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Pituitary Stalk Ganglioglioma an Uncommon Entity: A Case Report

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Abstract Ganglioglioma is a well known entity in neurosurgery but its presentation in pituitary stalk is seen uncommonly. We present here a 35 year old lady with complaints of decreased vision, amenorrhea and headache. Examination revealed bitemporal heminopia. MRI confirmed a pituitary stalk lesion with optic tract compression. A pterional craniotomy was done and tumor was excised. Histopathology revealed it to be ganglioglioma WHO grade I. Patient is doing well under follow up with endocrinology.

Keywords: *pituitary stalk ganglioglioma*

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1. Introduction

Ganglioglioma is a low grade tumor seen commonly in superatentorial compartment. Most commonly seen in young population. Seizures are a common presentation. But pituitary stalk involvement alone is rarely seen. We herewith present a young lady with pituitary stalk ganglioglioma.

2. Materials and Methods

This 35 year old lady presented in our hospital with secondary amenorrhea, headache and decreased vision. Examination revealed bitemporal heminopia. Lab revealed high prolactin going with stalk effect. Patient underwent a CT and followed by an MRI brain. Imaging revealed a small rounded lesion in the pituitary stalk with mild contrast enhancement. It was causing adjoining optic pathways compression. Pituitary hypophisitis was kept high a possibility and neoplasm less likely. Figure 1 and Figure 2 reveal the images.

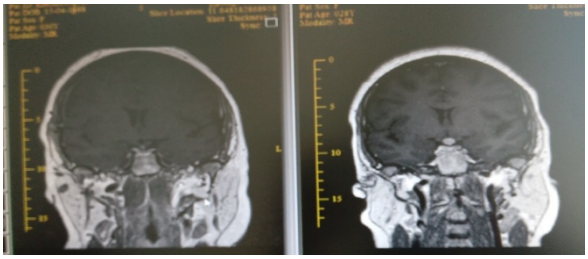

Figure 1. Pre and post operative coronal images of the pituitary stalk ganglioglioma

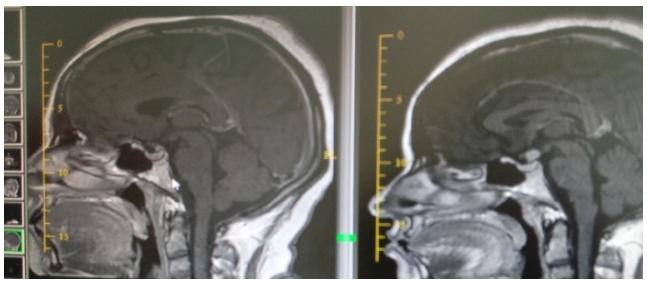

Figure 2. Pre and post operative sagittal images of the pituitary stalk ganglioglioma

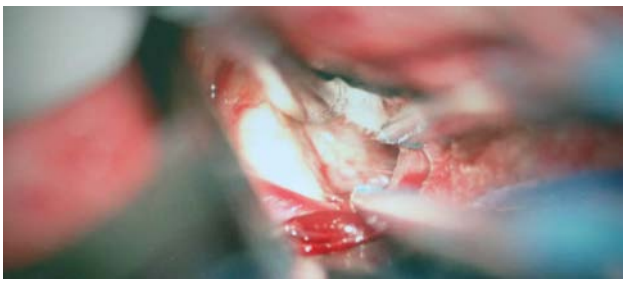

Figure 3. Pitutary stalk ganlgioglioma intraoperative picture

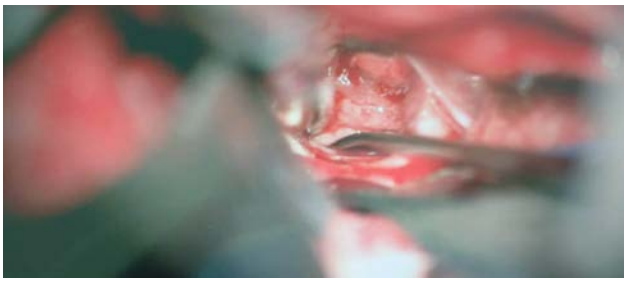

Figure 4. Lesion being excised

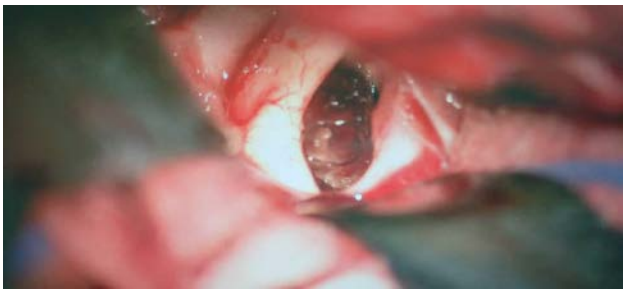

Figure 5. After excision of lesion from opticocatotid cisterns

3. Results

The patient was explained in detail the type of lesion, type of possibilities, risks and benefits of surgery and once patient and family was on board patient underwent a right pterional craniotomy and via carotico optic and interchiasmatic approach a piece meal microscopic excision of greyish soft moderately vascular lesion was done safeguarding the surrounding structures.

Postoperative period was uneventful. After 1day stay in ICU was shifted to ward once postoperative scan was satisfactory. Patient was discharged home with advice to follow with endocrine department. Histopathology to our surprise revealed lesion to be ganglioglioma as per HPE number H1804766.

Patient was followed in OPD with a MRI as per Figure 3. Patient is planned for a yearly follow up with MRI.

4. Discussion

In 1998 Fehn M reported a case of ganglioglioma in neurohypophysis with vasopresin secretion [1]. In 2008 Scheithauer BW described in detail the pathophysiology of the ganglioglioma in neurohypophysis with management of their case [2]. In 2018 Hong Y descibed another case of ganglioglioma of adenohypophysis which was mimicking as pitutary adenoma but histopathology confirmed the diagnosis [3]. Ganglioglioma are also reported in other uncommon sites like in 1998 Faillot T reported a ganglioglioma in pineal region [4]. Other uncommon tumour in infundibulum is granular cell tumour as reported by Polasek JB in 1998 [5]. In 2000 Horvath E descibed in detail the presence of ganglion cells in in posterior pitutary is either by ectopia or transdifferentiation [6].

5. Conclusion

As per literature review cited above pitutary stalk ganglioglioma is an uncommon entity. Our patient happens to be among them. As patient was symptomatic in view of location excision was required. Perioperative period was uneventful. Thus a infrequently seen entity was managed in most appropriate manner.

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