An isolated right hypoglossal nerve palsy in association with infectious mononucleosis

G. D. S. WRIGHT*
B.Sc., M.B., M.R.C.P.

K. D. LEE
M.A., D.Phil., M.D., M.R.C.P.

Warneford Hospital, Radford Road, Leamington Spa, Warwickshire, CV31 1LU

Summary

Following an upper respiratory tract infection, a teenage girl developed an isolated right XII nerve palsy; subsequently she was shown to have infectious mononucleosis. After 24 weeks her tongue had virtually recovered.

Case report

The patient, a 16-year-old girl, was admitted to hospital in March 1978. Five weeks previously she had developed a sore throat with tonsillar enlargement and cervical lymphadenopathy. She had been treated with Magnapen and ethoheptazine citrate, following which a red maculo-papular rash lasting 3 days developed on her arms and abdomen.

Two weeks after the onset of her illness she felt well enough to go on a Mediterranean cruise with her school. Whilst away, the girls in her dormitory commented on a change in her voice.

She noticed that her tongue moved involuntarily and was difficult to control. A few days after her return home her mother observed that the right side of her tongue was wasted.

On admission to hospital the patient had an enlarged left tonsil with associated cervical lymphadenopathy and an isolated right XII nerve palsy (Fig. 1). There was no other abnormality on physical examination or on full ENT examination under anaesthesia.

Investigations showed Hb 11.3 g/dl; ESR 25 mm in the first hour (Westergren); WBC count $5.9 \times 10^9/l$ (42% lymphocytes) with occasional atypical mononuclear cells; IM screening test positive; Epstein-Barr (EB) virus fluorescent antibody titre 1/256 (1/128 after 6 weeks and again after 5 months). Routine viral studies showed insignificant titres apart from influenza A positive at 1/128. Biochemical profile was normal apart from a raised aspartate

FIG. 1. 24 March 1978: right XII nerve palsy.

* Correspondence: Dr G. D. S. Wright, Wessex Neurological Centre, Southampton General Hospital, Shirley, Southampton, SO9 4XY.

FIG. 2. 5 September 1978: almost complete recovery.

aminotransferase of 42 i.u./l, and a high total protein of 83 g/l (albumin 42 g/l) with γ -globulins slightly increased on protein electrophoresis. X-ray examinations of her skull and mastoids were normal.

No treatment was given but 24 weeks after admission the tongue had almost fully recovered (Fig. 2).

Discussion

Various neurological disorders have been described in association with infectious mononucleosis (Bernstein and Wolff, 1950; Schnell *et al.*, 1966). The classical clinical features of the disease need not even be present (Silverstein, Steinberg and Nathanson, 1972; Grose *et al.*, 1975). Involvement of the XII cranial nerve has been described previously (Zohman and Silverman, 1942; Garvin, 1953; Chatterjee, 1961) in association with more generalized involvement of the nervous system. The patient described here had mild infectious mononucleosis, complicated by an isolated XII nerve palsy; Sibert (1972) described a similar case. It is therefore a further example of an acute neurological illness shown to be associated with the EB virus. In the case described by Sibert there was little, if any, recovery at 6 months; in the case described here recovery was virtually complete.

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