months, when aged ten months, he weighed 24 lbs and was well. Apart from a slight droop to the corner of the right eye, no evidence of the facial paralysis remained and his smile was noted to be equal on both sides.

Discussion

Bell's palsy is defined by Kettel as a collective diagnosis for all cases of peripheral facial paralysis in which it is impossible to demonstrate a local lesion. At present it is considered to be caused by arteriolar spasm in the vasae vaso r um supplying the nerve which becomes oedematous and is compressed within the facial canal (Hilgar). Miehlke describes this to be the site when there is no eye movement disability, no apparent vestibular disturbance, and no extra temporal lesion evident. Previously, all cases were considered to be caused by a non-suppurative otitis media, whether the drum head was seen to be involved or not and at one time a tuberculous infection of the middle ear had always to be kept in mind. Kettel noted necrosis in the mastoid process cells in 11 out of 50 cases in which he exposed the nerve but found no round-cell infiltration. He concluded that if the ear drum was injected in a case of Bell's palsy this must be part of the general vascular change and not necessarily of infective origin. It is probable in this case that the antibiotics used were unnecessary, especially considering the absence of other manifestations of infection.

Many different forms of therapy have been described. Early use of corticosteroids to relieve the vascular spasm and surgical intervention to relieve the compressed nerve have been advocated. 75–85 per cent of cases, however, make a good recovery with no treatment. Apart from the antibiotic therapy, conservative methods were used in the treatment of this child.

The underlying aetiology in Bell's palsy is still obscure but exposure to a local or general cooling influence is thought to be connected. No unusual cooling, however, was noted in this case.

In a review of the literature on Bell's palsy and facial paralysis, the youngest child reported was two years old, although this does not include the facial paralysis at birth from obstetric manipulation and trauma.

Summary

A report is given of what appeared to be a typical Bell's palsy in a male child four months old. No instance of this condition in so young a child has been reported in the journals. The causation and treatment of Bell's palsy is reviewed.

REFERENCES


A note on primary adult hypothyroidism in a Scottish rural practice

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TWO CIRCUMSTANCES HAVE AROUSED THE writer's interest in this problem. (1) an apparent absence of accurate information about the extent of the disease in Scotland; (2) the discovery of ten examples of primary adult hypothyroidism in a relatively small rural practice in central Scotland over the period December 1961 to March 1968. The term primary adult hypothyroidism is preferred to myxoedema, which is in fact the final phase of hypothyroidism: it may be that the picture of gross myxoedema imprinted on our minds from student days has retarded our

appreciation of lesser degrees of hypothyroidism.

*Practice location and composition.* The practice is a two-man partnership in Perthshire and the number of resident patients in the writer’s section of the practice has varied between 1,300 and 1,700 with a male–female distribution of approximately 1–1.3.

*Sex and age distribution of the cases.* All ten patients were women. Their ages at date of diagnosis were; under 40, one, 60–69, four, 70–79, five. Eight of the ten patients had lived in central Perthshire for periods ranging from 16 to 75 years.

*Diagnostic criteria.* In two cases diagnosis was made in hospital, to which the patients had been admitted for the investigation of other conditions. Of the remaining eight, diagnosis was clinical and therapeutic in four instances: In the last four patients in the series clinical suspicion was confirmed by laboratory estimations of serum P.B.I. The findings (μG per cent) were: 1.4, 1.1, 1.6 and 1.0. The normal range of serum P.B.I. is 3.1–7.1 μG per cent and in the diagnosis of hypothyroidism this test is about 90 per cent accurate—low values occur in the nephrotic syndrome and in some cases of hepatic cirrhosis but confusion with hypothyroidism should seldom arise. In the writer’s experience the curious cracked timbre of the patient’s voice first suggested the possibility of hypothyroidism.

**Discussion**

*Etiology.* The etiology of primary adult hypothyroidism is unknown. Doniach and Roitt (1957) suggest that “spontaneous myxoedema without goitre” may be the end result of thyroid auto-immunization: This correlates well with earlier observations by Means (1937) that six of nine autopsied cases of myxoedema revealed heavy infiltration with lymphocytes on microscopic examination of the thyroid gland. Irvine (1967) has recently shewn that antibodies to thyroglobulin were present in the sera in 70 per cent of his cases of “primary atrophic hypothyroidism”—cytoplasmic antibodies were present in 63 per cent in the same series.

