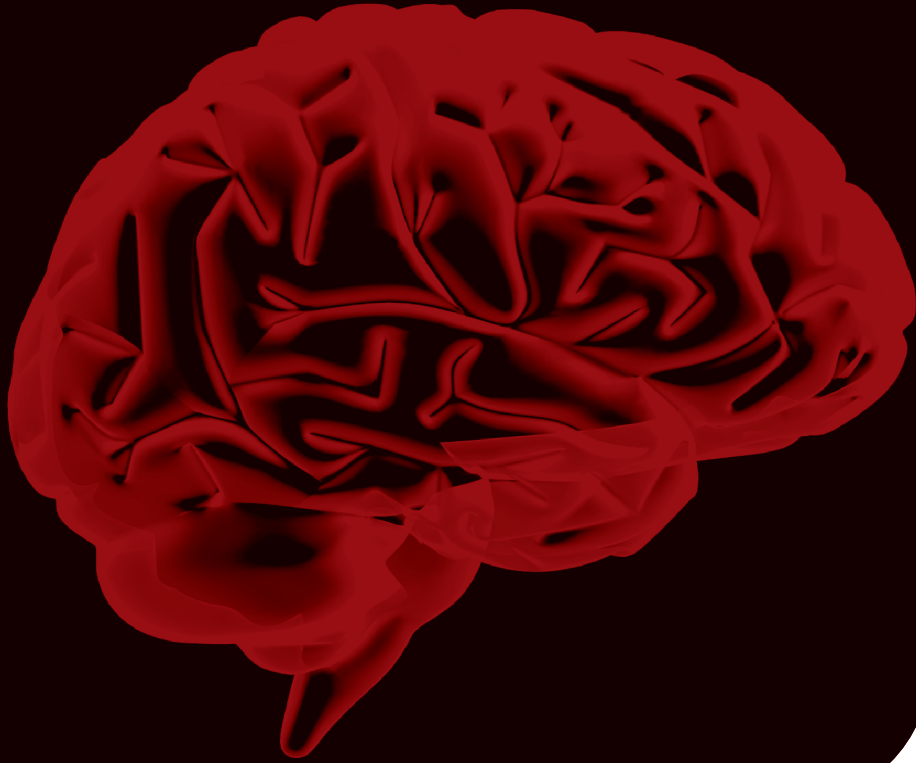


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## Intraventricular melanoma metastases

Sir,

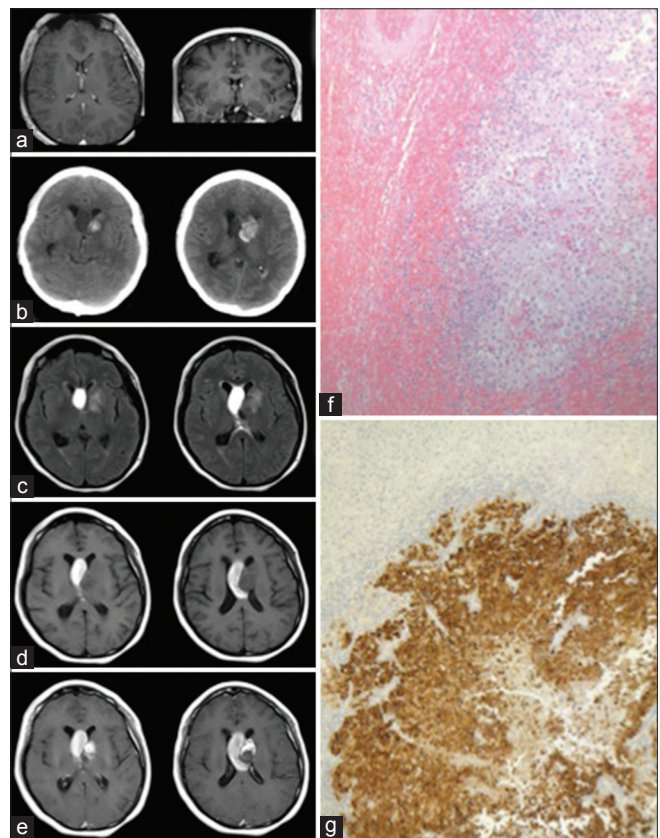
Intraventricular spread of cutaneous melanoma is a rare occurrence.<sup>[1-5]</sup> We report a case of subependymal metastasis of melanoma presenting with intratumoral bleed presenting 10 years after the diagnosis of the primary tumor.

A 60-year-old woman presented with a 10-day history of asthenia, depression, and occasional headache and vomiting without any neurological deficit. Computed tomography (CT) scan showed a 3 cm mass in the septum pellucidum, consistent with hemorrhage. Blood was also detected in the third ventricle and in the occipital horn of the left lateral ventricle. Contrast magnetic resonance imaging (MRI) showed a T1-, T2-hyperintense mass lesion enlarging the septum pellucidum cavity. An intraventricular left parasagittal nonhomogeneously enhancing mass was also noted [Figure 1]. Medical history revealed a previous surgery in 2000 for melanoma of left knee. During the scheduled follow-up, the patient underwent a second surgery in 2007 to remove a local relapse and resect regional lymph nodes. Brain CT scan in 2001 was reported normal. An MRI performed at another hospital in 2010 showed a 3 mm contrast-enhancing subependymal lesion, which had been overlooked, at the level of the head of the left caudate nucleus [Figure 1a]. The mass was exposed via an interhemispheric transcallosal approach. A chronic hematoma was found splitting the two leaves of the septum pellucidum. After aspiration of the hemorrhage, a dark brown mass was noted. The lesion was adherent to the left caudate nucleus and to the septum pellucidum and it was totally resected. Postoperative course was uneventful. Histology of the lesion showed sheets of neoplastic cells with large eosinophilic cytoplasm and atypical nuclei with large nucleoli, along with hemorrhagic areas. Mitotic activity was high. Immunoreactivity for melanocytic marker HMB45 (+++) was strongly positive, and immunoreaction for cytocheratin marker MNF116 was negative [Figure 1f-g]. Based on these findings, the diagnosis was metastatic melanoma. The patient underwent fractionated radiotherapy with 30 Gy 3 weeks after surgery. A total body CT scan performed after the adjuvant treatment did not show any pathological enhancement.

