

from the one launched by the B.U.P.A. for both private and health service patients in 1972. They should also be distinguished from the long-established contributory schemes like that of the Hospital Saving Association which in addition to cash payments to a contributor, or a spouse, in hospital makes grants towards spectacles and false teeth, for a stay in a convalescent home, for mental illness, for maternity (whether delivery takes place at home or in hospital), and for some of the cost of being ill at home.

Other than the promoters three sets of people are potentially affected by the cash-in-hospital schemes—the patient-beneficiaries, their doctors, and hospital staffs and administrators. The benefits for patients are largely illusory. At £3 or £5 a night they go nowhere near paying for the cost of private treatment in hospital; nor, since they cease on a patient's discharge, do they compensate him for loss of earnings during illness, the length of which is unlikely to coincide with the length of a hospital stay. For these reasons hospital cash insurance was given short shrift¹ in *Money Which?* last year. Now the schemes have been criticised on actuarial grounds by C. E. B. Frost and Audrey W. M. Ward of the Department of Community Medicine of the University of Sheffield.²

Using the hospital inpatient inquiry for 1970, the mental health inquiry, and the Registrar-General's review to determine the risk of being admitted to hospital in the population as a whole, these authors calculated that all six commercial schemes analysed showed a considerable surplus of premiums received over benefit liabilities on subscribers aged under 35 on entry. Most of them showed a surplus on older subscribers too. The surplus tended to fall with an increase in age, but the authors commented that this cross-subsidisation among age-groups was reduced by practices that discriminated against the elderly. For instance, two schemes excluded people admitted to geriatric wards, all disallowed pre-existing illnesses until at least a year had elapsed, and all but two set a limit, in cash or time, to the total benefit payable. The benefit liabilities of the schemes were further reduced by the exclusion of mental illness as a cause for admission to hospital (another discrimination against the elderly), along with alcoholism, addiction, acts of war, and usually pregnancy and childbirth.

Elderly people admitted to hospital do not usually have the financial responsibilities of a man of working age, and any cash payments for which they do manage to become eligible will not be compensating them for loss of earnings but will be additions to their pensions. As Frost and Ward shrewdly point out, for pensioners the schemes "cannot be considered as providing insurance against a quantifiable loss but rather as a means of gambling for the elderly."

The B.M.A. has taken a deliberate decision^{3 4} not to sponsor or support hospital cash insurance schemes (one of which had offered special terms to the Association's members). The decision was taken in the knowledge that in the U.S.A. patients had put pressure on doctors to admit them to hospital, or to prolong their stay, so that they could derive maximum benefit from their policies. Frost and Ward point out a possible pitfall for the doctor in addition to this unwelcome pressure. If a scheme offers additional benefits to someone admitted to hospital because of cancer, as at least one does, is the doctor legally obliged to tell him of his condition so that he can claim his extra cash? It is sometimes argued that doctors are too reluctant to tell patients the truth about their illnesses; but it would be unfortunate if they were constrained to do so against their judgement in a particular case because of hospital cash insurance.

Lastly, there are the implications of this insurance for health service administration. The aim is a quick turnover of patients, with a reduced length of stay and an increasing number of conditions treated by day surgery; indeed, the "best buy" hospitals at Bury St. Edmunds and Frimley were planned on the basis that they would provide intensive hospital treatment backed up by full community care. There is a clear conflict between this policy and insurance schemes that pay benefits only for nights in hospital. Such a conflict does not yet appear to have become overt, perhaps because most subscribers are in the age-groups unlikely to be admitted to hospital and perhaps because in any case the schemes are not proving very popular. The non-profit-making B.U.P.A. scheme claims just under 10,000 subscribers. The commercial schemes, being competitive, are not so frank, but it would be surprising if between them they could claim 100,000, despite their aggressive advertising. By comparison, contributors to the standard plan of the Hospital Saving Association number 800,000 and to its Crown plan 50,000.

¹ *Money Which?*, September, 1973.

² Frost, C. E. B., and Ward, A. W. M., *British Journal of Preventive and Social Medicine*, 1973, 27, 197.

³ *British Medical Journal Supplement*, 1973, 1, 120.

