craniotomy and near total excision of the tumor. The tumor was pinkish gray, very vascular and had areas of necrosis along with thrombosed vessels within. Septum pellucidum was involved and was resected partly along with the tumor. The floor of both lateral ventricles could be appreciated after resection. The right frontal lobe appeared normal intraoperatively. Histopathological evaluation of the resected specimen revealed features of a high-grade tumor comprising of biphasic population of malignant cells. Tumor cells were highly pleomorphic comprising of malignant glial cells including many bizarre tumor giant cells intermixed with bundles of malignant spindle cells. Mitosis was brisk. There was intense endothelial cell proliferation and large areas of palisaded necrosis. Tumor cells showed immunoreactivity for glial fibrillary acidic protein (GFAP) and vimentin [Figures 2a-c]. The patient had a prolonged post-op course due to venous edema which gradually resolved, and he has been subjected to radiotherapy.

Discussion
Lesions of the body of lateral ventricle are commonly attached to the septum pellucidum, and differential diagnosis varies from benign lesion like neurocytoma, subependymomas and meningiomas to more malignant high-grade gliomas. These lesions may erode the septum pellucidum to grow into both lateral ventricles or may grow into one ventricle pushing the septum to the other side,
masquerading as a biventricular lesion. The clinical course usually decides the approach irrespective of the pathology of the tumor. Gliosarcomas are well defined and can have features of both intra- and extra-axial lesions. These tumors are commonly seen as peripheral masses abutting the meninges with dense dural adhesion, exhibiting intense dural enhancement on contrast imaging uneven thick-walled rim or ring enhancement. There can also be an intra-tumoral strip enhancement.\(^2\)

Intraventricular gliosarcomas are extremely rare and aggressive tumors. In spite the aggressiveness, these tumors are usually well defined that aids in complete resection. However, metastasis is more often seen with gliosarcomas then glioblastomas, possibly because of the propensity of the sarcomatous element to disseminate hematogenously.

Trans ependymal spread is known giving rise to ependymal enhancement in imaging.\(^6\) However, the present indexed patient did not have any ependymal enhancement in radiology and the post-operative craniospinal screening was negative for any tumor spread.

Origin of intraventricular gliosarcoma is still a matter of speculation. Gliosarcoma in general is presumed to have a common precursor cell, which subsequently differentiates histogenetically into glial and sarcomatous components.\(^4\) The glial elements are high-grade lesions demonstrating numerous mitosis resembling glioblastomas. Occasionally ependymoma has been observed to undergo transformation into gliosarcoma.\(^3\) The biopsy in our index patient did not show any feature suggestive of ependymoma.

It has been speculated that the subependymal portion may
undergo a malignant transformation and protrude inside a ventricle. The tissue along the septum may be involved resembling a true intraventricular tumor. Gliosarcomas, like glioblastomas, have a very poor prognosis with an average survival of 6-14 months.[6]

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Conflicts of interest
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References