*Sex distribution.* The fact that all the patients in this series were female is in keeping with many similar observations of this disease: The reason for female preponderance is unknown.

*Association with other diseases.* Doniach et al. (1963) and Irvine et al. (1965) found that antibody to gastric parietal cell antigen is found more frequently in the sera of patients with thyrotoxicosis and primary hypothyroidism. McNicol (1961) and Tudhope and Wilson (1962) reported a significant association between thyrotoxicosis and hypothyroidism and pernicious anaemia respectively. Facilities were not available locally for the estimation of gastric parietal cell antibodies in the sera of the writer’s hypothyroid patients—but none of them had overt Addisonian pernicious anaemia nor were any examples of this disease found in the siblings of hypothyroid patients. Addisonian pernicious anaemia is, almost certainly, another example of an auto-immune disease and it occurs in approximately the same age span as does primary adult hypothyroidism. However, the writer has discovered only four new cases of Addisonian pernicious anaemia in his practice in the last 20 years.

Possible reasons for the apparently high incidence of primary adult hypothyroidism in the area are: (1) The age distribution of the patients. It will be noted that nine of the ten patients were in the age groups 60–69 or 70–79 at the date of diagnosis. An analysis made in October 1964 showed that women in the age group 60–69 made up 16.3 per cent of the female population of the writer’s practice; in the age group 70–79 the figure was 10.96 per cent. In the 1961 census females aged 60–69 accounted for 9.91 per cent of the female population of Scotland and those aged 70–79 for 5.85 per cent. In the 1966 census the corresponding figures were 10.6 per cent and 6.27 per cent. The apparently high incidence of primary adult hypothyroidism in the practice area is almost certainly age-dependent. (2) In a search for other possible factors attention was directed to the iodine content of the local water supply—not with any conviction that this might play a significant rôle. Goitre is seldom seen in this area except occasionally in adolescent girls and only one cretin—an imported case—has been seen by the writer in 20 years. However, through the courtesy of the medical officer of health for the county, three samples of water (two from public supplies and one from a private supply) from widely scattered points in the practice area were submitted to the public analyst. The iodine content of the samples (in parts per million) were 0.001, 0.007 and 0.001. Such minute traces are to be expected in the water supply of an area so far from the sea.

**Conclusion.** Primary adult hypothyroidism is not a difficult disease to detect when one has
developed a reasonably high index of suspicion. It may well be more prevalent than we think. It is one of the few diseases of middle and later life the treatment of which is eminently satisfying to patient and doctor alike. It would be of interest to have observations on similar age groups in different parts of the country. It is suggested that this could be a useful exercise for the Royal College of General Practitioners.

REFERENCES

CLINICAL TRIAL

One tablet dyspepsia study—Pro-banthine

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THIS IS A REPORT OF A pilot study into the value of various medications in the treatment of indigestion. A drug known to be active in this respect (15 mg tablets of 'pro-banthine') was chosen in order to validate the technique and estimate the variability.

Method

Five general practitioners contributed to this study.

Patients were only admitted to the trial if they were male, over 16 years of age and were suffering from indigestion at the time they were seen by the doctor. If the patients were agreeable they were randomly given, according to a prepared list, either one 15 mg tablet of 'pro-banthine' or an identical placebo tablet. The tablets were taken with a small drink of water.

Patients were excluded from the trial if they had taken food or medicine within two hours of the test.

Indigestion for the purpose of this study was defined as pain or discomfort occurring in the upper abdomen or lower thorax, which was centrally sited and had occurred in the previous six months. The character of the pain was judged to be immaterial so long as it did not clearly arise from organs other than the upper gastro-intestinal tract.

Five minutes, 10 minutes, 15, 20, 30, 40, 50, and 60 minutes after the tablets had been given to the patients they were asked whether they still had the pain, and they were asked to reply yes or no. To help accurate timing a ringing alarm clock, such as is used in cooking, was provided. During the period of the test patients were left alone in a room to their own devices.

Results

Data on 27 patients were received and all of them have been used in this analysis.

Comparability of the two groups. The comparability of the two groups was measured with respect to age range, mean age and standard deviation of the age. Inspection of the data presented in table I reveals that they are comparable. A larger number of patients in the actively