⁴ *British Medical Journal Supplement*, 1973, 2, 154.

Coping with Nose-bleeds

Epistaxis is a common problem among children, adolescents, and young adults and is rather more frequent in the summer months than at other times. The nasal blood vessels are always in a state of activity, contracting and expanding with changes in temperature and humidity, and this activity is perhaps more vigorous in the earlier years of life. Even so, the reasons why dilated blood vessels sometimes bleed or why the bleeding so often comes from Little's area on the septum are still unknown.

In cases of hypertension and of arteriosclerosis, usually later in life, it is easy to understand that a brittle blood vessel could break down when dilated with blood. This may occur in Little's area or where the mucosa is stretched over a bony spur. Such bleeding may be beneficial, acting as a safety valve to prevent blood vessels in more important areas from breaking.

These two categories account for probably 99% of all cases of nose bleeding (excluding trauma), but it can be due to other lesions such as tumours, blood dyscrasias, hereditary familial telangiectasia, and during anticoagulant therapy. In none of these conditions is fibrin formation inhibited, except to a slight degree by some of the anticoagulants, and there is no specific effect on formed fibrin. A recent suggestion¹ that inhibition of fibrinolysis might be useful in the management of epistaxis seems, therefore, to have little theoretical justification.

In the average case of juvenile bleeding pinching the front of the nose for a few minutes while the patient is recumbent and supine will usually stop or at any rate slow the bleeding and enable precise identification to be made of the site of the broken vessel. Arteriosclerotic bleeding is often from posteriorly placed vessels and is sometimes concealed by the anatomical structure. Identifying the site of bleeding can be a difficult matter, but it is facilitated by careful examination with a good headlight or headlamp, using a local (topical) anaesthetic, a vasoconstrictor, and suction. When a blood vessel breaks behind an obstructing septal spur and cannot be seen its presence can often be inferred with some certainty. Wherever a bleeding point is seen it should be sealed with the

electric cautery. If the bleeding point is near the mucocutaneous junction, an injected local anaesthetic may be needed. The alternative of smearing the area with caustic chemicals is inaccurate and uncertain and damages more of the surrounding mucosa than is necessary. In those arteriosclerotic and hypertensive cases where the bleeding point is hidden by a spur it can be resected in order to disclose the broken blood vessel. Usually it is more expedient to pack the bleeding area with half-inch (12 mm) ribbon gauze impregnated with bismuth and iodoform paste and to rely on the natural processes of thrombosis to take effect while the bleeding point is controlled by pressure. An air inflated rubber bag is another method of applying pressure to a relatively inaccessible bleeding point; less specialist expertise is needed and the technique is useful in the casualty department if simple pinching of the nose does not work.

Occasionally bleeding from a posterior site can be controlled only by a post-nasal pack, sometimes in combination with anterior packing. General anaesthesia is necessary and this is hospital procedure. The pack is inserted through the mouth and pulled into position by two attached tapes sutured or tied to a fine rubber catheter passed through each nasal cavity. The tapes are tied together or otherwise fixed to keep the pack firmly in place; it can remain for two or three days. Antibiotic cover may be considered advisable.

If all these methods fail an attempt may have to be made to ligate the blood vessels supplying the area. If the site of the bleeding is superior or lateral the anterior and posterior ethmoidal vessels are the probable feeders. They can be reached fairly easily through an incision in the inner canthus and retracting the orbital periosteum laterally. More posterior bleeding may be due to branches of the internal maxillary artery, which can be reached by a Caldwell-Luc approach to the maxillary sinus and partial resection of its posterior wall. External carotid ligation has also been advised. Fortunately such cases are most unusual.

¹ Jash, D. K., *Journal of Laryngology and Otology*, 1973, 87, 895.

Misdiagnosis in Still's Disease

When George Still¹ first described a chronic form of joint disease in children he considered it to be different from rheumatoid arthritis in the adult—a form of arthritis, in fact, distinct from rheumatoid disease. Time has not upheld these differences.

