

**Case Report**

**HEMANGIOBLASTOMA OF CEREBRAL CORTEX-UNUSUAL PRESENTATION AND REVIEW OF LITERATURE**

**\*Manju Raghava, Utsav Joshi and Abha Mathur**

*Department of Pathology, Metro MAS Hospital & Heart Institute, Jaipur, Rajasthan*

*\*Author for Correspondence*

**INTRODUCTION**

Hemangioblastomas are tumors of central nervous system that originate from the vascular system usually during the middle age. The large majority of hemangioblastoma arise within cerebellum and produce the neurologic manifestation of an expanded posterior fossa mass (David, 1991). We present an unusual presentation of hemangioblastoma arising from frontal lobe of cerebral cortex, in a 50 yrs old female.

**Keywords:** *Hemangioblastoma, CNS, Cerebral Cortex*

**CASES**

A 50 yrs old, diabetic, hypertensive female presented with history of memory loss, altered sensorium, gradual loss of scalp hair, bulging of forehead, difficulty in urine voiding since one year, and Right hemiparasis-2 days.

**Investigation Revealed**

CBC, liver function test and kidney function test- within normal limits. Prothrombin time- slightly raised. Sonography abdomen revealed: Moderate fatty liver, normal gall bladder, pancreas, spleen and kidney. CT head revealed: Large irregular poorly enhancing hypodense area with gross mass effect suggestive of right frontal mass.

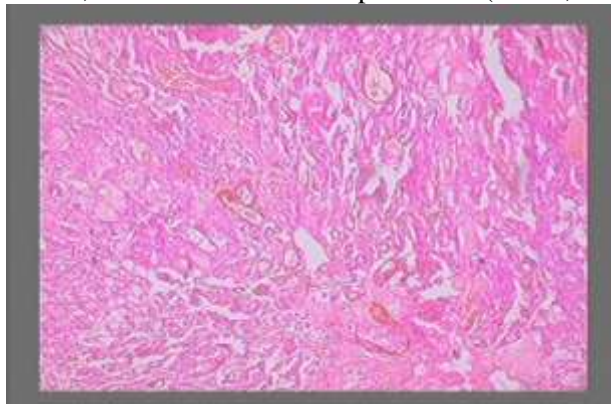
MRI: Revealed well defined extra axial SOL in right. frontal lobe having base towards falx showing herniation measuring 30x42x28 mm. Contralateral midline shift, suggestive of parafalcine meningioma.

Grossly: The tumor is circumscribed nodule having reddish brown and yellow coloration.

Microscopy: Hematoxylin-Eosin stained sections reveal anastomosing, network of delicate capillary like channels supplied by feeding vessels of large caliber. Stromal cells have a pale cytoplasm having vacuolated appearance.

**REVIEW OF LITERATURE AND DISCUSSION**

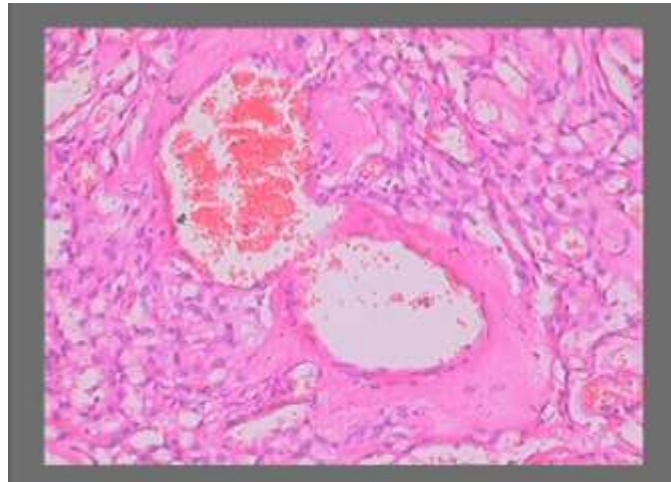
Hemangioblastomas are the rarest central nervous system tumor, accounting for less than 2%. Hemangioblastoma usually occurs in adults. Man and women are approximately at the same risk. They usually occur in either side of cerebellum, the brain stem or the spinal cord (David, 1991; Richard *et al.*, 1998).



