

of the so-called trivial is really the untapped evidence of functional ill-health?

It is suggested that these questions involve a good deal of subjective thought. A survey of this type would require an experienced outside observer to spend at least one week with the doctor concerned. For the results to have meaning an adequate number of appropriately selected practices would have to be surveyed. In view of the importance of this subject, is it too much to ask that it should be properly undertaken and financed?

Summary

A quantitative survey by two different methods over two years of the work load in an outer suburban general practice, is described. A plea is made for the undertaking of a qualitative survey, and alterations in the organization of the practice resulting from the author's impressions during the survey, are described.

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CLINICAL NOTE

AN UNUSUAL CASE OF ANAEMIA WITH NEUROLOGICAL AND PSYCHIATRIC FEATURES

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A WOMAN OF 24 YEARS was admitted to British Military Hospital, Dhekelia on 15 October, 1963 with a history of lassitude and amenorrhoea for two months. No other symptoms were admitted even on direct questioning of the patient and her husband. Her mother died at the age of 52 years in 1959 of pernicious anaemia which apparently had been treated for four years. On examination her colour was pale but without any yellowish tinge. Her tongue was not painful or atrophic. The spleen was palpable. There was no enlargement of lymph glands. There was weakness of both legs, the right knee jerk was diminished, the left knee jerk and the ankle

jerks were absent, plantar responses were extensor. Abdominal reflexes were difficult to elicit. She had bilateral foot drop. Sensation showed impairment of all modalities in both lower limbs, more marked on the left than on the right.

On admission her Hb was 20 per cent and the r.b.c. 840,000 per cu.mm. The blood film was unsatisfactory due to the difficulty in obtaining blood but showed anisocytosis with some macrocytes, late and intermediate normoblasts, and Howell-Jolly bodies. The white cell count was 4,800 per cu.mm and no abnormal leucocytes were seen. The sternal marrow showed a megaloblastic reaction. Other positive findings were:

Maximum stimulation test meal: Total acidity for first hour 1.1 mEq/l
Total acidity for second hour 1.9 mEq/l

Serum iron on 24 October 1963: 209 $\mu\text{g}/100\text{ ml}$ (normal 60–140 $\mu\text{g}/100\text{ ml}$)

Serum B₁₂ on 24 October 1963: 122 $\mu\text{g}/1\text{ ml}$ (normal 140–500 $\mu\text{g}/1\text{ ml}$)

Serum folic acid on 24 October 1963: 1.1 $\mu\text{g}/1\text{ ml}$ (normal 3.2 $\mu\text{g}/1\text{ ml}$)

Plasma protein on 11 November 1963: Total protein 6.3 g/100 ml

Albumin 2.8 g/100 ml

Globulin 3.5 g/100 ml

A.G. ratio 0.8:1

16 December 1965. Parietal cell antibody test (immuno-fluorescence). Positive. 20 January 1966. The percentage of an oral dose of cobalt 57-labelled vitamin B₁₂ recovered in the urine was only 0.4 per cent in the first 24 hours and 0.2 per cent in the second 24 hours.

In view of her low haemoglobin the patient was transfused with packed cells from two pints of blood immediately on admission on 15 October 1963. She was again transfused with the same quantity of packed cells on 29 October. She was given ferrous gluconate 15 mg three times daily from 16 October and injections of 1,000 μg of vitamin B₁₂ daily were begun on 24 October. She was given 5 mg folic acid twice daily from 26 to 31 October. The reticulocyte response rose from below two per cent on 24 October to six per cent on 28 October and nine per cent on 1 November. Her haemoglobin increased to 65 per cent on 11 November but did not respond further until she was again given folic acid 5 mg twice daily from 20 November. Subsequently it rose to 77 per cent on 10 December, to 90 per cent on 14 January, and to 100 per cent on 24 February. It has subsequently remained at 100 per cent, except for a short period after delivery of her child late in the following year.

On 28 October she developed retention of urine with overflow. This required treatment with an indwelling catheter and full recovery of bladder function occurred after three weeks. Marked dependent oedema developed; this increased in the week following admission but improved subsequently and later disappeared completely.

