

## MATTERS ARISING

### Treatment of a case with pooled intravenous immunoglobulin as an alternative to immunosuppression

Enevoldson and Wiles<sup>1</sup> describe a patient with systemic lupus erythematosus (SLE) who developed a severe corticosteroid-resistant vasculitic neuropathy subsequently responsive to cyclophosphamide. They note the rarity of vasculitic neuropathy due to SLE, and the need to exhibit immunosuppressant therapy similar to that used in other systemic vasculitides, rather than steroids alone, in this context. We describe a further patient with an unusual pattern of central and peripheral neurological SLE, compatible with underlying vasculitis, who was successfully treated with pooled intravenous immunoglobulin (IVIg), having reacted adversely to cyclophosphamide.

The patient originally presented at the age of 20 years with generalised convulsions following her first pregnancy. Eight years later, she developed arthralgia, Raynaud's phenomenon, an urticarial rash and absence seizures. She presented again aged 40 years with a photosensitive rash and synovitis. Investigation then revealed positive ANA with a homogeneous pattern and elevated DNA binding at 942 units (normal <50). Skin vasculitis was subsequently controlled with prednisolone and azathioprine. Two years later she developed a severe and acute right ulnar neuropathy. Despite high dose oral prednisolone, a right median neuropathy supervened within two months. Treatment with pulsed intravenous cyclophosphamide (15 mg/kg) and methylprednisolone (10 mg/kg) was complicated by lymphopenia, alopecia, lingual ulceration, staphylococcal dactylitis and candidiasis. DNA binding remained high (242 units), anti-cardiolipin antibody was 42% (normal <25%), platelet count and coagulation screen were normal. She progressed over the next month to diffuse brain-stem/cerebellar involvement characterised by a one-and-a-half syndrome, consistent with a lesion of the right paramedian pontine reticular formation, ataxia and a left lower motor neuron facial palsy. MRI brain scan appearances were compatible with pontine micro-infarcts. She then received IVIg ("Sandoglobulin", Sandoz, Basle, Switzerland, infused at 400 mg/kg per day for five days), after which no new neurological deficit accrued over a follow up period exceeding nine months.

The evidence for vasculitis as the cause of the neurological deterioration in our patient was indirect. But this pathological basis seems likely in view of the stepwise presentation, particularly the multifocal peripheral nerve involvement, MRI appearances, associated serological abnormalities (including a marked and persistent elevation of the ESR), and previous demonstration of cutaneous vasculitis. Corticosteroids did not arrest the development of new neurological lesions when used alone and the addition of cyclophosphamide was associated with largely infective complications. The brainstem syndrome developed after her first pulse of

cyclophosphamide. Disease progression was apparently only halted when IVIg was exhibited, suggesting that this treatment may be added to existing therapeutic strategies for vasculitic neurological manifestations of SLE. Although IVIg has been used with benefit in other systemic vasculitides,<sup>2</sup> and for non-neurological complications of SLE,<sup>3</sup> we are not aware of previous reports of its efficacy in cases of SLE dominated by nervous system involvement.

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### Spontaneous intracerebral haemorrhage

The excellent review by David Mendelow omitted to mention one important cause of intracerebral haemorrhage (ICH).<sup>1</sup> Cerebral amyloid angiopathy (CAA) accounts for 5-10% of all cases of ICH<sup>2</sup> and its frequency increases with age.<sup>3</sup> The association with dementia in non familial cases is well recognised.<sup>4,5</sup>

The clinical and radiological diagnosis of CAA have important management implications.<sup>6</sup> Surgical evacuation is not only difficult but dangerous.<sup>7</sup> Recent reports on ICH in patients with CAA during tPA therapy for acute myocardial infarction<sup>8</sup> should lead to caution in its use in elderly or demented patients. Cerebral amyloid angiopathy has already been shown to be a cause of ICH during anticoagulant therapy.<sup>9</sup>

With the increasing availability of CT scanning in this country<sup>10</sup> and its possible use for elderly patients with stroke, one can expect increased recognition of CAA as a cause of ICH. Any lobar or multiple ICH at a site perhaps not typical of hypertensive bleeding in an elderly or a demented patient should alert the clinician to the possibility of CAA.

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### Internuclear ophthalmoplegia in giant cell arteritis

Recently, Trend and Graham reported two patients with unilateral internuclear ophthalmoplegia (INO) in association with giant cell arteritis (GCA).<sup>1</sup> These authors stated that the INO caused diplopia in their patients and resulted from embolism to brainstem perforators from thrombosed extradural segments of the vertebral arteries. They also claimed that these are the first such cases reported in the literature.

We would like to draw your attention to an article entitled "Internuclear ophthalmoplegia in giant cell arteritis" published in the *Journal of Rheumatology* in 1989.<sup>2</sup> In this article, we described two patients with INO and biopsy-proven giant cell arteritis. We proposed that the most likely cause of the INO in our patients was brainstem ischaemia from embolism to midline perforating vessels supplying the medial longitudinal fasciculus. However, direct arteritic involvement of these perforators could not be entirely excluded, as inflammation of the basilar artery has been shown in at least three cases.<sup>3,5</sup>

Contrary to what Trend and Graham<sup>1</sup> suggest, diplopia is not a common complaint of patients with INO<sup>6</sup> and may be explained by other ocular misalignments, such as a skew deviation.

We would agree with the authors' conclusions that giant cell arteritis should be considered as a cause of internuclear ophthalmoplegia and that corticosteroid therapy be instituted promptly to prevent further brainstem ischaemia.

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