Bilateral optic neuritis following *Mycoplasma pneumoniae* infection

Dear Editor,

We read with interest, the article on bilateral optic neuritis following *Mycoplasma pneumoniae* infection by Chiang and Huang.[1] Management of the case by authors was solely based on the hypothesis that optic neuritis developed secondary to an immune reaction. After going through the literature, we would like to highlight few important facts regarding the role of *M. pneumoniae* in cases with neurological damage. Extrapulmonary manifestations of *M. pneumoniae* infection especially nervous system involvement have been widely reported in the literature. Neurological injury falls into two patterns: Direct invasion by organism and secondary to an immune response. Cases when neurological involvement has been attributed to an immune complex mediated reaction, the duration of prodromal respiratory symptoms has usually been >7 days.[2] An auto-immune response causes neurological damage secondary to cytokine production, autoimmunity, and vascular occlusion. In a large case series published by Bitnun *et al*. the authors claim that in patients with neurological involvement they could detect *M. pneumoniae* antigen by polymerase chain reaction in cerebrospinal fluid/throat of patients who had at least 5–7 days of respiratory prodromal symptoms.[3] They proposed that respiratory infection can have a cytotoxic effect on respiratory epithelium, and this can facilitate blood stream invasion by *M. pneumoniae*. In the current case, coexistence of respiratory symptoms and visual symptoms along with raised *Mycoplasma* immunoglobulin (Ig) M titres (+, >75 BU/mL) raises the possibility of acute *M. pneumoniae* infection for the treatment of which intravenous Ig should be administered under a 2 week macrolide cover.[4] Although the response to Ig suggests an immune mechanism is involved along with acute infection, administration of high dose steroids can cause transient leucopenia which can suppress micro-organism. Holistic approach in such a case requires management of systemic status along with visual complaints. A chest X-ray at the time of presentation and a repeat serology to look for change in IgM and IgG levels would have supplemented the management. We agree with authors that in cases of optic neuritis in children with respiratory symptoms *M. pneumoniae* should not be overlooked as a probable cause and should be investigated for.

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