Temporal arteritis in the absence of headache

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CASE REPORT

A 75-year-old woman was admitted to hospital with diplopia on leftward gaze. She underwent thyroidectomy several years ago for thyrotoxicosis with subsequent hypothyroidism for which she was on thyroxine replacement. A microcytic, hypochromic anaemia had been diagnosed a few weeks before admission. She gave no history of headache, eye pain or visual loss. On examination, she was pale and had a left sixth nerve palsy. Tenderness over the temporal arteries was notably absent. A diagnosis of mononeuritis was made with a differential diagnosis of isolated ophthalmic Graves' disease. Biochemical parameters were as shown in *Table 1*.

Abdominal ultrasound and computed tomography scan of the head were unremarkable; in particular, no swelling of the extraocular muscles was noted. An upper gastrointestinal endoscopy and colonoscopy were performed to investigate the anaemia. A mild *Campylobacter*-like organism test (for *Helicobacter pylori* infection) proved positive for gastritis, and areas of patchy erythematous mucosa of uncertain significance were seen. Temporal artery biopsy was performed 11 days after admission and while awaiting biopsy results, she was commenced on prednisolone 60 mg daily. Histopathology confirmed giant cell arteritis, showing fragmentation of the internal elastic lamina and an inflammatory cell infiltrate including lymphocytes and multinucleate giant cells (*Figure 1*).

Within a week of commencing steroids, her diplopia improved and resolved completely in 10 days. She was discharged on prednisolone 20 mg daily and followed up in the outpatient clinic. She remains on reducing doses of steroids along with etidronate and calcium supplementation.

TABLE 1. Laboratory investigations

	Results
Haemoglobin	8.9 g/dl
Mean corpuscular volume	74.5 fl
Mean corpuscular haemoglobin	22.8 pg
Ferritin, vitamin B_{12}, folate	Normal
Serum electrolytes	Normal
Alkaline phosphatase	189 U/litre (30–160 U/litre)*
Alanine transaminase	52 U/litre (1–45 U/litre)
Gamma glutamyl transferase	83 U/litre (1–45 U/litre)
Thyroid stimulating hormone	2.04 mIU/litre (0.27–4.20 mIU/litre)
Thyroid microsomal antibodies	Positive 1:6400
Erythrocyte sedimentation rate	132 mm/hr in first hour
Plasma viscosity	2.37 cp (1.5–1.72 cp)
Serum electrophoresis	Normal

*Numbers in brackets are normal ranges

INTRODUCTION

Atypical giant cell arteritis (GCA) has been defined as ocular involvement without any systemic signs or symptoms (Hayreh et al, 1998a). Simmons and Cogan (1962) coined the term 'occult temporal arteritis' and stressed the clinical importance of the finding of an elevated erythrocyte sedimentation rate (ESR) in the presence of papillitis or retrobulbar neuritis in the elderly patient. The prevalence of occult temporal arteritis in biopsy-proven patient series varies from 5% to 38% (Desmet et al, 1990; Hayreh et al, 1998a).

In a prospective study of patients with histologically confirmed GCA, 85 (50.0%) of the 170 patients presented with ocular involvement, 83 (48.8%) patients had some degree of visual loss (Hayreh et al, 1998b). Eighteen (21.2%) of the patients with ocular involvement had no systemic symptoms or signs of GCA (Hayreh et al, 1998a).

The authors report a case of occult GCA which presented with diplopia secondary to a left sixth cranial nerve palsy.

DISCUSSION

The authors have described a case of occult GCA presenting with diplopia as the only symptom. The diagnosis of GCA was delayed for 10 days because of the absence of headache and systemic signs. She fulfilled the following American College of Rheumatology GCA criteria: age ≥50 years, Westergren ESR >50 mm/hour in first hour, and superficial temporal artery biopsy consistent with GCA (Hunder et al, 1990). The other two diagnostic criteria noticeably absent in this patient were temporal artery tenderness and headache.

Laboratory abnormalities associated with GCA include microcytic hypochromic anaemia, thrombocytosis, increased plasma viscosity, elevated liver enzymes and acute phase reactants. ESR may be normal in 10–20% of patients. A false-negative biopsy may be dependent on the number and length of biopsies, presence of skip lesions, pathological sectioning techniques and the duration of treatment before biopsy (Bhatti and Tabandeh, 2001).

Transient or constant diplopia because of extraocular muscle involvement, with or without visual disturbances, has been reported in 2–15% of patients with GCA (Hayreh, 1991; Hayreh et al, 1998b). In one series the incidence of diplopia in patients with ocular involvement because of GCA was 5.9%, and has been thought to be a result of ischaemia of the extraocular nerves or possibly of the brainstem (Hayreh et al, 1998b).