When E. G. L. Bywaters² gave his Heberden oration on the subject in 1966 he pointed out that Still had described three types of chronic joint disease in 19 children. They comprised a possible Jaccoud's syndrome (one case), rheumatoid arthritis as in adults (six cases), and 12 cases characterized by glandular and splenic enlargement. This third group is now known as "Still's disease" and is generally considered to be rheumatoid arthritis in young people, in whom fever, splenomegaly, and lymphadenopathy occur more readily.

Since any inflammatory arthritis of childhood is apt to be diagnosed Still's disease, Barbara Ansell and Bywaters³ set out certain diagnostic criteria: onset before the age of 16 years; inflammation of four or more joints for a minimum period of three months; and, if fewer than four joints were involved, synovial biopsy changes compatible with this diagnosis, all other diseases being excluded. But the same authors⁴ pointed out that monarticular arthritis in children is often due to

Still's disease. Of 316 patients with juvenile rheumatoid arthritis in their series 33 presented in this way. The one joint affected was usually the knee. The criteria for the classification of juvenile rheumatoid arthritis and its differential diagnosis are discussed in detail in a recent bulletin.⁵

There is no doubt that juvenile rheumatoid arthritis tends to be diagnosed too readily on too little evidence, and E. M. Sills,⁶ of the department of paediatrics at Johns Hopkins Hospital, has recently pointed out how often this now relatively uncommon disease is diagnosed when in fact the condition is due to some other disorder. He examined 50 consecutive children aged 9½ months to 15 years referred with a presumptive diagnosis of juvenile rheumatoid arthritis over a 30-month period in 1970-72. Thirty-three were girls, 17 boys, and the duration of the illness ranged from 2 to 26 months at the time of referral. In all but seven cases treatment had been instituted as for juvenile rheumatoid arthritis, but of these 50 cases only 29 were shown with certainty to have that disease. In five cases the diagnosis remained uncertain; the other 16 patients were found to be suffering from systemic lupus erythematosus (2 cases), dermatomyositis (1), scleroderma (1), regional enteritis (1), infectious disease (3), leukaemia (4), giant-cell tumour of bone (1), lymphosarcoma (1), and osteochondrosis (2). Bywaters,² following up 25 cases of probable Still's disease for ten years, found in the final analysis ankylosing spondylitis (1), psoriatic arthritis (1), dermatomyositis (1), scleroderma (1), systemic lupus erythematosus (2), ulcerative colitis (2), and osteochondritis (1). In 13 cases a complete recovery was made and the diagnosis remained uncertain. In the same study a ten-year follow-up of what were regarded as definite cases showed only one misdiagnosis, and that was in a child who later developed ankylosing spondylitis. Only three of these 25 "definite" cases made a complete recovery.

Many other conditions may cause pain in one or more joints. They include injury, haemarthrosis from various causes, local infections such as tuberculosis, osteomyelitis, and pyarthrosis or abscess formation in the region of a joint. Some general infections among them such as kala azar (leishmaniasis), may cause fever, splenomegaly, and arthralgia in one or several joints and even give a positive latex or Rose-Waaler test. In these days of Mediterranean holidays and package tours for the entire family this is a point worth remembering. Other forms of arthritis such as rheumatic fever can also occur in children, and it is as well to remember that ankylosing spondylitis may begin in the peripheral joints in childhood.

The possibility of a blood disorder should always be borne in mind. Of 450 patients with leukaemia reported by M. N. Silverstein and P. J. Kelly⁷ 40% had polyarthralgia or monarticular arthritis or both, and Sills⁵ points out that bone and joint symptoms may antedate changes in the blood and bone marrow, so that normal or near normal blood smears and marrow biopsies do not necessarily exclude this diagnosis in early cases. Haemophilia and other bleeding disorders, Henoch-Schönlein's purpura, sickle-cell disease, and a host of other disorders may cause articular symptoms, as may several congenital and constitutional disorders.⁸

In juvenile rheumatoid arthritis in addition to joint changes there may be a rash, fever, lymphadenopathy, splenomegaly, pericarditis, iritis, and nodule formation. Any of these findings may, taken in conjunction with clinical evidence of acute arthritis in one or more joints, suggest the correct diagnosis, but they may also mislead. Joint pain, splenomegaly, and lymphadenopathy occur, for instance, in many infective and haematological conditions.