

Visual Function following Treatment of Optic Neuritis

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Abstract

Background: Optic neuritis is a common cause of visual loss in young adults and often the first manifestation of multiple sclerosis. Recent studies have shown that treatment with intravenous methylprednisolone results in more rapid recovery of vision, but without any long term difference in visual acuity. This study was carried out to evaluate clinical characteristics of patients with optic neuritis and visual outcome after intravenous methylprednisolone treatment.

Methods: In a case series study, 40 cases with optic neuritis were evaluated. Before and after treatment with methylprednisolone according to optic neuritis treatment trial, visual acuity, contrast sensitivity, color vision, streopsis and visual field were analyzed.

Results: 67.5% of the patients were females. The most common age group was between 20 and 40 (60%). Blind spot enlargement and other visual field defects were also returned to relatively normal value after the treatment. Central scotoma was the most common field defect (70%) and mild Dutan defect was the most common color vision (60%) defect in this study. Visual acuity, contrast sensitivity, color vision, streopsis and visual field were significantly reduced in optic neuritis, relatively returning to the normal level after treatment.

Conclusion: It seems that the assessment of other visual functions, besides visual acuity, is important in a patient with optic neuritis, because patients usually remain aware of visual deficits other than decreased visual acuity.

Keywords: Optic neuritis; Visual function; Treatment

Introduction

Optic neuritis (ON) is a common cause of visual loss in young adults and is often the first manifestation of multiple sclerosis.¹ Most of the patients are women (77%), between 15 to 45 years old.¹ Recent studies, particularly from the Optic Neuritis Study Group, have helped to clarify the natural history and treatment of optic neuritis.² These studies have shown that, as compared with oral prednisolone or placebo, treatment with intravenous methylprednisolone (IVMP) results in a more rapid recovery of vision, but without any long term difference in visual acuity. Moreover, there was a higher rate of recurrence of optic neuritis in the oral prednisolone treated group.³ The subsequent develop-

ment of clinically definite multiple sclerosis was delayed for up to 2 years in patients treated with IVMP.¹ Although the most common visual presenting symptom is deterioration of visual acuity, contrast sensitivity, color vision, streopsis (especially in moving targets), and visual field will also be involved in this process. Patients usually remain aware of visual deficits in the affected eye after recovery.^{1,4}

Despite widespread publication of the ONTT results, few publications exist in this field in our country. We aimed to clarify whether optic neuritis treatment according to ONTT will change contrast sensitivity, visual field, color vision and streopsis, besides the visual acuity.

Materials and Methods

In a non-comparative interventional case series study, 40 patients with optic neuritis were investigated in

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