site of perforation. In only one case was the problem bilateral.

Embedded earrings were removed, usually under local anaesthesia, but one child required general anaesthesia. Infected lobes usually drain and heal once the earring is removed, but one patient had an abscess which required incision and drainage. Three children needed antibiotics, one because a β-haemolytic streptococcus (Lancefield group A) was isolated. One child was ill with pyrexia and needed hospital admission because her mother felt guilty about having had her ears pierced and was convinced she had meningitis; she did not. Although we do not know about the child with keloid, who did not attend for follow-up, in all other cases the ear eventually healed well.

All the children suffered discomfort, three needed antibiotics, one a general anaesthetic, and one hospital admission. Ear-piercing is a fashion at present—at least in Sheffield—among adults as well as children and even among boys, who frequently have one ear pierced. Although it has always been a practice among the immigrant community the children we now see are predominantly white and we have seen very young children, even babies, with pierced ears. The number of such cases has increased markedly over the past nine months.

Although we do not know the incidence of complications of ear-piercing, we are concerned about the problems that it causes. In addition to those already seen we consider it possible that serum hepatitis could be transmitted in this way. In our view the medical profession should discourage this practice. We wonder if any colleagues have similar cases to report or views on the subject.

ANN L JAY

Accident and Emergency Department,
Children's Hospital,
Sheffield

Stress incontinence

SIR,—As practising gynaecological surgeons we are somewhat disturbed by the excessive emphasis placed on the use of urodynamic and cinecystographic techniques in the management of stress incontinence. Not only in your leading article (2 July, p 3) but also in the resulting correspondence (23 July, p 261) there is the insinuation that without these techniques one cannot adequately treat this very distressing and difficult problem. We have been extremely fortunate to have the aid of an expert urodynamic unit to which all cases of mechanical and urgency stress incontinence have been referred during the past two years. Reference to this unit has been only after detailed clinical examination of the patients. In most cases we have found that the information as given by the sophisticated techniques corresponds to our own clinical impressions. However, in three cases our clinical examination and evaluation suggested predominantly stress rather than urgency incontinence, although urodynamically an unstable detrusor was noted. Heeding the scientific indications we delayed operation in them for many months, treating the women with conventional methods such as medication, bladder drill, and urethral dilatation. The symptoms persisted. In each case we eventually performed surgery with resultant cure of mechanical stress, and incidentally the co-existing element of urgency incontinence eventually improved. There was also a converse disparity, or so it seemed to us. In about one-third of cases of joint stress and urgency incontinence in which urgency of micturition was a major clinical factor urodynamic studies showed a completely stable detrusor muscle. Operative treatment was therefore indicated, but sometimes the degree of clinical urgency was so obvious that we held back and subsequent follow-up showed the correctness of that decision. It is frankly disappointing that the method is not as concise and helpful as we have been led to expect.

These facilities are available in some teaching centres but not peripherally and it worries us that they might be thought indispensable. As rightly mentioned in your article, well over 50% of patients with stress incontinence do not have prolapse. In these cases you infer that cine voiding studies are imperative. We would suggest that a careful history and physical examination, which would include examining the patient in the supine, prone, and standing positions, would in most cases give one the correct diagnosis. In these days of cost-effectiveness, expenditure of vast sums of money on such sophisticated equipment should be questioned. It seems impracticable to refer every case of stress incontinence without prolapse to the already overcrowded urological units for resolution of a problem that can be effectively done in the outpatient department, though cases of recurrent incontinence certainly warrant these detailed investigations.

We have been using an operative technique[1 2] whose successful employment over 16 years may throw some light on the aetiology of mechanical stress incontinence. You, and others,[3 4] have suggested that the cause of this condition resides in the fact that the bladder base and proximal two-thirds of the urethra are no longer subjected to the abdominal zone of pressures by virtue of their descent through the pelvic floor. In this latter position there seems to be unequal transmission of raised intra-abdominal pressure, especially when the woman stands, with resultant intravesical pressure exceeding intraurethral pressure. Stress incontinence is the result. In an operation devised by one of us (DHL) a sling procedure is performed by which two strands of the sheath investing the rectus abdominis muscle are brought down retropubically and joined in a cruciate fashion underneath the bladder base and proximal urethra to form a new pubocervical fascia.

We believe that the disruption of the pubocervical fascia either during childbirth, as a result of heavy traumatic work, or sometimes following gynaecological operations causes the bladder base to descend into the pelvic area. The cruciate sling operation as described above has been used on just over 100 patients in a 16-year period. Twenty-five women have been followed up for 4-16 years (mean 8½ years) and these will be the subject of a forthcoming report. Most of these patients had had multiple procedures for stress incontinence and the majority of them had a significant element of urgency incontinence. None of these patients had stress incontinence postoperatively and indeed the urgency incontinence improved over a two-year period after surgery. This propensity for the accompanying urgency to improve gradually once the mechanical defect had been corrected has been noted by others.[5] Over the past four years we have completed a further 75 such operations and to date only one woman has returned with recurrent mechanical stress incontinence. She had already had four operative procedures performed for this symptom and had been incontinent since birth.

