

OPTIC NEURITIS IN MEASLES*

BY

S. P. SRIVASTAVA AND H. V. NEMA

Department of Ophthalmology, G. R. Medical College, Gwalior, India

OPTIC neuritis is one of the rare complications of measles. It has been reported as a bilateral involvement by a number of workers (Muerer, 1947; Ford, 1952; Ström, 1953; Tyler, 1957; Kennedy and Carroll, 1960). Walsh (1957a) stated that he had never observed unilateral loss of vision in measles encephalomyelitis. In all the cases reported optic neuritis occurred during or after the attack of measles. The present case is of particular interest because loss of vision in one eye only was the first symptom which the patient reported, and was followed a day later by the actual attack of measles.

Case Report

A female Hindu child aged 8 years was brought to the Ophthalmic Department, J. A. Hospital, Gwalior, on April 29, 1961, complaining of pain and loss of vision in the left eye for one day.

Examination.—The left eyeball appeared to be slightly proptosed and there was slight drooping of the upper lid. The movements of the globe were normal, but a little painful. The palpebral conjunctiva and the fornices were congested. The cornea, anterior chamber, and iris were normal. The pupil was dilated and reacted very sluggishly to light, and there was marked tenderness on digital pressure, especially near the insertion of the superior rectus. The visual acuity was reduced to hand movements. Fundus examination showed that the media were clear, and the disc hyperaemic, swollen, and with blurred margins. The retinal veins were congested.

The right eye showed only slight conjunctival congestion, with visual acuity 6/6, and normal fundus.

Investigations.—The total white blood cell count was 6,158/c. mm. (neutrophils 61 per cent., lymphocytes 30 per cent., eosinophils 6 per cent., mononuclears 3 per cent.). A skiagram of the skull and orbit showed no abnormality. The E.N.T. surgeon and the neurologist reported nothing abnormal.

Diagnosis.—Optic neuritis.

Treatment.—Daily injections of strepto-penicillin intramuscularly. Daily injection of Berin 100 mg. and Macrabin 100 µg. intra-muscularly. Prednisolone 2.5 mg. four times daily.

Progress.—The child developed fever in the evening of the same day, which continued for 3 days ranging from 100.2° to 103.4°F. On the fourth day a typical measles rash appeared.

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The case was referred to the physician who substituted one Mysteclin capsule three times a day and continued the prednisolone.

On May 14, 1961, when the patient was completely recovered the vision in the left eye was 6/36, and the disc was still hyperaemic with blurring of the margin. A weekly examination showed gradual improvement and when last seen on February 3, 1962, the visual acuity in the left eye was 6/9, and the fundus showed only slight pallor of the disc.

Discussion

Walsh (1957b) stated that in all probability optic neuritis as a complication of measles was an expression of measles encephalomyelitis. Ström (1953) also suggested that optic neuritis in measles might be considered a localized encephalitis inasmuch as the neural part of the optic system was phylogenetically an extension of the brain. The unilateral involvement of the optic nerve occurring as the first symptom and the patient's uneventful recovery suggest that the optic nerve was primarily involved and that the inflammation was localized within the orbit with no encephalitis. That the optic neuritis could be associated with slight retrobulbar cellulitis is evidenced by the presence of slight proptosis of the left eye with drooping of the upper lid. The unilateral optic neuritis and slight retrobulbar cellulitis in this case may be regarded as the prodromal ocular catarrh which is a constant finding in measles.

Summary

A case of unilateral optic neuritis occurring as the presenting symptom in a case of measles is described. The inflammation of the optic nerve in this case appears to be due to prodromal ocular catarrh associated with mild retrobulbar cellulitis.

REFERENCES

- FORD, F. R. (1952). "Diseases of the Nervous System in Infancy, Childhood, and Adolescence", 3rd ed., p. 625. Thomas, Springfield, Ill.
- KENNEDY, C., and CARROLL, F. D. (1960). *A.M.A. Arch. Ophthalm.*, **63**, 747.
- MUERER (1947). Cited by Thygeson (1958) in "Systemic Ophthalmology", ed. A. Sorsby, 2nd ed., p. 200. Butterworth, London.
- STRÖM, T. (1953). *Acta paediat. (Uppsala)*, **42**, 60.
- TYLER, H. R. (1957a). *Medicine (Baltimore)*, **36**, 147.
- WALSH, F. B. (1957a). "Clinical Neuro-ophthalmology", 2nd ed., p. 471. Baillière, Tindall, and Cox, London.
- (1957b). *Ibid.*, p. 307.