

# BILATERAL CHOROID PLEXUS PAPILLOMA OF LATERAL VENTRICLES

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**Abstract-** Choroid plexus papillomas are rare intracranial tumors, accounting for less than 1% of all intracranial tumors in adults. However, they are relatively more common in children and constitute 1.5 to 4% of childhood intracranial tumors. In children, choroid plexus papillomas are predominately located in the lateral ventricles, followed by the fourth and third ventricles and, rarely, in the cerebellopontine angle. Bilateral choroid plexus papillomas of lateral ventricles are very rare and only a few cases have been reported. Here we report a 10 year old boy who was admitted for chronic headache and vomiting of 6 months duration. Brain imaging showed bilateral tumor in the lateral ventricles. The patient underwent surgery and histopathological study certified the diagnosis of choroid plexus papilloma.

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**Key words:** Intraventricular tumor, choroid plexus papilloma, children

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## INTRODUCTION

Intraventricular lesions in children may arise from a variety of pathologies, including subependymal giant cell astrocytoma, ependymoma, metastasis, choroid plexus carcinoma, choroid plexus papilloma (CPP) and colloid cyst (1-3).

Of these, choroid plexus tumors account for approximately 3% of all primary brain tumors in children. The majority of these tumors (up to 90%) are CPPs (2, 4). In 67 to 75% of cases, choroid plexus tumors are located in the lateral ventricles, 15% in the fourth ventricles and 8% in the third ventricles (2, 4, 5). Bilateral choroid plexus papillomas of lateral ventricles are very rare and only a few cases have been reported (4).

Here we add one more to these few cases and review the literature on this topic.

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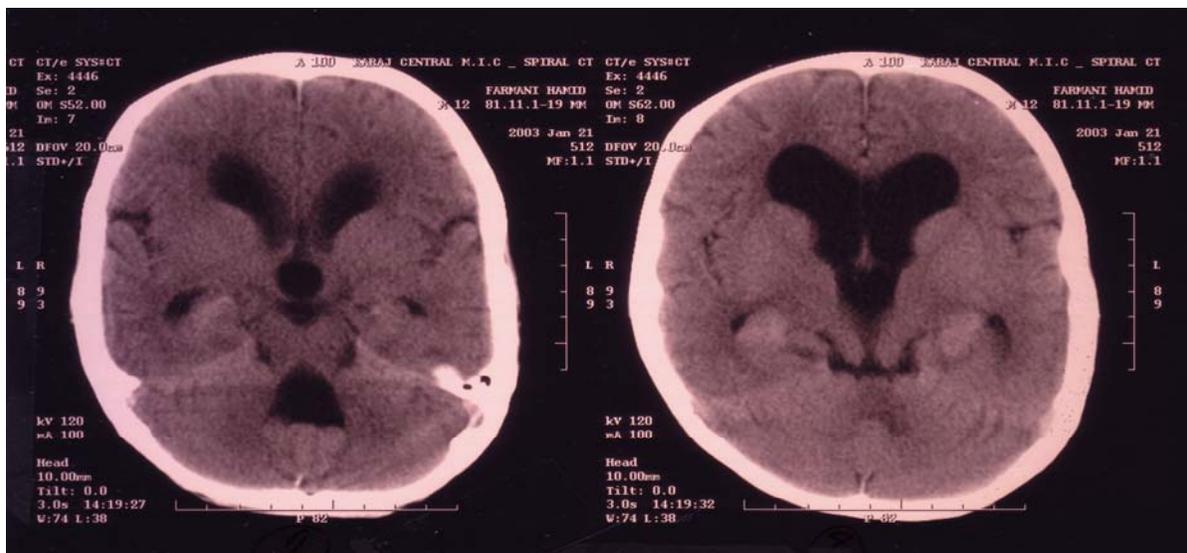
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## CASE REPORT

