**TABLE 11-6. TYPICAL AND ATYPICAL FEATURES OF DEMYELINATING OPTIC NEURITIS**

| | *Typical Optic Neuritis* | *Atypical Optic Neuritis* |
|---|---|---|
| Age | Young patient | Any age, but consider ischemic optic neuropathy in older patient and postviral optic neuritis in children |
| Gender | Often female | Either gender |
| Pain with eye movement | Usually present | Beware of severe pain out of proportion to optic neuritis or painless onset |
| Laterality | Typically unilateral | Consider systemic infectious, inflammatory, or infiltrative etiologies in bilateral and simultaneous cases |
| RAPD | Present ipsilaterally in unilateral (common) or bilateral but asymmetric cases (uncommon) | Consider alternative etiologies for the unilateral vision loss in the absence of a RAPD (eg, retinal disease, media or refractive, or nonorganic) |
| Slit-lamp biomicroscopy | Typically no anterior or posterior uveitis | Consider inflammatory etiologies (eg, sarcoid) in the setting of anterior or posterior uveitis |
| Optic disc appearance | Typically normal optic nerve appearance (retrobulbar) but mild hyperemia in some cases (papillitis) | Consider alternative etiologies in severe optic disc edema, significant hemorrhage, exudate (neuroretinitis), cotton wool patches, or neurosensory retinal detachment |
| Course | Usually recovers to normal or near normal vision | Lack of recovery suggests an alternative etiology (eg, ischemic, inflammatory) |
| Treatment response | Intravenous steroid therapy speeds rate of recovery but does not change final visual outcome | Steroid responsiveness or steroid dependency suggests inflammatory (eg, sarcoid, autoimmune optic neuropathy) or rarely infiltrative/neoplastic (eg, lymphoma) etiology |

  - Interestingly, oral steroids alone not only did not improve final visual outcome but increased the rate of new attacks. The ONTT concluded that oral steroids in conventional doses should not be prescribed for typical optic neuritis.
  - Additional studies since the ONTT have shown that patients with monophasic neurologic events and MRI studies consistent with demyelination might benefit from immunomodulatory therapy. In one of these studies, the Controlled High Risk Avonex Multiple Sclerosis Prevention Study (CHAMPS) treatment with interferon beta-1a (Avonex) reduced the rate of clinically definite MS after 3 years compared with placebo. Treatment also improved the demyelinating white matter lesions on MRI over time.
  - Other studies have confirmed the utility of other immunomodulatory therapies in monophasic neurologic events including optic neuritis.
- Prognosis
  - In the ONTT, the majority of patients recovered visual acuity better than 20/40.
  - The MRI is the most powerful predictor of MS and probably should be considered for prognostic purposes in every patient with optic neuritis.