Scholars Journal of Medical Case Reports **ISSN 2347-6559 (Online)**
Sch J Med Case Rep 2016; 4(8):581-583 **ISSN 2347-9507 (Print)**

(An International Publisher for Academic and Scientific Resources) DOI: 10.36347/sjmcr.2016.v04i08.005

Pure intrasellar meningioma located under the pituitary gland: A Case Report

Dr. Nilesh Potdar[1], Dr. Suresh Kumar [2], Dr. Bhavadasan K[3]
[1]M.S., PG 2[ND] yr, [2]M.Ch. DNB Associate professor, [3]M.Ch. HOD
Dept. of neurosurgery, Amala Institute of Medical Sciences, Amala Nagar, Thrissur, Kerala, India

***Corresponding author**
Dr. Nilesh Potdar
Email: dr.nileshpotdar@gmail.com

Abstract: Meningioma are mostly benign intracranial tumor , Subglandular menigiomas located under pituitary gland are extremily rare. Intrasellar meningiomas in the in the subglandular and sub diaphragmatic region originate from dura in sellar floor. Here we reported a case of intrasellar meninningioma located under pituitary gland resected trans nasaly trans sphenoidaly. Its clinically and radiologically mimicking with pituitary macroadenoma. It's important to distinguish preoperatively by using contrast enhancement on MRI for proper surgical approach.
Keywords: Meningioma, intracranial tumor, pituitary macroadenoma.

INTRODUCTION

Meningiomas are mostly benign tumor originating from the arachnoid cap cell[1]. In 1997 Nozalki *et al* describe sub diaphragmatic intrasellar memingiomas that originated from sella turcica two of which only originated from the floor of sellar turcica[2].

Since very few case of intrasellar meningoma from the sellar floor has been reported in the literature.

Although meningiomas can originate from anywhere in the sella turcica but sub glandular meningiomas are extremely rare[3], we reported case of intra sellar menigiomas mimicking pituitary macro adenoma both radiologicaly and clinically we could remove the entire tumor via Traspenoidal Trans nasally approach.

CASE REPORT

42 year female admitted to our hospital with headache since 3 year over frontal area and occasional vomiting without visuals symptoms and memory disturburbance.

On the general physical examination she was vitally stable, conscious oriented and where other neurological examination revealed no abnormality. Routine lab investigation were unremarkable, endocrinological examination were normal, GH -0.246 (normal 0.1-5.2), S cortisol -4.97. Visual field examination revealed no abnormality.

MRI brain revealed the widening of the sella with pituitary gland enlargement measuring 16.6/15.3/18 mm there is evidence of suprasellar extension with optic chiasm appearing commessed and lifted up. Post contrast with heterogeneous enhancement suggestive pituitary macro adenoma with suprasellar and parasellar extension.

Patient underwent trans nasal, trans sphenoidal excision of pituitary tumor, tumor was entirely removed.

Histopathological and immunohistochemical report cell arrange in sheath fascicle and neoplastic cell are round to oval with nuclear enlargement and about eosinophilic cytoplasma cell border indistinct .vascularity is prominent with pseudo papillary pattern one fragments shows fascicle of spindle suggestive meningioma.

On immune histochemistry-vimentin and EMA–positive, symphophysin and MIB–low and Suggestive of meningioma sellar region.

Fig-1: Pre operative sagital cut T2 wedge

Fig-2: Pre operative T1 constrast image

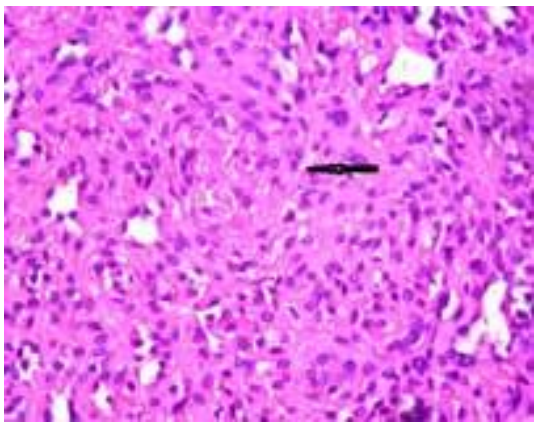

Fig-3: Histopathogical slide (H&E)

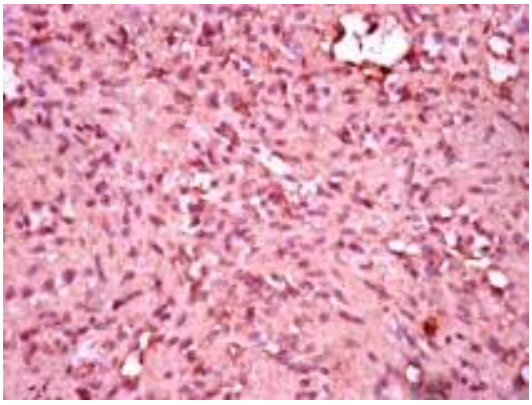

Fig-4: Histopathogical slide, vimentin

DISCUSSION :-

Meningioms can originate from any dural surface, where as 10%-15% of meningiomas arise in parasellar region purely intra sellar meningiomas are rare[1,3].

The majority of intrasellar meningiomas arise from under surface of diaphrama sella but menigiomas originate from the or wall of sella have been reported.