Towards the end of October a paranoid reaction was noted. This was at first mild and considered to be related to cerebral anoxia. It, however, became more marked as her haemoglobin rose and her general condition improved. By the middle of November it was indistinguishable from a paranoid psychosis. She believed that the patients were talking and

laughing at her behind her back and addressing insulting remarks to her. She thought that the nursing staff were trying to kill her by poisoning her food and her treatment was intended to harm her. She ascribed this to a communist plot. Her psychiatric symptoms were controlled with 5 mg of stelazine each morning. In December her mental state gradually improved and was normal in early January when stelazine was discontinued without any recurrence of paranoid symptoms.

By 3 January 1964 there was marked neurological improvement. There was some motor weakness but power was much improved, the weakness was most severe in the quadriceps muscles and was more marked on the right than on the left. Plantar responses were flexor and all reflexes were present and equal. Bilateral foot drop was still present. The sensory system showed no impairment to light touch, pinprick, hot and cold, position sense or vibration sense. Co-ordination was satisfactory except for some impairment due to her residual motor weakness.

The patient was walking well for two weeks before discharge on 14 January. By 16 March there was complete resolution of all neurological symptoms. She became pregnant and was delivered of a normal male baby weighing 8 lb. 2 oz. on 11 November 1964. During pregnancy she had 5 mg of folic acid daily and 1,000 g of vitamin B₁₂ injections weekly. Her haemoglobin remained in the region of 100 per cent falling to 70 per cent following delivery. It has now returned to 100 per cent. Folic acid has been omitted and she is having 200 g of vitamin B₁₂ injections every two weeks. Her son is progressing normally.

Discussion

The patient had a low B₁₂ and low folic acid blood levels. Marked neurological lesions in folic acid deficiency megaloblastic anaemia are rare. This patient also showed severe psychiatric symptoms. In spite of her age and absence of complete achlorhydria she was thought to have pernicious anaemia with subacute combined degeneration of the cord. Subsequent tests are in accordance with this diagnosis. It may be interesting to repeat the test meal findings in some years time. It was not possible to determine whether the excellent response was due to vitamin B₁₂ or to folic acid because the patient needed the addition of folic acid covered with large doses of B₁₂. Both the upper motor neurone and polyneuritic signs responded equally to treatment. This complete resolution of the spastic signs is unusual (Brain 1962). The patient showed mental changes which amounted to a paranoid psychosis. Delusions of persecution are well recognized in pernicious anaemia (Price 1964), but appear to be uncommon in younger patients (Cecil and Loeb 1959). Other psychiatric syndromes described in pernicious anaemia include mild dementia with impaired memory and intellectual capacity, a Korsakow's psychosis, and a primarily affective disorder with depression and suicidal tendencies (McAlpine 1929).

Summary

A patient with megaloblastic anaemia with polyneuritic and upper

motor neurone signs is described. Marked mental symptoms were present. Complete recovery occurred on treatment.

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THERAPEUTIC TRIALS

ANALYSIS OF DIURETICS AND THIAZIDE-INDUCED DIABETES IN GENERAL PRACTICE

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IN AN EARLIER PAPER (Anderson 1966) the incidence of thiazide-induced diabetes mellitus was shown to be one per 1,250 patients in a joint practice of 10,000 approximately. The detailed analysis is now submitted of my own practice 3,000 patients in all. As my practice is part of a large group in process of preparing the necessary details prior to introducing the 'Diagnostic Index' system, a simple rapid method was devised which has worked extremely well in practice.

Method

A card was prepared exactly the same measurements as the E.C. 7 and 8 but white in colour. These measurements allow one to be slipped into a record envelope and also filed in an ordinary record drawer as and when required. The identification headings are as on the E.C. 7 and 8 but thereafter the card is ruled vertically giving boxes on each side—the left hand for diseases, the right side for drugs. Ten boxes are made in each side to the exact width of Sellotape leaving a square on the margins which can be used for notching if this method of analysis should be chosen. The bottom edge equivalent to the unruled edge of the E.C. 7 and 8 is again ruled in ages but this time leaving a clear box at the edges. The various disease groups and drugs were printed with the card and still leaving some blanks though incorporating some further information which interests me though irrelevant to this particular survey (figure 1). The reverse side contains one central box to incorporate social group,