There is increasing evidence that restoration of the pubocervical fascia is the essential element in the cure of mechanical stress incontinence. Lateral cystourethrograms clearly show the bladder base and proximal urethra to be elevated back into the abdominal zone of pressure by this procedure. Stress incontinence is an extremely disruptive symptom both socially and emotionally and we feel that a national programme for its study, diagnosis, and treatment should be instituted by the Medical Research Council and/or the Department of Health and that special units be established to treat this condition.

D H LEES
A SINGER

University Department of
Obstetrics and Gynaecology,
Jessop Hospital for Women,
Sheffield

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SIR,—Your leading article (2 July, p 2) on stress incontinence raises a number of interesting points which require comment.

Undoubtedly in the past there has been confusion between prolapse and stress incontinence. The two are not necessarily synonymous and successful treatment of incontinence due to urethral incompetence requires a knowledge of what one is trying to achieve. Perhaps the most important points are to elevate the bladder base and flatten the trigonal area and to expose the urethra to intra-abdominal pressure. With this concept in mind the Marshall-Marchetti procedure demands that the paraurethral vagina should be elevated as a sling and held against the back of the pubis. There are various points of operative detail which I believe require attention or the operation will fail. Having re-explored numerous "failed Marshall-Marchettis" I know that often the paraurethral tissues have never been touched and the only adhesion is between anterior bladder wall and posterior abdominal wall. These are failures of comprehension, not of a particular operation, and surely therefore it becomes impossible to assess the results of the Marshall-Marchetti operation without knowing how it was performed in the first place. The Burch colposuspension is probably a better concept and certainly leaves less latitude to the surgeon, and I have recently been persuaded to adopt this procedure as the treatment of choice for urethral incompetence.

As you rightly point out the diagnosis and treatment of stress incontinence may be simple and require no sophisticated apparatus. Full urodynamic investigations must be available to anyone who sets out to treat incontinence, but may I draw your attention to the inestimable value of more simple observations? These are the conscious and unconscious capacities, residual urine, and flow rate. Combined with a simple fluid balance chart and observation by informed nurses, an accurate diagnosis can often be made which is confirmed by subsequent urodynamic studies. These tests can be performed anywhere.

Your article emphasises the difficulty of differentiating stress from urge incontinence. This is particularly obvious in the elderly patient, where the clinical history is almost irrelevant. In my experience the two most common causes of stress or urge incontinence

in the elderly are senile urethritis with outflow obstruction and detrusor instability of neurological origin. I realise that outflow obstruction in the female is a subject of contention—too involved to discuss in a letter—but I believe that this concept of obstruction as a cause of incontinence is of vital importance in the management of these patients and hence I would stress the value of urethral dilatation or urethrotomy in its management. Indeed, treatment of senile urethritis with oestrogens alone will often fail until the outflow obstruction is corrected. You make no mention of these simple but important methods of treatment.

I would add one further small comment—again perhaps arguable. Your allusion to urinary infection suggests that this is a sufficient diagnosis. Surely this is a secondary consequence of bladder dysfunction which may exacerbate incontinence but requires assessment and correction of the functional disorder, which is the underlying cause of infection.

D M ESSENHIGH

Department of Urology,
Newcastle General Hospital,
Newcastle upon Tyne

Shortage of anaesthetists

SIR,—In the correspondence on the shortage of anaesthetists three remedies have been suggested: delegate anaesthetics to nurses or to subconsultant doctors; exploit the situation as a stick with which to beat the administrators of the Health Service; use local, regional, or spinal anaesthesia.

May I put in a plea for the last suggestion, which is generally unpopular because it demands some effort on the part of the surgeon and is often feared or disliked by patients. Dr D L Freedman (13 August, p 456) castigates British surgeons for failing to make the effort to use the various methods of local anaesthesia and suggests that nervous patients should be given 10 mg of diazepam intravenously before starting the operation. However, in recommending such an arbitrary dose he has failed to exploit the use of diazepam both as a substitute for general anaesthesia and as a premedication for local anaesthesia. The response to intravenous diazepam varies widely according to the age, general condition, and nervousness of the patient so that it is essential to titrate the dose against the response of the patient. Using this method doses of between 5 and 60 mg may be required to achieve full sedation and many short procedures such as reductions of fractures and dislocations can be performed under intravenous diazepam alone.

However, if procedures are more prolonged or very painful then an additional intravenous injection of Cyclimorph (10-15 mg of morphine plus 50 mg of cyclizine) is given from a separate syringe via the same needle or cannula. This is extremely effective and greatly extends the use of diazepam as a substitute for general anaesthesia. It also widens the scope of local anaesthesia and enables a tourniquet to be used with little or no discomfort.

