recovered. Of the four arms in which the seventh cervical root was also damaged, three recovered fully and one partially. Three of the six flail arms fully recovered and three partially recovered. Recovery generally followed a centripetal pattern, the more distal movements returning first. In cases of eventual full recovery the outcome was apparent within one week to five months, although observation was continued for an average of nine months to confirm the accuracy of the assessment. All arms that recovered showed some improvement within the first two weeks and most had returned to apparent full function within one month. No persistent joint contracture developed in any of the 18 arms in which neurological recovery was apparently full. Six arms remained partially but permanently paralysed. They improved up to 12 months, but little after that. In all, paralysis of the external rotators of the shoulder persisted, this being the only deficit in two. All developed an internal rotation contracture at the shoulder of between 30° and 90°, and four had loss of up to 40° extension at the elbow.

Reconstructive procedures were delayed until the child was around 4 years old—old enough to co-operate in preoperative muscle charting yet before starting school. A teres major tendon transfer was done in three children, permission being withheld in a fourth. One child also had a flexor-to-extensor transfer at the wrist. The outcome of this type of operation was reviewed by Wickstrom.⁴

Discussion

These findings indicate that some recovery occurs in nearly all cases of Erb's palsy, even when the whole plexus has been damaged, and that three out of every four fully recover within a few months. In cases of full motor recovery contractures may be prevented by simple passive exercising, a procedure well within the capacity of the mother. There is no need to splint these limbs, as is sometimes still advocated.¹⁰⁻¹² Contractures reflecting the residual muscle imbalance are difficult to prevent in patients with irrecoverable plexus damage. Parental manipulations have not proved sufficient, loss of external rotation range at the shoulder being particularly troublesome. Surgery is the only effective treatment for these difficult cases. It is hard to see how splinting—for example, in an abducted and externally rotated position—could prevent these contractures. Indeed,

splinting may cause contracture.⁶ It is impossible at an early stage to predict which cases will recover and which will not. Therefore, to splint when an effective, risk-free method of treatment is available is to take an unjustifiable risk of causing an iatrogenic contracture in a limb which would otherwise probably recover.

In all cases in the present series the muscles supplied by the suprascapular nerve (supraspinatus and infraspinatus) appeared to be paralysed at least temporarily, and persistently in all those limbs that failed to recover completely. Probably this nerve suffers severely in depression of the shoulder, both because its course between the plexus and the scapula is short and because it is relatively firmly fixed to the bone where it passes through the suprascapular notch. It appears particularly apt to suffer neurotmesis, while anatomically more caudal nerves with a longer course and serving more peripheral muscles suffer only a neuropraxia and rapidly recover. Hence the rather paradoxical centripetal pattern of recovery.

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Reducing outpatient attendances

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Summary

Outpatient attendances can be reduced by indirect contact by letter and telephone; this frees the consultant to concentrate on patients attending for the first time. Such methods have not yet been fully exploited in the National Health Service.

Introduction

Some consultations in National Health Service hospitals take place between patient and doctor at the outpatient clinic. In

private practice in Britain and in other countries, notably the USA, letters and the telephone are often used as additional means of consultation. Selective use of these can reduce the strain on patients, doctors, nurses, and records clerks and has been successful in a surgical clinic devoted mainly to diagnosing and treating upper gastrointestinal tract disorders.

Initial attendance

Limitation of future visits depends, among other things, on creating good relations with patients when they first attend. The initial consultation is therefore conducted without hurry. This is achieved by starting clinics promptly and by making special appointments so as to avoid too many patients waiting with the consequent curtailing of interviews. At the end of the examination, plans for future investigation and management are discussed with the patient and, when possible, accompanying relatives.

Patients are given further appointments only if subsequent management is likely to be affected by the results of the initial investigations. When such tests are unlikely to produce fresh evidence, selected patients are told that they will be informed of the results by letter but

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need not attend unless requested to do so. Some of the patients who have been started on a course of treatment are asked to report their response by letter or telephone without attending the clinic.

Elderly and disabled people and those who need to be accompanied or are brought by ambulance are particularly suitable for such management, as are mothers with young children, those who cannot easily leave their work, and those who travel long distances to reach the hospital.

A report is sent to the referring doctor telling him of the clinical impression and the suggested method of treatment. Arrangements are made for the patient's notes and results of investigations to be available, usually at a subsequent clinic, so that a further report can be sent to the general practitioner and to the patient.

Inpatients

Patients admitted to hospital are not invariably brought back to the outpatient clinic. After conclusive investigations or full recovery from straightforward operations they are advised about future management and discharged. Since it is often the relatives who become anxious, especially about too-early discharge, they are interviewed on the wards and are invited to attend at the beginning of outpatient clinics for further discussion. In addition, close relatives are telephoned, usually by prior arrangement, at the conclusion of major operations.

Postal contact

This is a two-way service. Patients are informed of the results of tests, given advice about symptoms, and, if necessary, sent appointments to outpatient clinics. They in turn report progress, ask advice, and state the effects of treatment. Some patients write only once, while others are requested to write at regular intervals. Each is given an instruction sheet with the address for letters and a reminder to state name, address, hospital number, and date of any operation and to note any symptoms. So far as possible all letters are acknowledged and advice, reassurance, or an outpatient appointment is given.

