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Teaching NeuroImages: Sequential MRI of the pituitary in Sheehan syndrome

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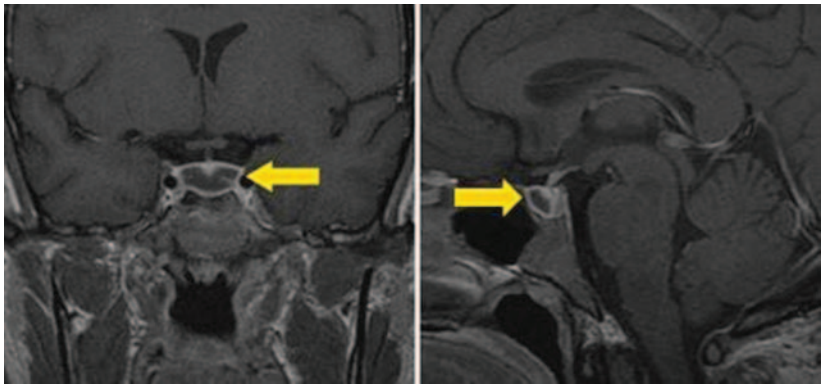
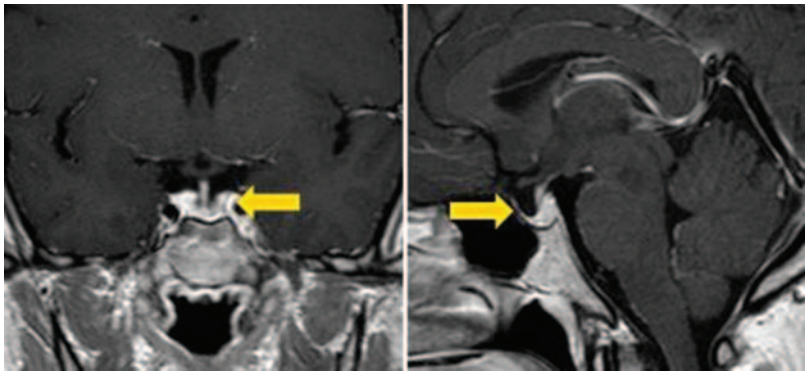
Figure 1 Sheehan syndrome



Coronal and sagittal postcontrast T1-weighted spin-echo images show an enlarged pituitary with rim enhancement and no internal enhancement (arrows). Findings are suggestive of nonhemorrhagic pituitary infarct, i.e., Sheehan syndrome.

Figure 2 Temporal evolution of the pituitary gland in Sheehan syndrome



Coronal and sagittal postcontrast T1-weighted spin-echo images show atrophy of the anterior pituitary gland (arrows) on follow-up MRI 1 year later.

A 32-year-woman with postpartum bleeding was unable to lactate. Investigations revealed hypocortisolism and hypoprolactinemia. MRI revealed an enlarged cystic pituitary suspicious for infarct. Sheehan syndrome is a clinical state of panhypopituitarism resulting from pituitary infarction after a peripartum hypotensive episode.[1,2] In the acute phase, the pituitary is enlarged with homogeneous T1-weighted hypointensity and T2-weighted hyperintensity with rim enhancement (figure 1). Sometimes infarcted areas are interspersed with perfused tissue, causing irregular pituitary enhancement.[1] It is later followed by anterior pituitary atrophy (figure 2).[1,2] The differential is lymphocytic hypophysitis, which may show a similar cystic focus in the pituitary in 5% of patients with subsequent atrophy.[1]

AUTHOR CONTRIBUTIONS

Dr. Morani: drafting/revising the manuscript, study concept or design, acquisition of data. Dr. Parmar: drafting/revising the manuscript, analysis or interpretation of data, study supervision. Dr. Ibrahim: study concept or design, acquisition of data.

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2. Zak IT, Dulai HS, Kish KK. Imaging of neurologic disorders associated with pregnancy and the postpartum period. Radiographics 2007;27(suppl 1):95–108.

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