In the past 12 months, by using intravenous diazepam with or without Cyclimorph, I have performed 335 out of 776 orthopaedic operations under local or regional anaesthesia. During the same period I have used intravenous diazepam with or without Cyclimorph on 168 occasions in the fracture clinic for manipulations of fractures, changes of plasters or dressings, and manipulations of stiff joints. Moreover, the use of this method has revolutionised work in the casualty department, where, apart from young children, general anaesthetics are rarely used for the emergency treatment of fractures and dislocations.

The combination of intravenous diazepam and Cyclimorph has many advantages. Diazepam enhances both the analgesic effect of morphine and the antiemetic effect of cyclizine so that vomiting does not occur during the period of heavy sedation and a full stomach is of no importance. In about 15% of cases vomiting occurs later, but by this time the patient is awake and the vomiting is mild and causes no distress. Provided the dose of diazepam is carefully titrated significant respiratory depression is unlikely and none of our patients has required artificial respiration.

This method has usually been adopted from choice rather than necessity and it has proved extremely popular with patients. But it has also been used for major surgery, such as amputations, on patients who have been considered unfit for general anaesthesia. Our experience indicates that in the absence of anaesthetists intravenous diazepam and Cyclimorph would allow an even wider range of operations to be performed under various forms of local anaesthesia.

Unfortunately the effect of intravenous diazepam is dramatically reduced in those patients who are on long-term medication with benzodiazepines. I would therefore like to add to the pleas of Dr Andrew Smith and Professor M D Rawlins (13 August, p 447) for discretion in the use of diazepam and other benzodiazepines in order that patients may enjoy the dramatic and indisputable benefits of acute medication.

A W FOWLER

Bridgend General Hospital,
Bridgend, Mid Glamorgan

SIR,—Recent correspondence did not seem to appreciate that it is distortions in salary structure arising from the pay policy which are threatening anaesthetic services in the UK. Current anomalies mean that promotion from training to consultant grade, the ultimate clinical responsibility in the NHS, usually results in a cut of £40 or more per week. There has been a reduction in consultants' living standards by a third or more and many consultants are now working partly or wholly abroad.

At the present maximum on the salary scale a consultant surgeon and anaesthetist are being paid, before tax, £3-4 per hour for a 50-hour week or longer, which is about £8 for a major operation. Surely this is a ludicrous situation when a washing machine repair man charges £5 or more for an estimate. How can we retain our graduates and trainees in the hospital service under these circumstances?

Anaesthetists tend to be in short supply everywhere, and the skills of British-trained anaesthetists are especially prized. For instance, a recent advertisement in the *BMJ* offered a salary for a registrar anaesthetist of £22 000 a year, with free accommodation and food. Consequently it is easy to emigrate permanently or temporarily and that is why in a teaching hospital—usually a highly attractive post—consultant anaesthetist posts are vacant, operating lists are being curtailed, and waiting lists rise. It seems that some surgeons are considering operating under local anaesthetics, not in the patients' interest but, as in more primitive societies, because there is no anaesthetist available. The Government refuses to consider these imbalances until April 1978 and then only minor adjustments are envisaged. No realistic pay structure could therefore be introduced before April 1979.

In the meantime the anaesthetic and therefore surgical services will continue to fall into severe disarray. Most doctors accept the continuing need for a pay policy and have been as patient as, and probably more compliant than, any other professional or industrial group. If essential services in the NHS are to be safeguarded Government must urgently indicate to the profession how and when these anomalies will be resolved. The shortage of anaesthetists could be overcome by the return of even a few of the British anaesthetists at present in the USA, Canada, Australia, and continental Europe, but it is even more important to encourage those to stay who are at present considering emigration.

MICHAEL ROSEN

University Hospital of Wales,
Cardiff

Pinning down the diagnosis in breast cancer

SIR,—We read your leading article on this subject (30 July, p 282) with great interest.

Any method used to obtain a preoperative diagnosis must be entirely reliable so that operative policy can safely be based on it. It must also provide information in a large enough proportion of patients to be of clinical value. While we have found the Tru-Cut needle biopsy satisfactory on these counts,[1] we have abandoned fine-needle aspiration cytology not only because it fails to give useful information on many patients but more importantly (and this was not mentioned in your article) because of the occurrence of false-positive reports of carcinoma in patients with benign breast disease (five out of 35 in our series).

Difficulty in interpretation with respect to carcinoma and benign proliferative lesions is well recognised. We agree that it is fair and realistic for the cytologists to have clinical information, but doubt, however, whether this would overcome the cytological dilemma, as most patients under the age of 35 with a primary cancer of the breast present with a lump which is clinically indistinguishable from a fibroadenoma.

However, all the discussion around fine-needle aspiration cytology of solid lumps is apparently superfluous, as you confidently state that the "observation of malignant-like cells . . . is not sufficient to indicate ablative surgery." Would Franzén and Zajicek,[2] Webb,[3] and Coleman *et al*[4] agree?

C J DAVIES
C W ELSTON
R E COTTON
R W BLAMEY

Departments of Surgery and
Histopathology,
City Hospital,
Nottingham

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