Barricks et al (1977) described a patient with GCA who had diplopia

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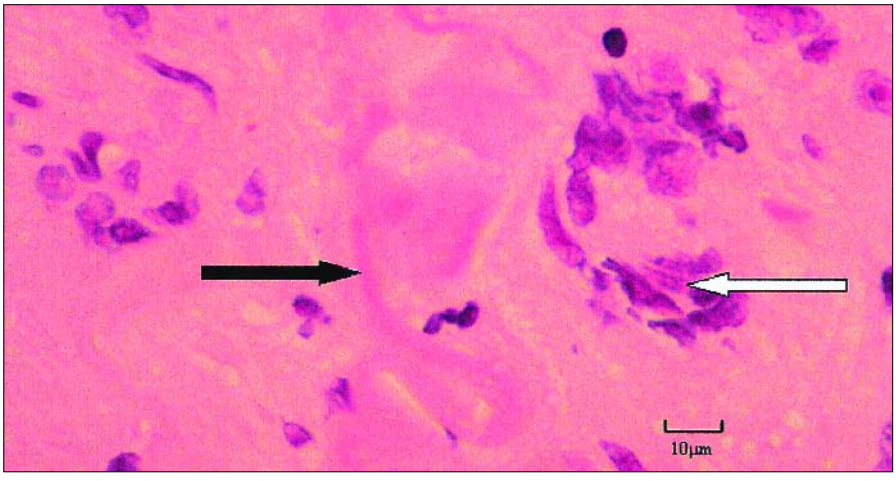

Figure 1. Multinucleate giant cells (white arrow) in close proximity to the internal elastic lamina (black arrow) of the temporal artery.

and ophthalmoplegia as a result of local ischaemia of the extraocular muscles but with no evidence of nerve or brainstem ischaemia.

GCA is a heterogeneous disease and corticosteroids should be started immediately if there is a high index of clinical suspicion. Temporal artery biopsy should be performed as soon as possible, but should not delay treatment. HM

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Desmet GD, Knockaert DC, Bobbaers HJ (1990) Temporal arteritis: the silent presentation and delay in diagnosis. *J Intern Med* **227:** 237–40

Hayreh SS (1991) Ophthalmic features of giant cell arteritis. *Baillieres Clin Rheumatol* **5**(3): 431–59

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Hunder GG, Bloch DA, Michel BA et al (1990) The American College of Rheumatology 1990 criteria for the classification of giant cell arteritis. *Arthritis Rheum* **33:** 1122–8

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In the Public's View...

Green Wing

It's not 'Holby City'. Nor 'Casualty'. 'Green Wing' (Channel 4, E4, various times) isn't like anything. It's set in a hospital, but it's not really a hospital drama; patients and diseases are incidental. It's a comedy of manners. It's an exaggerated, surreal exploration of relationships. If there is an explanation of why it's called 'Green Wing' I missed it, but try this. At your next committee meeting, wait for a suitable quiet moment that demands a reflective comment and say, 'Well, it's not Green Wing.' You will be met by one of two reactions: either blank incomprehension, or a knowing broad grin.

There isn't really a plot, more a set of loosely interlinking threads. The central character, insofar as there is one, is junior surgeon Caroline Todd, played by Tamsin Greig. No one plays gawky awkward helplessness quite so well. Caroline has trouble finding digs, but having done so now has lodger Dr Angela Hunter as well. Dr Hunter is far from gawky, being slim, blond, incredibly talented and inappropriately modest. Caroline doesn't quite know whether or not she fancies her surgical registrar Mac McCartney, or anaesthetist Guy Secretan, but at the hideously realistic party she throws to celebrate finding a flat she manages a drunken snog with just about everybody. This includes Martin Dear, an inferiority-ridden junior physician who keeps failing his membership and who actually fancies her, and hospital liaison officer Sue White. White's responses to staff who approach her for advice are bizarre: she crawls under her desk while being asked a question she doesn't want to answer, stuffs paper into her bra while talking to Caroline, and fancies McCartney so much that she sniffs the chair after he leaves. What she does when Guy attempts to compromise her is not suitable for a family newspaper. She wears very high heels.

Radiologist Dr Alan Statham is Basil Fawlty on speed. His main talent is being caught in embarrassing situations which he makes worse by trying to explain. Junior radiologist Boyce exploits this to the full. Statham's fetishistic affair with Director of Human Resources Joanna Clore has ended, and he is now making a pathetic and doomed play for the hospital chaplain. Joanna's staff are inefficient, either pregnant, randy or hopelessly introverted, and plot against her. She dyes her hair and pretends nothing has changed, whereupon they stick Post-Its® on themselves in crude mimicry. Eventually we learn that Joanna is Martin's mother but is desperate that no one finds out.

'Green Wing' was spawned from 'Smack the Pony'. If you disliked that, you'll hate this. But it has the most realistic doctors' mess I've seen on TV, and the operating theatre banter between anaesthetist and surgeon could not be bettered. I found a web comment that 'The "humour" is predictable 3-year-old stuff, the cast have no chemistry and it is plain dull, dull, dull. The speeded up bits make it feel like you are watching a series of sketches. I didn't laugh once throughout the whole thing.' Ignoring the colloquial and incorrect use of like instead of 'as if' as a conjunction, I disagree. I find it funny enough that it's difficult to eat or drink and watch 'Green Wing' at the same time. HM

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