**Figure 1: H&E Section reveal anastomosing network of capillary channels supplied by feeding vessel (100x)**

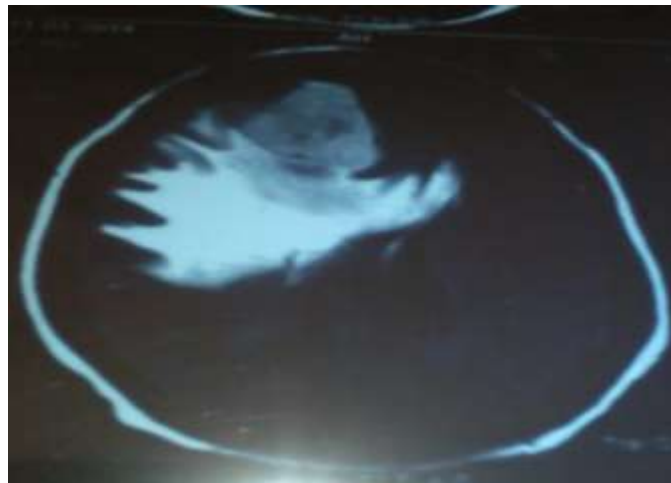
**Case Report**

Supratentorial hemangioblastomas are distinctly rare. Sporadic case reports have appeared in the literature. These may occur in the brain parenchyma of frontal, parietal, temporal or occipital lobes in the corpus callosum or basal ganglia, along the walls of lateral and third ventricles in the choroid plexus and leptomeninges (Karabagli *et al.*, 2007).



**Figure 2: H&E Section reveal anastomosing network of capillary channels supplied by feeding vessel (400x)**

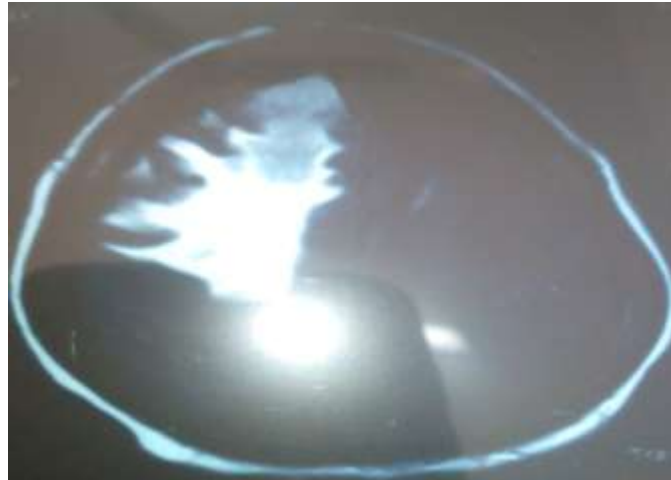
20-25% of all reported case of hemangioblastomas has been encountered as a part of Von Hippel-Lindau disease which is an autosomal dominant disorder (Aldape *et al.*, 2007). In our case patient did not have any element of VHL complex namely hemangioblastoma of retina, cysts of kidney, pancreas and liver, pleochromocytoma etc., as patient was thoroughly investigated for any other element.



**Figure 3: CT Head- Large irregular poorly enhancing hypodense area in right frontal lobe**

Diagnosis of hemangioblastoma is primarily made with a CT scan. Although the radiologic features of supratentorial lesion may closely resemble those of hemangioblastoma in the cerebellum, these tumors are seldom entertained in the differential diagnosis, because of its rarity in. Supratentorial compartment, same is seen in our case where it was reported as meningioma on CT scan (Russel and Rubinstein, 1989).

**Case Report**



**Figure 4: CT Head- Large irregular poorly enhancing hypodense area in right frontal lobe**

**REFERENCES**

- Aldape KD, Plate LH, Vortmeyer AO, Zagzag D and Neumann HPH (2007).** Haemangioblastoma. In: *WHO Classification of Tumors of the Central Nervous System*, edited by Louis DN, Ohgaki H, Wiestler OD, Cavenee Wk (Lyon, IARC) 184-186.
- Karabagli H, Karabagli P, Alpman A and Durmaz B (2007).** Congenital, supratentorial cystic hemangioblastoma. Case report and review of the literature. *Journal of Neurosurgery (6 supplpediatrics)* **107** 515-518.
- Louis David N (1991).** *WHO Classification of Tumors of the Central Nervous System* (IARC).
- Richard S, Campello C, Taillandier L and Parker F (1998).** Hemangioblastoma of the central nervous system in von Hippel–Lindau disease. *Journal of Internal Medicine* **243**(6) 547-553.
- Russell DS and Rubinstein LJ (1989).** *Pathology of Tumors of the Nervous System*, 5<sup>th</sup> edition (Baltimore, Williams & Wilkins).