

pulmonary maturity is attained, and more depends on this than anything else. So it is the time of delivery that matters, because that is what determines lung functional development—a view borne out by Gabert *et al.*,<sup>6</sup> who showed that caesarean section was not associated with respiratory distress when the lecithin-sphingomyelin ratio offered a good prognosis. Although Usher *et al.*<sup>7</sup> thought that caesarean section was associated with the distress syndrome, they too found it to be virtually eliminated if the length of gestation was 37-38 weeks. Similarly the second perinatal mortality survey<sup>1</sup> found that probably the respiratory distress syndrome could not be firmly associated with caesarean section but was mainly associated with pre-eclampsia, placenta praevia, other antepartum haemorrhages, and some elective sections. In all these cases "iatrogenic immaturity could be a factor."

<sup>1</sup> Butler, N R, and Alberman, E D, *Perinatal Problems. Second Report of the 1958 British Perinatal Mortality Survey*. Edinburgh, Livingstone, 1969.

<sup>2</sup> Department of Health and Social Security, *Report on Confidential Enquiries into Maternal Deaths in England and Wales 1970-1972*. London, HMSO, 1975.

<sup>3</sup> Reis, R A, Gerbie, A B, and Gerbie, M V, *Surgery, Gynecology and Obstetrics*, 1970, **130**, 124.

<sup>4</sup> Gluck, L, *et al*, *American Journal of Obstetrics and Gynecology*, 1971, **109**, 440.

<sup>5</sup> Gluck, L, and Kulovich, M V, *Year Book of Obstetrics and Gynaecology 1972*, ed J P Greenhill, p 256. Chicago, Year Book Medical Publishers, 1972.

<sup>6</sup> Gabert, H A, Bryson, M J, and Stenchever, M A, *American Journal of Obstetrics and Gynecology*, 1973, **116**, 366.

<sup>7</sup> Usher, R H, Allen, A C, and McLean, F H, *American Journal of Obstetrics and Gynecology*, 1971, **111**, 826.

## Idiopathic oedema of women

The stage is set for misunderstanding, confusion, and mistrust when the true nature of an illness is unrecognised, especially if its symptoms are discounted because the signs vanish as soon as the patient is investigated at rest in hospital. Soon nobody is sure whether the complaint has caused neurosis or neurosis the complaint. Idiopathic oedema of women<sup>1 2</sup> (also known as cyclical or periodic oedema) is a good case in point, a syndrome which can be relied upon to cause resentment and frustration to patient and doctor alike.

As its name implies, this oedema cannot be attributed to heart failure, renal or hepatic disease, hypoproteinaemia, or lymphatic or venous obstruction; to sodium-retaining medicines such as phenylbutazone, carbenoxolone, or oestrogens; or to hypotensive agents. Attacks may be intermittent, or swelling may wax and wane dramatically yet never disappear completely. Early symptoms may mimic premenstrual tension, but the fluctuations become capricious, apart from a tendency for oedema to appear or increase during warm weather, on prolonged standing, and before the menstrual period. Most patients present in their 30s or early 40s; none before the menarche and none after the menopause, though once established the syndrome may continue after the menopause.

Differentiation from the premenstrual tension syndrome is not generally difficult, for in that syndrome weight gain is small and the many subjective symptoms correlate poorly with it. If a diurnal weight gain exceeding 1.4 kg is used arbitrarily to define the extent of fluid retention<sup>3</sup> a moderately homogeneous syndrome emerges,<sup>4</sup> which, however, seems only to be the tip of an iceberg of unexplained oedema in women. All the daily gain is not lost at night, and the extracellular

fluid volume increases stepwise, until at last diuresis ensues and body weight subsides to normal. During attacks the face and hands are puffy on waking; as the day progresses gravity collects the fluid in the legs. Very rarely the patient becomes orthopnoeic and dyspnoeic on exertion because of pulmonary oedema. Attacks often seem to coincide with stress and strain, but which comes first is far from clear. Studies in Canada have exposed an alarming degree of disturbance associated with this relapsing syndrome, as shown by a divorce rate 30 times the national average.<sup>5</sup>

