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Case Report

Primary choriocarcinoma of the bilateral basal ganglia presenting in a teenaged male

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ABSTRACT

Primary intracranial choriocarcinoma (PICCC), a type of germ-cell tumor, is a very rare primary tumor of the central nervous system that generally arises in the pineal or suprasellar region. We present a case of a teenage boy with PICCC of the bilateral basal ganglia, an anatomic site for which we were unable to find the previous reports. We offer discussion of the differential diagnosis, imaging characteristics, and prognosis of PICCC and germ-cell tumors of the basal ganglia, in the hope that it will increase awareness and allow for early detection.

Introduction

Primary intracranial choriocarcinoma (PICCC) is a very rare, highly malignant type of germ-cell tumor (GCT). It accounts for a small fraction of all intracranial GCTs and is typically located in the pineal and suprasellar regions [1]. Rarely, PICCC and other GCTs can arise in other sites, such as the basal ganglia and thalami [2,3]. PICCC involving the bilateral basal ganglia is exceedingly rare and to our knowledge has not been previously reported in the literature. We report a patient with bilateral PICCC in whom magnetic resonance imaging (MRI) was performed.

Case report

A 14-year-old previously healthy Vietnamese boy with no significant past medical history developed behavioral changes, including inattention, 2 years prior to presentation which lead to an initial diagnosis of attention-deficit hyperactivity disorder. The patient's symptoms did not improve with medical therapy, and he was subsequently referred to a psychiatrist due to deteriorating academic and social functioning, apathy, and anhedonia. The psychiatrist noted left ptosis, disconjugate gaze, and subtle left lower facial paresis, and the patient was referred to a neurologist. Approximately

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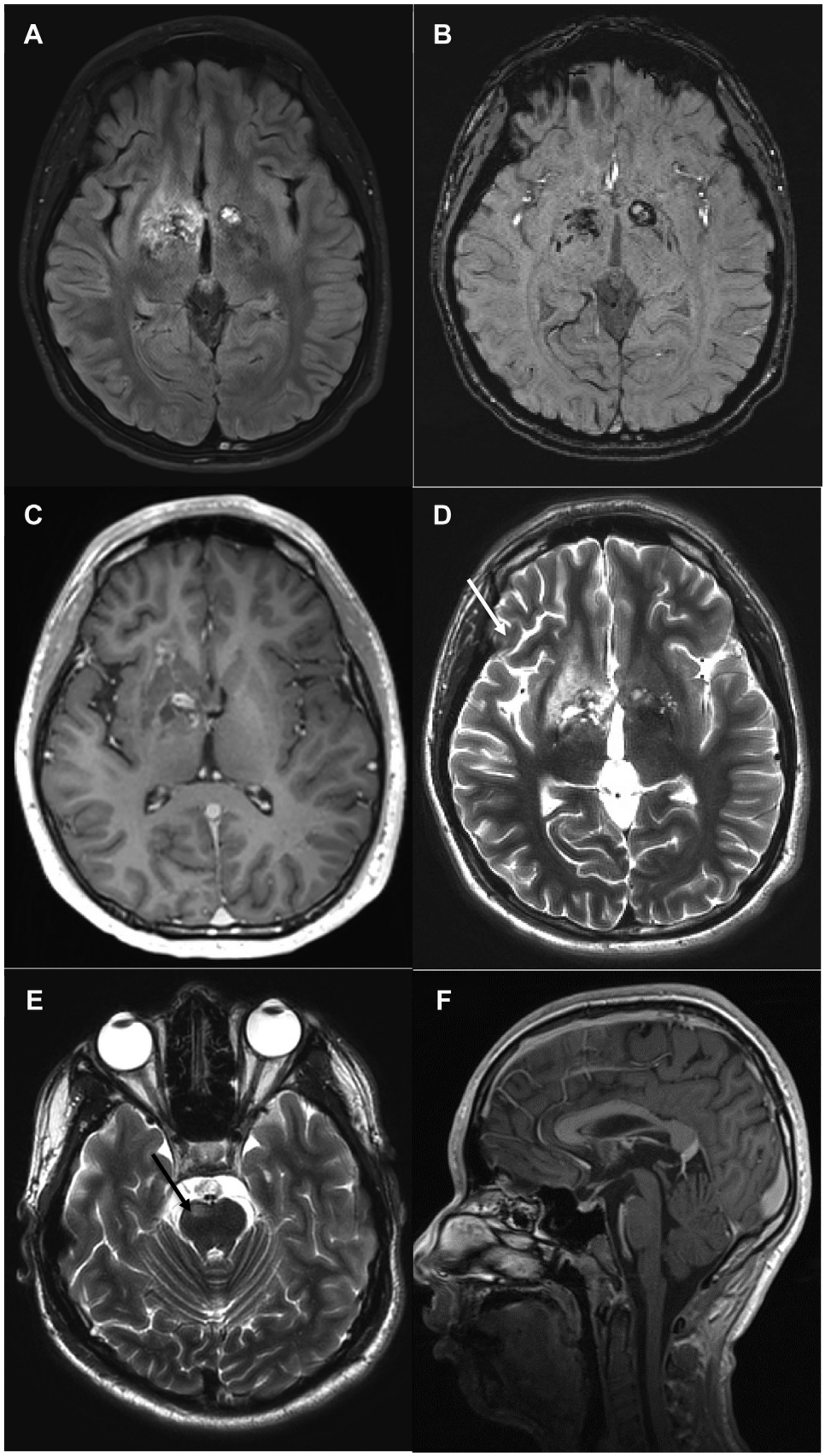

Fig. 1 – Baseline MRI in a 14-year-old boy with progressive cognitive decline, behavioral changes, and left hemiparesis. Axial FLAIR image demonstrates FLAIR hyperintense lesions in the bilateral basal ganglia (A) with associated signal abnormality on axial SWI image indicating iron or hemosiderin (B). The right basal ganglia lesion demonstrates abnormal