Recurrent Bell's palsy

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Introduction

Bell's palsy is defined as a peripheral facial palsy of sudden onset and unknown aetiology. It is the commonest cause of a peripheral facial palsy, and is a benign condition, it being generally accepted that 65–70 per cent of patients make a complete recovery. Factors known to influence prognosis for recovery adversely are advancing years and a complete palsy. Matthews (1961) also suggested that recurrent attacks might be an unfavourable prognostic factor. More than one attack of Bell's palsy occurring in the same individual—recurrent Bell's palsy—is well known. Devriese and Pelz (1969) reviewed the early literature and suggested the use of the terms 'Recurrent' Bell's palsy and 'Alternating' Bell's palsy to describe second attacks of Bell's palsy affecting the same (ipsilateral) or the opposite (contralateral) side respectively. For purposes of discussion, this terminology is used in this paper. Of 165 cases of Bell's palsy seen in the neurology department of a large district general hospital over a 13-year period, twenty-five were patients with recurrent Bell's palsy and form the subject of this paper.

Patients and methods

The criteria for the diagnosis of Bell's palsy were those used by Taverner (1955): complete or partial paralysis of the muscles of expression of the whole of one side of the face of sudden onset; absence of any symptom or sign of any other disease of the central nervous system; and absence of any sympton or sign of any disease of the ear or posterior fossa. Some 165 patients satisfied these criteria, of whom twenty-five had experienced more than one attack of Bell's palsy. Of these twenty-five patients, eighteen were personally interviewed, examined and investigated, two had died from cerebrovascular accidents, and five could not be traced. The history was typical of a Bell's palsy, examination of the central nervous system showed no abnormalities apart from the VIIth cranial nerve, and general examination was essentially normal. Routine haematology, biochemistry, blood, W.R., and Kahn, and radiology, including appropriate skull views, were normal. Examination of the cerebrospinal fluid was performed in five patients, and a glucose tolerance test in eight, all results of which were normal.

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Results

Twenty-five cases of recurrent Bell's palsy were studied, of whom fourteen were male and eleven female. The incidence of recurrent Bell's palsy in several large series is shown in Table I. It ranged from 7 per cent to 15 per cent, but it must be remembered that in all the series, the patients constituted highly selected groups of patients, in that not only were they referred to hospital but also to a speciality department (Neurology, Otorhinolaryngology or Physical Medicine). In the present series the reason for referral was either failure of the facial paralysis to recover after several weeks, or the event of a recurrence.

TABLE I.
INCIDENCE OF RECURRENT BELL'S PALSY

Authors	No. of cases	Total	%Incidence
Park and Watkins (1949) ..	31	440	7·0
Cawthorne and Hayes (1956) ..	33	347	9·5
Devriese and Pelz (1969) ..	46	440	10·4
El-Ebiary (1971)	49	528	9·0
Present series	25	165	15·2

The age of the patient at the time of the first attack ranged from 7 to 80 years, the average being 28·4 years. Seventeen of the twenty-five patients were aged 30 years or less at the time of their first attack.

The number of patients in the two groups—recurrent and alternating—was thirteen and twelve respectively. In the recurrent group there were seven males and six females; in the alternating group, seven males and five females. Ten out of thirteen patients in the recurrent group were 30 years of age or less as opposed to only seven out of the twelve patients in the alternating group. Five patients experienced more than two attacks, and all were under 20 years of age at the time of their first attack. The interval between the first and second attack ranged from five weeks to thirty years, being less than five years in fifteen of the twenty-five patients (60 per cent). The average interval in the recurrent group was 8·6 as opposed to 7·1 years in the alternating group. Although only five patients suffered more than two attacks, the interval between successive attacks did not necessarily shorten as the number of attacks increased.

The degree of recovery is shown in Table II. By recovery is meant the return to full voluntary movements not associated with any degree of associated or spontaneous movements, or contracture formation. If these criteria were not met, the recovery was incomplete. Electromyographic studies were not carried out on sufficient patients for a conclusion to be drawn with regard to recovery. Thus, the criteria for complete recovery were based on clinical assessment. Sixteen out of twenty-five (64 per cent) made a complete recovery from their first attack. This figure of 64 per cent

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is only approximate as the completeness of recovery had, in most cases, to be made from an assessment of the notes compiled at the time of the first attack or from as detailed an account as was possible to obtain from the patients themselves. However, of the sixteen patients who were considered to have made a complete recovery from their first attack, only six did so after their second attack (24 per cent). Of these six patients, three went on to sustain a third attack, none of whom made a complete recovery.

TABLE II.
RECOVERY IN RECURRENT BELL'S PALSY

(a) *First attack:* Recovery	No.	Recurrent	Alternating
Complete	16	8	8
Incomplete	9	5	4
(b) *Second attack* (16 patients with complete recovery):			
Complete	6	4	2
Incomplete	10	4	6

Discussion

The incidence of Bell's palsy in the two sexes is equal. In the series of Devriese and Pelz there were forty-six cases of recurrent Bell's palsy, of which twenty-nine were males and seventeen females, and it was tentatively concluded that men were more prone to a recurrence than women. However, El-Ebiary (1971) found the recurrence rate was twice as common in females as in males. In the present series there were fourteen males and eleven females, the difference not being of significance. The true incidence of recurrent Bell's palsy is difficult to assess, since large series of Bell's palsies constitute selected groups of patients, but it is probably less than 5 per cent.

The twenty-five patients were divided into two groups—recurrent and alternating—and these were examined to detect any difference with regard to the numbers and sex affected, the side involved, the age of the patient at the time of the first attack, the interval between attacks, and the prognosis for complete recovery. There were no differences between the two groups with regard to these factors, and it is suggested that the term 'Alternating' having no significant clinical or prognostic implication be discarded. The only difference between the two groups was that those with recurrent attacks experienced their first attack at an earlier age, ten out of the thirteen being 30 years or less, as opposed to seven out of twelve in the alternating group. The reason for this is obscure. With regard to completeness of recovery, while the figures are somewhat limited for reasons already stated, a recurrent attack of Bell's palsy is an adverse prognostic factor for complete recovery, only 24 per cent making a complete recovery after a second attack as opposed to 64 per cent after a single attack.

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Summary

Of 165 patients with Bell's palsy, twenty-five (15·2 per cent) had experienced a recurrence of the Bell's palsy. From a study of these patients, it is suggested that the term, recurrent Bell's palsy, be applied to all cases irrespective of the side involved in the second or subsequent attacks; that a recurrent attack of Bell's palsy is an unfavourable prognostic factor for complete recovery; and that the true incidence of recurrent Bell's palsy is less than 5 per cent.

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