An abnormally large leak of plasma fluid from the circulation in an upright posture is the essential abnormality; when the patient is standing, packed cell volume quickly rises and plasma volume falls.<sup>4</sup> The cause of the presumed capillary abnormality is tantalisingly obscure. Unlike normal women, whose plasma volume falls less on standing during the follicular than during the luteal phase of the menstrual cycle,<sup>6</sup> the abnormality of tissue microcirculation in these women is independent of the menstrual cycle.<sup>7</sup> Contrary to earlier suggestions, renal sodium retention correlates well with the fall in plasma volume and is appropriate to the size of the reduction. Likewise the increased plasma renin and aldosterone concentrations in more florid cases are appropriate compensatory changes, and though they may escape abnormally slowly from the action of mineralocorticoid hormones most of these patients succeed in resetting their response.<sup>4</sup>

More than one mechanism mediates the retention of salt and water<sup>8-11</sup> which begins within minutes of tilting these patients into an upright position—a rapidity of onset too great to be explained in terms of increased renin and aldosterone. The fact that the urinary sodium:potassium ratio does not alter also denies a distal tubule mechanism.<sup>4</sup> Glomerular filtration falls by 5 to 10%, but this fall is insufficient to account for the change in urine composition and volume. Increased proximal tubular reabsorption of salt and water provides the only satisfactory explanation for the diminished sodium excretion, though its mediation here is not fully understood. Reduced urinary volume is partly attributable to antidiuretic hormone (ADH) secretion, because even during a forced diuresis (which suppresses ADH secretion) urinary osmolality often increases when these individuals stand.<sup>4</sup> Further, they become able to excrete a water load normally when in an upright position if ADH secretion is inhibited by ethanol.<sup>9</sup> In a small subgroup of patients standing is associated only with water retention; these appear to be the mildest cases of the syndrome.<sup>11</sup>

Treatment is unsatisfactory and in one respect paradoxical. Plasma volume is already low; further depletion by diuretics is likely both to worsen symptoms attributable to hypovolaemia and to reinforce the compensatory sodium and water retention. This latter effect may be particularly undesirable in the occasional woman who seems persistently to overcompensate for reduced plasma volume and who, after an initial worsening of the oedema, may paradoxically lose her oedema altogether when diuretics are stopped.<sup>12</sup> A diuretic is usually necessary, but the dose should be as small as possible: a preparation such as chlorthalidone should be chosen to achieve a mild and prolonged diuresis, aided perhaps by a potassium-sparing diuretic such as amiloride or spironolactone. Diuretics should be withdrawn from time to time to establish whether the tendency to oedema has spontaneously remitted, but the patient must be prepared for her oedema to get worse initially.

Constipation, a frequent feature of the idiopathic oedema syndrome, is likely to be intensified by diuretic-induced dehydration and hypokalaemia. Laxatives further threaten potassium conservation. Patients sometimes discover that excessive

purgation dehydrates them sufficiently to banish their oedema—a remedy which easily develops into a potentially dangerous habit of over-purgation. If purgatives are needed, bulk purgatives seem less likely to cause potassium depletion.

Other measures are important but of limited benefit. For a start, a diurnal weight chart usefully establishes the severity of the syndrome. Prolonged standing must be avoided, even if this means a new job. Smoking is undesirable, because nicotine induces ADH secretion, which is better avoided even if its role in the syndrome is only minor. Finally, the patient's symptoms must be both believed and explained to her, while the psychiatric disturbances associated with the syndrome deserve sympathetic and appropriate treatment.

- <sup>1</sup> Thorn, G W, *American Journal of Medicine*, 1957, **23**, 507.
- <sup>2</sup> Leutscher, J A, and Liebermann, A K, *Journal of Clinical Investigation*, 1957, **33**, 1441.
- <sup>3</sup> Thorn, G W, *Journal of the American Medical Association*, 1968, **206**, 333.
- <sup>4</sup> Edwards, O M, and Bayliss, R I S, *Quarterly Journal of Medicine*, 1976, **177**, 125.
- <sup>5</sup> McKendry, J B R, MacClaren, M C, and Bloom, G M, *Excerpta Medica International Congress Series*, 1966, **134**, 59.
- <sup>6</sup> Edwards, O M, and Bayliss, R I S, *Clinical Science*, 1973, **45**, 495.
- <sup>7</sup> Edwards, O M, and Bayliss, R I S, *Clinical Science and Molecular Medicine*, 1975, **48**, 331.
- <sup>8</sup> Streeten, D H P, and Conn, J W, *Journal of Laboratory and Clinical Medicine*, 1959, **54**, 949.
- <sup>9</sup> Streeten, D H P, and Speller, P J, *Metabolism*, 1966, **15**, 53.
- <sup>10</sup> Kuchel, O, et al, *Annals of Internal Medicine*, 1970, **73**, 245.
- <sup>11</sup> Streeten, D H P, et al, *Clinical Science*, 1973, **45**, 347.
- <sup>12</sup> MacGregor, G A, Tasker, P R W, and De Wardener, H E, *Lancet*, 1975, **1**, 489.

