A CASE OF NERVE DEAFNESS IN EARLY SYPHILIS

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Introduction

IDSOE AND GUTHE (1967) have pointed out that the incidence of venereal syphilis has receded in the past hundred years. One can only surmise at the multitude of factors contributing to this fact, but can be in no doubt about the part played by both the discovery of Penicillin and advances in Public Health machinery. One suspects that because of this, a relatively intangible complacency exists about Syphilis and its danger to health. Certainly general awareness of the disease and its complications seems to be reduced. Signs and symptoms of late Treponemal disease seen in early acquired lues are apparently frequently missed because of this. Felton in 1973 in a study of acquired syphilis described a 'late discovery' factor of 0.7 in males and 1.0 in females over a 30 year period. Parker (1972) described uncommon complications of hepatitis, periostitis, iritis with papillitis and meningitis in four patients with early syphilis. Pandhi, Bedi and Bhutani (1975) found Leucomelanoderma of the palms of the hands and soles of the feet in a case of early leucic infection. In 1971 Willcox and Goodwin described nerve deafness in three patients with early acquired syphilis with a common factor of music appreciation and remarked on the absence of any such report since one case recorded by Alergant (1965). They quote the reports of Stokes, Bereman and Ingraham (1944) on the finding of abnormalities in 40-50 per cent cerebro-spinal fluids of early infectious syphilis patients, although Bauer, Price and Cutler (1952) quote a much lower figure of 5 per cent.

A case of nerve deafness in a young soldier is reported to illustrate some of the difficulties of recognizing early acquired syphilis:

Case report

An 18 year old unmarried soldier was referred to the E.N.T. Department, The Queen Alexandra Military Hospital, Millbank (Q.A.M.H.) on 26th March 1975 complaining of severe hearing loss. He had experienced a total left sided deafness four weeks earlier followed by a severe but incomplete loss three days later on the right side. Each loss had occurred over the space of a few hours. Vertigo, tinnitus or pain had not accompanied either episode. The hearing loss was sensori neural in type. At the time of the onset he had been employed on a 'Silver Polisher's course' and in the absence of any preceding history of head injury, respiratory infection or exposure to known ototoxic agents it was considered possible that his symptoms were a toxic effect of chemicals used on the course. However, serum thiocyanate was zero. Blood film was normal and no evidence of reticulocytosis was seen. Treat-

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ment with Dexamethasone 1.5 mg t.d.s. and Nicotinic acid 50 mg t.d.s. was commenced on 26th March 1975.

Audiological investigations at Q.A.M.H. Millbank and the Institute of Audiology confirmed that the hearing loss was organic. Venereal Disease Reference Laboratory slide on 3 April 1975 was positive. He was referred to the Department of Genito-Urinary Medicine, Royal Herbert Hospital, Woolwich on 6th May 1975 and admitted for further investigations.

Sexual history

Sexual intercourse was first experienced at 15 years of age with a married but divorced woman. Two other younger females became sexual partners irregularly over the next two years in addition to the divorcee. All these contacts were from his home town. A posting to Cyprus during the recent emergency produced a fourth sexual partner from May-August 1974. Until that time the patient had not complained of any signs or symptoms of sexually acquired disease.

Examination

He was a healthy looking stockily built overweight young man with a somewhat anxious looking facies who concentrated his eyes on one's face more persistently than does the average person at normal examination. Apart from chronically enlarged pitted tonsils, a tendency to Rombergism and already described 8th Nerve deafness, there were no abnormal signs in any system. Blood pressure was 145/80 mm/Hg.

Laboratory investigations

Blood serology—R.P.R. strongly positive: V.D.L.R. slide reactive 1 in 8: T.P.H.A. positive not less than 1 in 5120: F.T.A.-A.B.S. IgG positive: F.T.A.-A.B.S. IgM positive.

Cerebrospinal fluid—Protein 0.22 g/l: Cells Nil: Globulin negative: Culture sterile: Lange O - - - O: T.P.H.A. positive 1 in 320: F.T.A.-A.B.S. IgG positive: F.T.A.-A.B.S. IgM negative.

Blood count—Hb 14.8 g/per cent: WBC 10.8000 per cu.mm with normal differential.

X-ray—Chest, skull and long bones normal, except for suggestion by Radiologist that cardiac shadow appeared large for general build.

Treatment

The patient was treated with 21 days $\times$ 600,000 Unit Procaine Penicillin daily under a Prednisolone umbrella of 15 mg for two days before therapy and then tailing off steroid cover over the next seven days. No Jarisch-Herxheimer reaction was noted objectively but the patient complained of feeling hot for some hours the day after his first intramuscular Penicillin injection.

Full Ophthalmological and Psychological examinations produced no evidence of deterioration on 29th May and 24th June respectively.

Further investigations

Careful research into the patient's history revealed that exposure with a local contact in Cyprus took place in May, July and August 1974. Vaguely noted vascular lesions of the penis in September 1974 promoted a local V.D.R.L. with negative results and treatment with Septrin. A further visit for medical treatment in one week's time elicited a maculo-papular rash then ascribed to Septrin sensitivity and treated with antihistaminics. Further episodes of sore throat and Eustachian Catarrh in December 1974 and February 1975 were treated with Ampicillin and Penicillin tablets respectively following the patient's return to the United Kingdom (U.K.).

Immediate relatives and all sexual contacts in 1973 and 1974 in the U.K. were notified and duly examined. None were found to have had a treponemal disease. It was assumed that the Cyprus contact was infected, but unfortunately proved untraceable.

Progress

Audiometry on 26th March, 3rd April and 18th July 1975 indicated that the modest, but critical recuperation of hearing (R) which did take place occurred during the period of Dexamethasone and Nicotinic acid administration and prior to the initiation of Chemotherapy. No deterioration, transient or otherwise occurred during the latter regime (Figs. 1 to 3).

Summary and conclusions

- Syphilis continues to produce problem cases. Red herrings complicate these problems.
- A case of syphilitic nerve deafness is described associated with early disease when it is considered more commonly associated with congenital disease.
- Subjective deafness markedly improved within a week of commencement of therapy and prior to chemotherapy. Audiometric improvement occurred within the

Fig. 1.

Fig. 2.

Fig. 1. Audiogram taken on 26 March 1975.

Fig. 2. Audiogram taken on 3 April 1975.

Fig. 3. Audiogram taken on 18 July 1975.

Fig. 3.

first three weeks of Dexamethasone treatment and no further improvement was noted over the next four months on regular audiometric examinations.

d. The danger of the use of one reagent test in outruling lues is graphically and tragically portrayed in this instance. This case emphasizes the argument that a reagent test (R.P.R. and/or V.D.R.L.) and the T.P.H.A. test are a required local laboratory investigation.

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