# Panhypopituitarism secondary to a solitary hypothalamic metastasis

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## DESCRIPTION

A 50-year-old woman with breast cancer and widespread skeletal metastases presented with lethargy, weight gain and memory loss. Blood tests showed panhypopituitarism: thyroid-stimulating hormone 0.17 mU/L (0.35–5.5), free T4 4.2 pmol/L (10–19.8), free T3 1.2 pmol/L (3.5–6.5), luteinising hormone <0.1 μmol/L (16–75 postmenopausal), follicle-stimulating hormone <0.3 U/L (21–140 postmenopausal) and random cortisol 32 nmol/L. Prolactin was also low at 13 mU/L (59–619). She had no biochemical evidence of diabetes insipidus (urine osmolality 280 mOsm/kg, serum osmolality 310 mOsm/kg) and there was no visual field defect.

MRI (figure 1) revealed an enhancing lesion obliterating the hypothalamus with extension into the pituitary stalk. She was treated with palliative radiotherapy (30 G in 10 fractions) to the lesion and hormone replacement with levothyroxine and hydrocortisone. Her lethargy and weight improved temporarily, but memory and cognitive difficulties persisted despite treatment. This could have been due to insufficient control of the intracranial metastases. Unfortunately, the patient's clinical condition worsened in the weeks following treatment, so no further MRI were performed, and she ultimately died from her systemic disease.

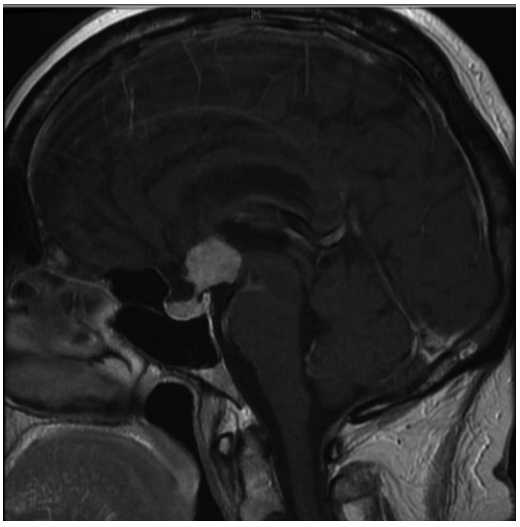

**Figure 1** Sagittal MRI (T1 weighted with gadolinium) showing contrast-enhancing hypothalamic metastasis.

## Learning points

- Panhypopituitarism can present with non-specific symptoms and signs in patients with cancer, and should be considered as part of a differential diagnosis.
- In patients with known malignancy presenting with symptoms of an endocrine disorder, brain metastases should be remembered as an uncommon cause.

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