

# Pituitary Infarct Masquerading as a Pituitary Abscess

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A 64-year-old woman presented with headache for a week. Contrast-enhanced T1-weighted sellar magnetic resonance imaging showed an ovoid intrasellar nonenhancing lesion with peripheral enhancement (Figure 1). The lesion showed intermediate to high signal intensity on diffusion-weighted imaging and restricted diffusion on apparent diffusion coefficient map (Figure 2). Initial differential diagnosis included pituitary abscess and infected Rathke's cleft cyst. Initially, partial removal of the pituitary gland was performed via the transsphenoidal approach. The result of the frozen biopsy was pituitary infarct; thus, the operation was finished. The final pathological diagnosis was also pituitary infarct. Pituitary lesions with intermediate to high signal on diffusion-weighted imaging include pituitary abscess and pituitary infarct.<sup>1,2</sup> A pituitary

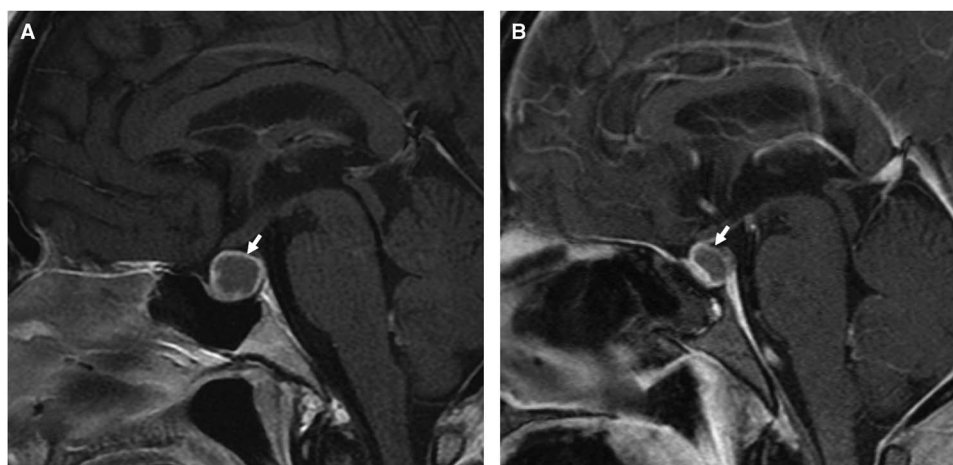
infarct should be considered as a differential diagnosis in the case of pituitary apoplexy.

## DISCLOSURES

None.

## REFERENCES

1. Takayasu T, Yamasaki F, Tominaga A, Hidaka T, Arita K, Kurisu K. A pituitary abscess showing high signal intensity on diffusion-weighted imaging. *Neurosurg Rev.* 2006;29:246-8.
2. Rogg JM, Tung GA, Anderson G, Cortez S. Pituitary apoplexy: early detection with diffusion-weighted MR imaging. *AJNR Am J Neuroradiol.* 2002;23:1240-5.

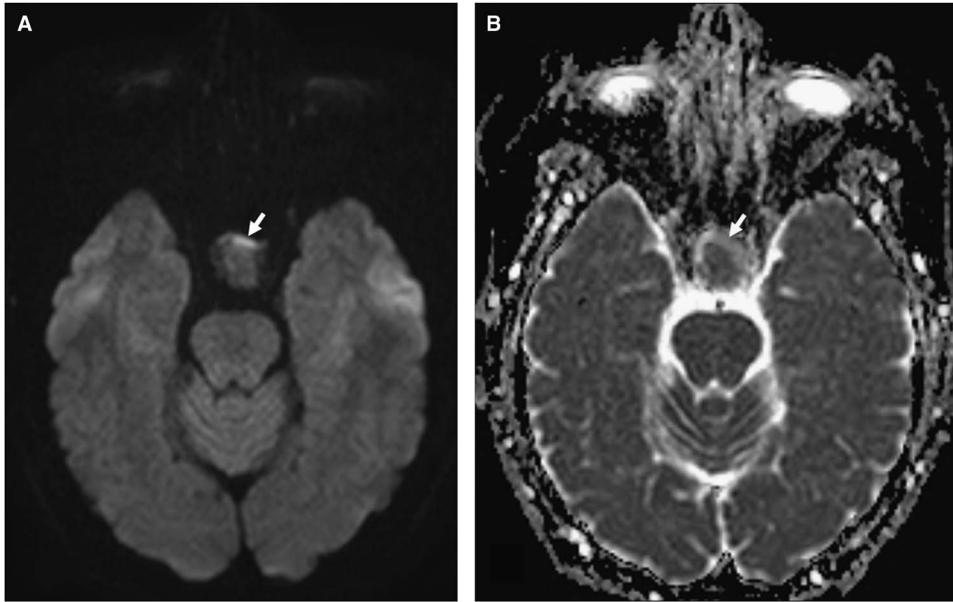


**Figure 1:** (A) Preoperative sagittal contrast-enhanced T1-weighted image shows enlarged pituitary gland with a thin peripheral rim enhancement (arrow). (B) Postoperative contrast-enhanced T1-weighted image shows a decrease in size of the pituitary lesion (arrow).

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**Figure 2:** Diffusion weighted imaging (A) and apparent diffusion coefficient (ADC) map (B). The lesion showed intermediate to high signal intensity on diffusion-weighted imaging and restricted diffusion on ADC map (arrows). This phenomenon is known as pseudonormalization, in which high signal intensity on diffusion-weighted imaging begins to vanish in 1 week after acute infarct. The imaging time point of this patient was 2 weeks after symptom onset.