## Caring for the elderly

"Why should an old person be called a geriatric?" someone asked at the last conference of the Royal College of Nursing. "We do not call a child a paediatric." The need for more humanity in our dealings with the elderly is the central theme of a recent report<sup>1</sup> by a working party from the British Geriatrics Society and the Royal College of Nursing. Sadly, there is no doubt that there are still many places where, though staff may be well-intentioned, patients are treated inappropriately, inadequately, or inhumanely.

The quality of an old person's life is of prime importance, and if it is to be spent in an institution this quality will be closely linked with staff attitudes and training. The staff of geriatric institutions have special problems engendered by the nature of their work, but when these are identified and dealt with patients as well as staff will benefit. Furthermore, the ward staff must be supported by administrators who are willing and able to give a lead and improve and correct material differences. Staff morale will rise in response to clearer insights into the needs of patients as people and in synergism with better working conditions and will result in more happiness and a better life for the whole community. "In hospital quality of life is closely associated with that of the staff, who share with the patient the common human needs for recognition of worth and for self-esteem."<sup>1</sup>

Over the last few years the general public has been saddened by reports on institutions for the old and the handicapped.

One of the things that must pain all professionals is that sometimes old people on admission have spectacles, dentures, and hearing aids removed—a practice so common that it has a name, "stripping." People thus deprived of all sensory input and dignity can but deteriorate in spirit and intellect; and this fundamental right is recognised in the insistence in the report that hearing aids be kept in working order, spectacles cleaned, and the dentures worn to maintain self-respect.

Ideally all the staff who care for the old should form a team, and, while the doctor may normally be the leader, at some times and in certain circumstances the innovator may come from another grade. Relations should be such that ideas or suggestions can come from any level. While nurses spend most time with the patients, administrators have a major role in ameliorating conditions and morale, and in this the catering and domestic staff too hold key positions. While there should be more emphasis on ways of preserving dignity and a measure of independence for elderly patients, their material conditions should not be neglected. Safety and fire precautions, the maintenance of continence, and the provision of suitable clothing should all be considered.

A correspondent suggested recently in the *BMJ*<sup>2</sup> that the old living in the community may be subject to mental and physical harsh treatment, and the *Guardian*<sup>3</sup> has discussed possible "granny bashing" and how it may be identified. If this is indeed a problem it may be true that geriatric staff are not alone in needing support and counselling. The insistence of this report on the importance of individuality and identity to those in institutional care may be the key to initiating a new attitude; this may, perhaps, start a chain reaction in improving the life of all who must live in such institutions, and of those who work there.

<sup>1</sup> *Improving Geriatric Care in Hospital*. London, Royal College of Nursing, 1975.

<sup>2</sup> Burston, G R, *British Medical Journal*, 1975, **3**, 1975.

<sup>3</sup> *Guardian*, 5 February 1976.

## Exeter meeting

Almost always the BMA's clinical meetings are arranged in places with other attractions for visitors, so that doctors can bring their wives and families for a few days away from home in the knowledge that they will find plenty to do. The spring meeting in Exeter from 8 to 10 April showed how well the package can work. The weather was perfect, as was the setting of the meeting in the university campus. Doctors attending the scientific sessions were entertained as well as being instructed (see report p 1007). Their families enjoyed visits to the cathedral and other local beauty spots or simply ran the gamut of the antique shops, and in the evenings relaxed in the warm atmosphere of Devon hospitality. Dr Jane Richards, the honorary general secretary; Dr B J Kirby, the science secretary; Professor David Mattingly, the chairman-elect; and Mrs B Chudecki, the convener of the ladies' programme, are to be congratulated on a happy, relaxed, and thoroughly successful occasion.