Abstract:
Tanycytic ependymoma is a rare type of ependymoma. These tumors are actually fibrillary variant of ependymoma arising from tanycytes. We report a case of 52 year old female presented with neck pain and quadripareisis. She was evaluated and diagnosed as having lower cervical intramedullary lesion. She was operated and lesion was excised completely. She improved postoperatively. Histologically the tumor was composed of round to oval elongated cells with pseudorosettes, all features characterizing intramedullary tanycytic ependymoma. Since the tumor was excised completely, no further treatment is necessary for this variant of ependymoma.

Keyword: Tanycytic ependymoma, spinal intramedullary lesion

INTRODUCTION:
Tanycytic ependymoma is a rare variant of ependymoma which has predilection over spinal cord. They arise from tanycytes. Tanycytes are the common progenitor of both ependymal cell and astrocytes. The tumor cells of this variant of ependymoma resembles tanycytes and hence the name. Treatment of tanycytic ependymoma is essentially same as other ependymoma. These tumors belong to WHO grade II but have sparse nuclear atypia. Radiotherapy is not required when excised totally. Prognosis depends on age of the patient, site of the lesion and extent of excision. Diagnostic confusion occurs as these tumors resemble pilocytic astrocytoma and schwannoma in histology.

CASE REPORT:
52 years old female patient house wife by occupation presented with complaints of neck pain for 1 month. The pain was radiating along the outer aspect of right arm, forearm and upto wrist. The pain was usually dull aching continuous and occasionally became shock like. Pain was aggravated by movements.
of neck and relieved with medications and rest. She got difficulty in lifting her right arm above head because of the pain. Also she found difficulty in gripping object, mixing food and lifting heavy object (bucket of water) with her right hand. She also had difficulty in lifting heavy object with left upper limb. She had occasional buckling of knee and tripping of toes on right side. These symptoms were not associated with sensory impairment (all modalities of sensation). Her bladder and bowel habits were normal. She had no history suggestive of higher mental functions impairment or cranial nerve palsies. She had no constitutional symptoms for inflammatory pathology. She had no co-morbid illness. Her general examination and vitals were normal. Neurologically she had spastic quadriparesis with right side more affected than left (Power 3/5 on right and 4/5 on left). Her sensory system was normal (all modalities of sensation). Her spine examination was normal. She was evaluated with MR imaging. MR imaging showed T1 iso to hypointense and T2 hyperintense well defined oval shaped intramedullary lesion extending from lower border of C5 to upper border of C7 and on the right side of the cord on axial section. With gadolinium, it showed homogenous

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**PRE OP- AXIAL CONTRAST**

Laminectomy was done at the level of C5, C6 and C7. With loop magnification, the dura was opened. The intramedullary lesion was found surfing at right anterolateral aspect. By cutting the ligamentum denticulatum on right side, myelotomy was done where the tumor was surfing. Tumor was reached. Then it was dissected and delivered out in-toto.
PATHOLOGY:
The tumor was about 2 x 1.5 cm greyish white, soft and non-suckable. Squash was reported as PERIPHERAL NERVE SHEATH TUMOR. Definite histopathological examination showed paucicellular neoplasm composed of round to elongated oval cells arranged in sheets in a fibrillary matrix with ill-defined perivascular pseudorosettes. All these features are characteristic of tanycytic ependymoma. Immunohistochemistry showed characteristic "Dot and Ring positivity" for epithelial membrane antigen (EMA). There was diffuse positivity for glial fibrillary acidic protein (GFAP) and vimentin. The tumor was sparsely positive for S100.
After surgery, pain was the first symptom which improved at second postoperative day. Motor symptoms were starting to improve from sixth postoperative day (Right side 4; Left side 4+). Her symptoms were relieved completely at her first follow up (1 month). Postoperative imaging showed small pseudomeningocele without any residual lesion. As the tumor was totally excised, radiotherapy was not given.
Patient was discharged from the hospital after suture removal. She has been in regular follow up without any complication or recurrence till now (18 months since surgery).

**DISCUSSION:**
Tanycytic ependymoma is a rare fibrillary variant of ependymoma. The term tanycytic ependymoma was coined by Friede and Pollak in 1978. The cell of origin is tanycyte which is a bipolar cell with the long process within neuropore, bridging the ependymal lining with capillary wall. These tumors more commonly occur in spinal cord especially in cervical cord. Tanycytes are usually located near lateral ventricles, 4th ventricle and along spinal cord.

In spinal cord, tanycytic ependymoma usually occurs in intramedullary location though extramedullary tanycytic ependymoma has been reported. MR imaging is the investigation of choice for pre-operative diagnosis. Surgical excision is the preferred treatment. The excision should be complete as far as possible and adjuvant therapy is not needed if total excision is done. Postoperative radiotherapy can be given for partially or subtotally resected tumors and for recurrence. These tumors belong to WHO grade II.

Histologically these tumors are characterized by spindle shaped cells arranged in cohesive clusters with their bipolar long process coursing away from the vessel walls. Usually these tumors have low to moderate cellularity with infrequent nuclear pleomorphism and mitotic figures. The perivascular pseudorosette characteristic of ependymoma is infrequent and inconspicuous in tanycytic ependymoma. Tanycytic ependymoma may mimic schwannoma and pilocytic astrocytoma histologically often lending to a diagnosis Similarly, the long processes of tanycytic ependymoma resemble those of pilocytic astrocytoma. Again, there are features that differentiate the tanycytic ependymoma cells apart from astrocytoma, such as the absence of Rosenthal fibers, the presence of large ovoid nuclei, tight perivascular packing of the cells, and their isomorphic cellular appearance. Immunohistochemically tanycytic ependymoma show characteristic positivity for EMA (epithelial membrane antigen), GFAP (glial fibrillary acid protein) and VIMENTIN. But they stain negative for S100. Thus it can be distinguished from schwannoma(S100-positive; GFAP-negative) and pilocytic astrocytoma (GFAP – positive; VIMENTIN-negative).
So far less than 25 cases of tanycytic ependymoma have been reported in the world literature to the best of our knowledge. In India less than 5 cases have been reported. This case is presented for its rarity.

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