meninges and visualization of the extent of the tumor. Presence of multiple small and spotty radiopacities caused by focal calcification is the most characteristic radiological feature of SS elsewhere in the body. However, this feature was not seen in the present case.[6] CT scan identifies this feature in about one third of cases.[7] MRI shows variation in intensity and enhancement with frequent septations. Most tumors are relatively iso- or hypointense compared to muscle and iso- or slightly hyperintense compared to fat.[8]