A 10 year old boy was admitted to our institution with chief complaints of headache and vomiting. He was symptom free until six months before admission. Since then, he had developed a progressive generalized headache worsening at night and making the patient seeking medical advice. There was no relevant past medical history including drug abuse or seizure disorder. Neurological examination on admission was normal. He had a head circumference of 57 cm which followed 95 percentile curve for his age. He weighed 31 kg and his height was 130 cm, both of which were within normal limits (25-50 percentile curves). He also had poor school performance and looked unhappy. Brain computed tomography (CT) scan demonstrated bilateral tumor in the lateral ventricles (Fig. 1). Magnetic resonance imaging (MRI) disclosed a bilateral intraventricular tumor in the lateral ventricles causing hydrocephalus (Fig. 2). A presumptive diagnosis of CPP was made. The patient felt better on acetazolamide, 125 mg TDS, and was referred to neurosurgery service for tumor resection. Surgical procedure and histopathological study certified the diagnosis of CPP. In follow up, the patient was doing well 12 months after surgery.

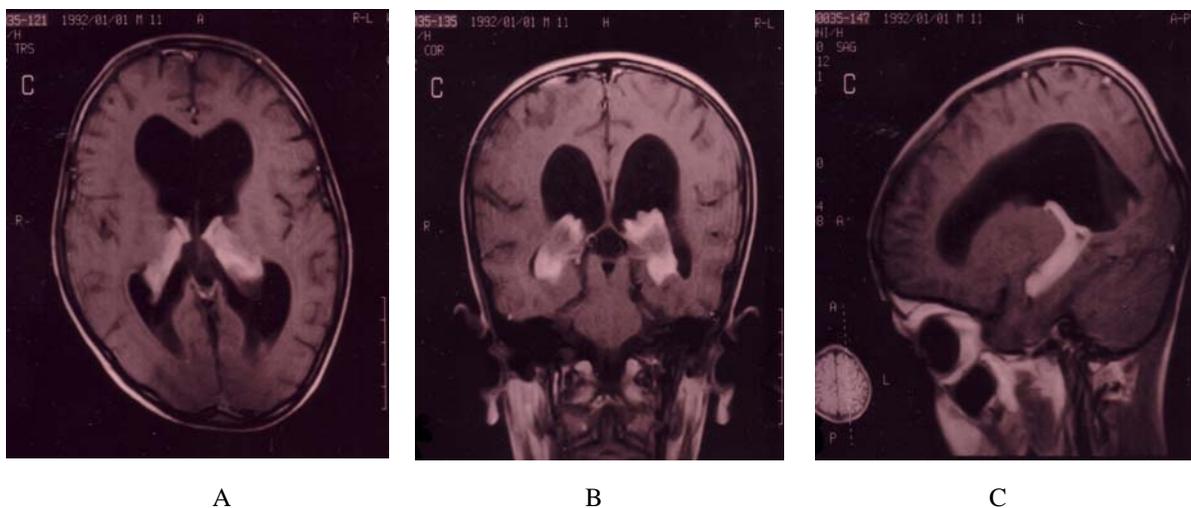


**Fig. 1.** Axial non contrast computed tomography scan demonstrating bilateral tumor of the lateral ventricles and hydrocephalus.

## DISCUSSION

CPPs are rare tumors that are confined to areas in which the choroid plexus is normally located, accounting for less than 1% of all adult and 1.5 to 4% of childhood intracranial tumors (1, 6-8). CPPs can be found at all ages; however the majority (70%)

occurs in children less than 2 years of age (1, 6, 8, 9). In children it usually arises in the lateral ventricles followed by the 4th and 3rd ventricles and rarely in the cerebellopontine angle (8, 9). Matson and Crofton have reported 16 cases of CPP and collected another 67 from the literature, but only 6 of 83 patients had bilateral tumors (10).



**Fig. 2.** Axial (A), coronal (B) and sagittal (C) enhanced magnetic resonance imaging demonstrating a bilateral lobulated enhancing mass in the lateral ventricular region.

## Bilateral choroid plexus papilloma

Erman *et al.* reviewed 245 cases of CPPs, 11 of their own and 234 from literature, but just 6 of them were bilateral (4).

CPPs should be distinguished from bilateral villous hypertrophy of choroid plexus. Both lesions have similar histopathologic features and are differentiated by CT scan and MRI findings, which show dense and homogenously enhanced lesion and by their tendency to extend that leads to hydrocephalus, which usually resolves after complete resection (2, 4).

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