

# Granulomatosis with polyangiitis presenting as a pituitary lesion

**G**ranulomatosis with polyangiitis is a rare multisystem necrotizing granulomatous inflammation, typically affecting the lungs, kidneys and skin (Nishino et al, 1993). Pituitary involvement is rare, affecting fewer than 1% of cases (Kapoor et al, 2014).

A middle-aged Caucasian lady presented with progressive retro-orbital headache. Magnetic resonance imaging of the brain revealed a sellar lesion suggesting sarcoidosis or metastasis. Pituitary assessment revealed hypothyroidism and hypogonadism. Staging computed tomography showed a right upper lobe lesion (4.6x2.6 cm) with surrounding consolidation. While awaiting tests, empirical intravenous methylprednisolone for sarcoidosis resulted in clinical improvement.

Ten weeks later, the patient re-presented with polyarthritis. cANCA-PR3 (cytoplasmic antineutrophil cytoplasmic antibodies-proteinase 3) was positive, consistent with granulomatosis with polyangiitis. Serum angiotensin-converting enzyme levels were normal.

Pulse cyclophosphamide with azathioprine and prednisolone shrank the pituitary lesion (Figure 1).

Pituitary involvement in cases of with granulomatosis with polyangiitis is rare, typically affecting the posterior pituitary and causing diabetes insipidus. Anterior pituitary involvement is usually later. Immunotherapy remains the mainstay of treatment (Holle et al, 2012).

This case is unique, presenting as headache and anterior pituitary involvement, in contrast to initial multisystem involvement in most cases. **BJHM**

*The authors would like to thank the patient and the University Hospitals of North Midlands NHS*

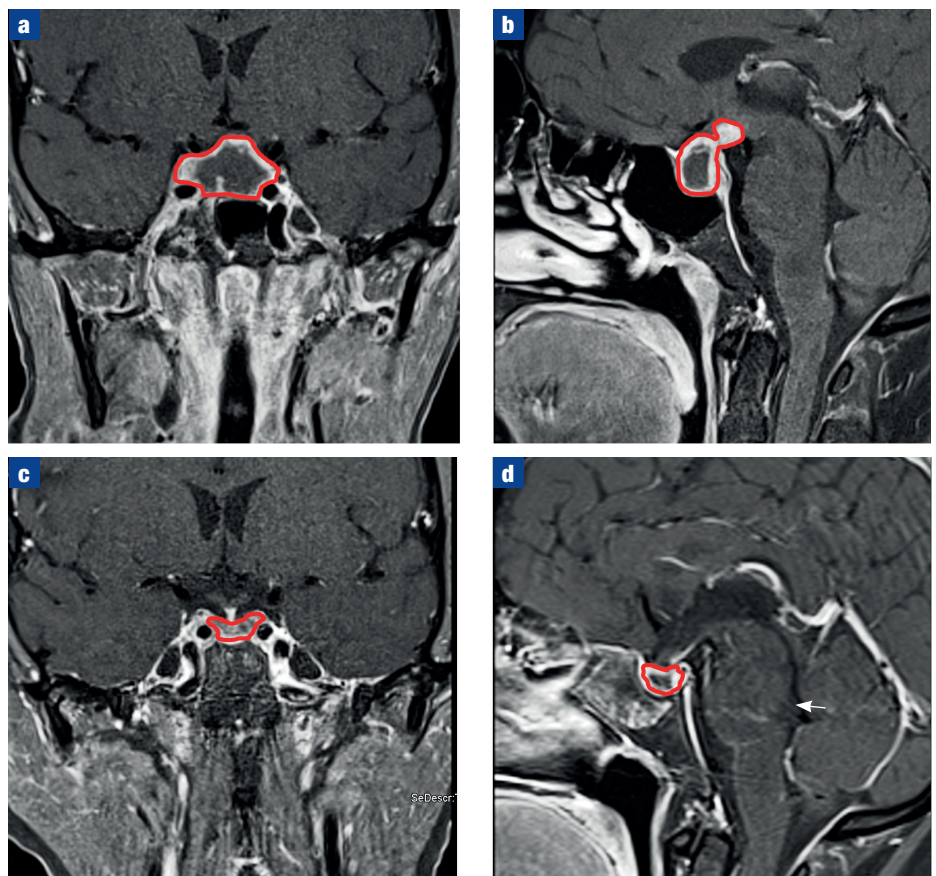
*Trust pituitary multidisciplinary team, especially the neuroradiologists.*

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**Figure 1.** Magnetic resonance imaging of the pituitary with contrast at diagnosis and after treatment. **a.** T1-weighted coronal scan post-contrast at diagnosis. **b.** T1-weighted sagittal scan post-contrast at diagnosis. **c.** T1-weighted coronal scan post-contrast after treatment. **d.** T1-weighted sagittal scan post-contrast after treatment.



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