What are the dangers of blood transfusion in the tropics?

If donors are tested for Australian antigen and excluded if found positive, the risks of transmitting hepatitis are greatly reduced. The problems of risk and of prevention of accidentally transmitted hepatitis by blood and blood products in hospitals, blood transfusion centres, renal dialysis units, and laboratories have been fully reviewed.^{1 2} So far as transmitting syphilis is concerned, *Treponema pallidum* may maintain its transmissibility to man for not more than four days in stored blood. Storage for 24 hours in the refrigerator is not enough to eliminate the risk. The best way to prevent post-transfusion malaria is to give routinely to the donor a three-day curative course of chloroquine. There is no danger of transmitting any parasite that requires an extrinsic incubation period in a vector. Thus neither schistosomiasis nor filariasis can be transmitted by blood transfusion, nor can hookworm infection, since this requires a period of incubation in the soil. A protozoal infection that can be transmitted by blood transfusion is Chagas's disease.

A comprehensive review of the subject of blood transfusion and tropical disease has been given by Bruce-Chwatt.³

¹ Maycock, W d'A, *British Medical Bulletin*, 1972, **28**, 163.

² Marmion, B P, and Tonkin, R W, *British Medical Bulletin*, 1972, **28**, 169.

³ Bruce-Chwatt, L J, *Bulletin of the World Health Organisation*, 1974, **50**, 337.

What is the treatment of histiocytic lymphoma?

The diagnosis of histiocytic lymphoma (reticulum cell sarcoma) depends on a histological appearance, which is often difficult to distinguish from other lymphoid tumours. The proportion of patients with lymphoma given this histological label varies quite widely between different pathologists, which partly accounts for the different estimates of prognosis and response to treatment. The most optimistic recent report is that of DeVita *et al.*¹ Several questions need to be

Telephone contact

Many patients may be contacted at home or business by telephone, yet this is the least-used method of communication between doctor and patient in the National Health Service. They can be given the results of tests, reassured about symptoms, advised about future management, or asked to attend outpatient clinics. A few patients are encouraged to report by telephone, usually during outpatient sessions, when their notes are made available. This is appreciated by elderly people who may wish to discuss a troublesome symptom without the anxiety and discomfort of an ambulance journey.

Follow-up

An important function of outpatient clinics is to assess and record the results of treatment. Many patients with diseases affecting the upper gastrointestinal tract could provide such information without coming to the clinic, since symptoms are often more important indications of further trouble than physical signs. Selected patients are still requested to report at fixed (normally yearly) intervals, while patients who have had operations that are subject to review receive a questionnaire every three years. A few patients are unhappy with indirect methods of consultation and will need to continue to attend personally.

Pros and cons

The most exhausting aspect of conducting a busy outpatient clinic is the need to take up and conclude many personal relationships under pressure of time. A certain leisureliness is required to become sensitive to the patient's anxieties and need for reassurance, and a relaxed atmosphere can be provided only by reducing the number of attendances. Considerable organisation and co-operation are necessary, however, to deal with the frequent letters and telephone calls to and from patients. The amount of time spent on patients' problems may not be much reduced, and a fall in outpatient attendance figures should not be interpreted as a failure to accept a full share of the work.

asked. How certain is the diagnosis? Where are the sites? What local symptoms, if any, is the patient complaining of? What is his general condition? Usually, with any lymphoid tumour (whether Hodgkin's or non-Hodgkin's disease) chemotherapy is best for generalised disease (combinations of different drugs show a higher response rate than single agents) and radiotherapy for curing localised disease or for relieving local symptoms. Both may be needed. Either can do more harm than good, if not handled by specialists, possessing both expert knowledge and good clinical judgment. If the patient has no symptoms, it is always difficult to know whether or not to go on giving aggressive chemotherapy. At present, fashion (and a certain amount of hard evidence) favours the "hawks," who are anxious to keep on attacking the disease, rather than the "doves," who aim just to relieve symptoms and keep side effects of treatment to a minimum. I know of no good evidence that diet can influence the course of this or any other malignant disease in man. Surgery seldom forms any part of treatment, except that splenectomy may have a place. Current immunotherapy has little to offer on its own. Randomised trials to confirm its marginal value in combination treatment are slow to appear.

¹ DeVita, V T, jun, *et al*, *Lancet*, 1975, **1**, 248.

Do the coloured flashing lights in discotheques trigger fits in epileptics?

The rate of flicker most likely to bring on fits is from 14 to 20 flashes a second, but a few patients may have fits at much slower rates of flicker. The Greater London Council has banned rates of flicker faster than 8/s in discotheques. Few or no cases of epileptic fits precipitated by the stroboscopes in discotheques have been reported; but they could have occurred without anyone reporting them. Obviously also the general atmosphere of a discotheque might lead to hysterical fits or to epileptic fits brought on by excitement.