Although melanoma frequently spreads to the brain, intraventricular location has been rarely reported [Table 1].<sup>[1-5]</sup> Despite the possibility that some of the reported primary melanomas can be secondary

to a cutaneous melanoma, which ultimately regressed, the occurrence of an intraventricular metastasis is still exceptional.<sup>[1,2,6-9]</sup> Majority of the reported tumors arises from the choroid plexus and are located in the lateral ventricles.<sup>[1,3-5]</sup> Symptoms are those of elevated intracranial pressure. A minimally invasive neuroendoscopic biopsy followed by adjuvant therapy is the most common reported treatment.<sup>[2,4,5]</sup>

Our case is particularly interesting because of imaging features from the primary melanoma diagnosis until the detection of the intracerebral metastasis 10 years later. Although it is well-known that melanoma can spread even after many years, this patient demonstrates how a small brain metastasis can present with bleeding 10 years after the diagnosis of primary cutaneous melanoma. It is also worth noting that the bleeding occurred in the septum pellucidum, though lateral wall of left lateral ventricle was the location of the metastasis. Based on the imaging findings in this case, we postulate that a subependymal metastasis can



**Figure 1:** (a) Axial and coronal contrast-enhanced magnetic resonance (MR) images performed 1 year before admission. (b) Axial nonenhanced contrast enhanced scan at the level of the frontal horns of the lateral ventricles, (c) FLAIR axial MR images, (d) nonenhanced T1 MR images, and (e) enhanced T1 MR images showing an enlarged cavum septi pellucidum and a left hemorrhagic partially intraventricular lesion with a blood level in the ipsilateral occipital horn. (f) Hemorrhagic area with sheets of neoplastic cells (E and E, x100 magnification). (g) HMB45-immunoreactive neoplastic cells (x50 magnification)

**Table 1: Metastatic intraventricular melanoma: Literature review**


	Sex, age	Location	Symptoms	Primary tumor	Time after primary years	Other locations	Treatment	Outcome
Das Gupta 1964 <sup>[1]</sup>		Choroid plexus						
Gaab 1999 <sup>[2]</sup>	M, 62	3 <sup>rd</sup> ventricle, midbrain	Drowsiness, confusion				Neuroendoscopic biopsy, ETV	5 days, died
Escott 2001 <sup>[3]</sup>	F, 31 M, 32	Lateral ventricles Left ventricle, choroid plexus	Headaches	Right thigh	2	Lung, liver	Gamma knife	
Khoshyomn 2002 <sup>[4]</sup>	M, 73	Multiple nodules of lateral, third, fourth ventricles	Headache, nausea, vomiting	Right shoulder with negative axillary node	36	No	Neuroendoscopic biopsy of lateral ventricle lesions, radiotherapy, chemotherapy (methotrexate, cytosine arabinoside)	
Cipri 2009 <sup>[5]</sup>	M, 22	Septum pellucidum	Intermittent headache, vomiting, disequilibrium	Unknown		Left inguinal, bilateral suprarenal, left bronchopulmonary parailar	Neuroendoscopic biopsy, pellucidostomy, VP-shunt, stereotactic radiosurgery, chemotherapy (TMZ, thalidomide) for systemic locations	
Present case	F, 60	Left lateral ventricle	Headache, vomiting, confusion	Left knee	10	No	Surgery, chemotherapy, radiotherapy	8 months, no recurrence

ETV - Endoscopic third-ventriculostomy, TMZ - Temozolomide, VP-shunt - Ventriculo-peritoneal shunt

have a preferential way for local invasion along the ependymal layer. This can explain the fluid collection between the two leaves of the septum pellucidum in our patient.

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## References

1. DasGupta T, Brasfield R. Metastatic melanoma. A clinicopathological study. *Cancer* 1964;17:1323-39.
2. Gaab MR, Schroeder HW. Neuroendoscopic approach to intraventricular lesions. *Neurosurg Focus* 1999;6:e5.
3. Escott EJ. A variety of appearances of malignant melanoma in the head: A review. *Radiographics* 2001;21:625-39.
4. Khoshyomn S, Braff SP, McKenzie MA, Florman JE, Pendlebury WW, Penar PL. Metastatic intraventricular melanoma. Case illustration. *J Neurosurg* 2002;97:726.
5. Cipri S, Mannino R, Cafarelli F. Metastatic melanoma of the septum pellucidum mimicking a colloidal cyst of the third ventricle. A novel case. *J Neurosurg Sci* 2009;53:125-9.
6. Beatty RA. Malignant melanoma of the choroid plexus epithelium. Case report. *J Neurosurg* 1972;36:344-7.
7. Shuangshoti S, Paisuntornsook P, Netsky MG. Melanosis of the choroid plexus. *Neurology* 1976;26:656-8.
8. Lana-Peixoto MA, Lagos J, Silbert SW. Primary pigmented carcinoma of the choroid plexus. A light and electron microscopic study. *J Neurosurg* 1977;47:442-50.
9. Arbelaez A, Castillo M, Armao DM. Imaging features of intraventricular melanoma. *AJNR Am J Neuroradiol* 1999;20:691-3.