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A CASE REPORT: POSTERIOR PITUITARY EVALUATED AS MICROADENOMA IN THE MAGNETIC RESONANCE IMAGING

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Introduction

- The posterior pituitary lobe stores the neurosecretory granules and appears as hyperintense on T1 weighted sagittal magnetic resonance images .
- The pituitary adenoma appears as hypointense on T1 weighted magnetic resonance images.
- We report a case whose posterior pituitary lobe mimicking microadenoma.

Case report

Medical history

- A 20-year-old woman evaluated in Gynecology for oligomenorrhae..
- Magnetic resonance imaging of pituitary showed a nodular lesion on the left parasagittal region measured 3 mm in diameter.

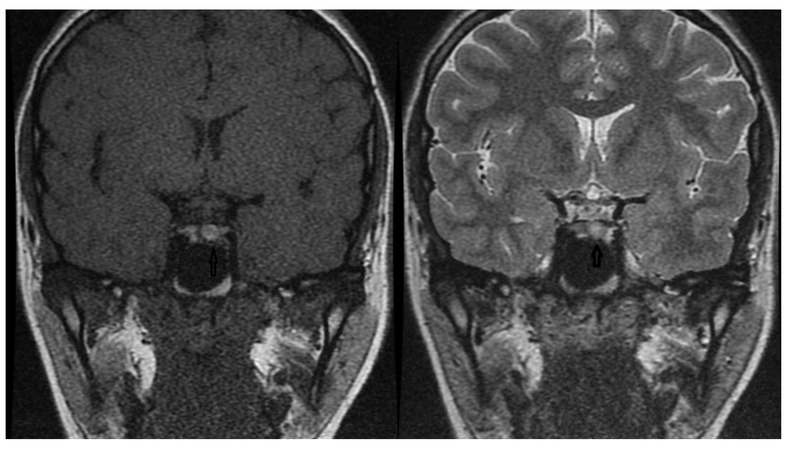

Figure 1A Figure 1B

- The lesion was hypointense on T1 weighted (Figure1A) and little hyperintense on T2 weighted (Figure 1B) images which could not be distinguished from artifactial lesion.
- She was refered to Endorinology.

Laboratory

FSH	4.59	mIU/mL
LH	6.95	mIU/mL
Prolactin	27	ng/mL
FT4	1.12	ng/dL
TSH	1.98	µIU/mL
Cortisol	30.99	µg/dL
ACTH	33.5	pg/mL
1 mg Dex. sup.	0.887	µg/dL
Somatomedin-C	271	ng/mL
GH	1.23	mIU/L

Radiology

- After three months magnetic resonance of pituitary showed a nodular lesion on the left parasagittal posterior region measured 6 mm in diameter.
- The lesion was more hyperintense on T1 weighted images than adenoma and was not taking contrast agent like a cyst.
- The appearance of the lesion could be interfered with fat tissue, sphenoid bone or partial volume artifact.
- The fat-suppressed images were taken; there was no change of intensity on dynamic series and no contour lobulation.
- When axial fat-suppressed images were examined the lesion was identified as the posterior pituitary lobe (Figure 2).

Figure 2

Conclusion

- We report a case of posterior pituitary lobe which was a little asymmetrically thickened and localized on the left parasagittal region.
- This localization caused pseudonodular appearance when surrounded with anterior pituitary lobe on coronal images.
- The posterior pituitary lobe may appear as a hyperintense nodular lesion on T1 weighted images which can be identified with fat-suppressed axial images.
- This is different from the ectopic posterior pituitary which mostly located within the hypothalamus.
- Some anatomical variations may affect the diagnosis of pituitary lesions like suspicious microadenomas.
- The patients may have unnecessary evaluation for a long period.