In 1995 Kinjo *et al*[4], classified diaphrasm sellae tumor according to site of origin from the diaphragm

Type A – originated from upper leaf of diaphrasma sellae anterior to the pituitary stalk.

Type B –from the upper leaf of the diaphragm sellae post to pituitary stalk.

Type C-inferior leaf of the diaphrasmaa sellae.

Intra sellar meningiomas may mimic non functioning adenoma in their clinical presentation with primary symptoms being headache, visual disturbances, visual field defect and endocrinological abnormalities. Cases of an interstellar meningiomas mimicking pituitary apoplexy have been reported[3].

Similarly our patient had only headache and no other compression effect on optic nerve and pituitary gland. It is important to differentiate a diaphragm sellae intra and supra sellar meningiomas from the pituitary macroadenoma because they required differentiate surgical approach .craniotomy for memingiomas and trans sphenoidal route for most pituitary adenoma[5].

Cappabianca *et al*, emphasized that most of the intra and suprasellar macraadenomas could be approached by transphenoidal route while diaphragm seller meningioma might required a craniotomy[5].

Kinjo *et al* suggested the trans cranial trans sphenoidal approach because of it wider exposure and safer Hemostasis[4].

Jallo B Benjamin suggested a pterional craniotomy with micro surgical dissection[6].

Wantanabe *et al.*[7], Nagao *et al.*[8], Abel pinzer *et al*.[9], reported intra and suprasellar memingioma .in all these case similar to our case preoperative diagnosis was pituitary adenoma but after histopathological reveales the meningioms.

Presentation of our patient only had head ache and vomiting while above case had compression symptoms on optic nerve and pituitary gland. First surgical approach in all these case similar to our case was trasnasal transphenoinal and we could resect the entire meningiomas in first operation.

Purely intrasellar menigiomas can be extremes difficult to distinguish from adenoma.

Even enhancement characteristics of a pituitary adenoma and meningiomas on CT and MRI may be similar but the enhancement profile of meningiomas may aid in distinguishing them from adenoma as adenoma generally enhance less intensely and more heterogeneously than meningiomas and demonstrate a longer time to peak enhancement on dynamic imaging .

The presence of an enhancing dural tail is not a feature of intrasellar meningiomas. The visualization CSF cleft between tumor and gland uncommon, another finding which favour meningioma is hyperostosis of the floor of seller or bony structure[10].

Prominent vessel may be seen approximate 65 % sellar menigiomas these high degree of vascularity of most meningiomas predisposes to excessive intra operative bleeding during resection which is generally more easily controlled by transcranial approach. And being helpful in reducing intra operative blood loss.

Thus carefull examination of enhanced high quality thin section sagital or coronal MRI of parasellar region will allow the correct pre operative diagnosis in patient with any these tumor, additional using angiographicaly can more helpful for distinguish between these tumor[11].

CONCLUSION

Intrasellar menigiomas are extremely rare and easily confuse with pituitary macroadenomas having similar in clinical symptoms and radiological and endocrinological finding.

Many of author believe pre operative distinguish of these tumor is necessary for selecting appropriated surgical approach.

REFERENCES

1. Marosi C, Hassler M, Roessler K, Reni M, Sant M, Mazza E, Vecht C; Meningioma. Crit Rev Oncol Hematol. 2008; 67(2):153-171
2. Nozaki K, Nagata I, Yoshida K, Kikuchi H; Intrasellar meningioma: case report and review of the literature. Surg Neurol. 1997; 47(5):447-52.
3. Doerfler A, Richter G; Lesions within and around the Pituitary. Clin Neuroradiol. 2008; 18(1):5-18
4. Kinjo T, Al-Mefty O, Ciric I; Diaphragma sellae meningiomas. Neurosurgery, 1995; 36(6): 1082–1092
5. Cappabianca P, Cirillo S, Alfieri A; Pituitary macroadenoma and diaphragm sellae meningioma: differential diagnosis on MRI. Neuroradiology,1999; 41(1):22-26
6. Jallo GJ, Benjamin V; Tuberculum Sellae Meningiomas: Microsurgical Anatomy and Surgical Technique. Neurosurgery, 2002; 51(6):1432-1440.
7. Watanabe M, Toyama M, Watanabe M, Taniguchi Y, Kaneko K, Yokoyama M; A case of intrasellar meningioma with panhypopituitarism and hyperprolactinemia. No Shinkei Geka. 1987;15(8):869-874.
8. Nagao S, Kawai N, Ohomoto T, Oohashi T; A case of intrasellar and suprasellar meningioma with hypopituitarism. No Shinkei Geka. 1990;18(7):637-642.
9. Abe T, Matsumoto K, Homma H, Kawamura N, Iwata T, Nemoto S; Dorsum sellae meningioma mimicking pituitary macroadenoma: case report. Surg Neurol. 1999;51(5):543-546
10. Taylor SL, Barakos JA, Harsh GR 4th, Wilson CB; Magnetic resonance imaging of tuberculum sellae meningioma: Preventing preoperative misdiagnosis as pituitary macroadenoma. Neurosurgery. 1992; 31(4):621-627
11. Jacob JM, Hamsberger HR; Diagnostic angiography and meningiomas. In: O. Al-Mefty Editor, Meningiomas Raven, New York, 1991; 225–241.