cardiac massage. The apparent resistance to large doses of isoprenaline noted in previous reports^{1,2} was observed. In two reported cases^{1,3} glucagon has been used successfully in the treatment of myocardial depression following beta blockade.

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¹ Kosinski, E J, *et al*, *New England Journal of Medicine*, 1971, **285**, 1325.

² Lagerfelt, J, and Matell, G, *Acta Medica Scandinavica*, 1976, **199**, 517.

³ Ward, D E, and Jones, B, *British Medical Journal*, 1976, **2**, 151.

Limulus test and meningitis

SIR,—The difficulties encountered in the diagnosis of partially treated pyogenic meningitis are stressed in your recent leading article (5 February, p 340). However, we do not agree with the statement that "the limulus test seems unlikely to be generally applicable."

A commercialised form of the limulus test (Mallinckrodt) has been applied to 43 patients with meningitis in our general hospital. The test remained negative (no false-positives) in Gram-positive meningitis (seven cases), tuberculous meningitis (three cases), and viral meningitis (eight cases). In contrast it appeared very helpful in the early diagnosis of Gram-negative meningitis. Twenty-five patients had Gram-negative meningitis, proved by culture or countercurrent immunoelectrophoresis, of whom 24 (97%) gave a positive response in the limulus test, although only 11 (42%) had a positive Gram stain. More particularly, four patients who had received antibiotics before admission had a negative Gram stain in contrast to the positive result of the limulus test.

Finally, from a practical point of view the limulus test appears easy to apply—the rapid procedure (about 15 min), early response (1–4 h), good sensitivity of the commercialised test, and relatively low cost are arguments in favour of its general application.

The practical advantages and the high efficiency of this method in the bacteriological diagnosis of pyogenic meningitis^{1,2} permit early institution of appropriate treatment.

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¹ Nachum, R, Lipsey, A, and Siegel, S E, *New England Journal of Medicine*, 1973, **289**, 931.

² Ross, S, *et al*, *Journal of the American Medical Association*, 1975, **233**, 1366.

Effect of thyrotrophin-releasing factor on lactation

SIR,—Thyrotrophin-releasing factor (TRF) is a potent stimulus for the release of prolactin in lactating women.¹ The rise in circulating prolactin induced by TRF has been said to be associated with breast engorgement and, by inference, with increased milk production.^{1,2} It therefore seemed that TRF might be useful to stimulate lactation in women with inadequate milk for their babies.

We studied six women to assess the rise in milk volume caused by TRF. All were healthy Black women living in Soweto, near Johannes-

burg, and were between two and six weeks post partum. Three were lactating successfully, while three were producing inadequate milk for the infant's needs. The study was approved by the university ethical committee and informed consent was obtained. The production of milk was measured by test-weighing before and after suckling, followed by complete expression. Measurements were carried out over a 24-h control period before the administration of TRF and for two feeds after TRF (that is, 6 h). The administration of TRF and the collection of blood samples for prolactin estimation were timed and carried out as described by Tyson *et al*¹ except that the dose of TRF was 200 µg. Prolactin was measured by radioimmunoassay.

There was a wide variation in basal plasma prolactin levels and in the response to suckling, but the prolactin level rose significantly in five of the six women after administration of TRF. The sixth was lactating very successfully and had high basal levels. There was no correlation between resting or stimulated prolactin levels and the success or failure of lactation. Milk production during the control period fluctuated very widely, as found by Hytten.³ In no case did the milk output rise in the two feeds following TRF administration. In five of the six women the post-TRF feed actually produced less milk than the feed immediately before TRF.

These results suggest that, while lactation is dependent on prolactin, milk production is not proportional to the plasma prolactin level. Other factors must be responsible for lactation failure. An effective galactagogue would be invaluable; however, our results suggest that evaluation of such agents must be based on actual measurements rather than subjective impressions such as breast engorgement.

We thank Professors Wayburne and Hansen for advice and Roche Ltd (South Africa) for supplies of TRF.

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¹ Tyson, J E, *et al*, *Journal of Clinical Endocrinology and Metabolism*, 1975, **40**, 764.

² Tyson, J E, Friesen, H G, and Anderson, M S, *Science*, 1972, **177**, 879.

³ Hytten, F E, *British Medical Journal*, 1954, **1**, 175.

IgA deficiency during penicillamine treatment

SIR,—The report by Dr O Hjalmarson and others (26 February, p 549) of a case of penicillamine-induced IgA deficiency appears to confirm the report of a case from Belgium.¹

After reading the Belgian report we decided to check the serum IgA levels in our own group of patients receiving penicillamine for Wilson's disease. We have currently three adult women with this diagnosis under treatment. Two of them are sisters (now aged 31 and 28 respectively) in whom the diagnosis was made in the autumn of 1975. The elder received penicillamine from February 1976 until she developed the nephrotic syndrome in October 1976. Her IgA level was normal (1.1 g/l (normal range 0.70–3.8 g/l) despite a urinary loss of around 3000 mg/24 h) when penicillamine was withdrawn. Her sister, who tolerated the drug for only six months before developing the nephrotic syndrome, also had

normal IgA levels when the penicillamine treatment was withdrawn (1.0 g/l; urinary albumin 4000 mg/24 h).

Our third patient, a woman now 28 years old whose Wilson's disease was diagnosed in 1970, has been treated with penicillamine and prednisolone (2.5 mg/24 h) since April 1970. IgA levels were followed during the first years of treatment and were on no occasion found to be low, ranging from 2.0 g/l in February 1971 to 1.6 g/l in September 1974. She remains well on 1.5 g of penicillamine daily (steroids were withdrawn early in 1976) and denies any increase in frequency of upper respiratory tract infections. Further, she successfully completed a normal pregnancy in January 1975, giving birth to a normal, healthy baby girl weighing 2780 g. We plan to report this case in full at a later date.

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¹ Proesmans, W, Jaeken, J, and Elckels, R, *Lancet*, 1976, **2**, 804.

Lingual polyp as cause of birth asphyxia

SIR,—Tumours of the mouth and neck occasionally cause birth asphyxia, but we have not been able to find any previous record of a lingual polyp causing respiratory obstruction at birth.

The baby, the third child of a healthy Nigerian mother, was born at term following a pregnancy complicated by moderate polyhydramnios from the 27th week onwards. He was delivered by forceps because of fetal distress, weighing 4020 g. He cried at birth but within a few seconds became cyanosed and appeared to be having respiratory difficulty. Inspection of the upper airways showed a pedunculated tumour arising from the base of the tongue in the midline and obstructing the pharynx like a ball-valve. The pedicle was ligated and the tumour excised immediately. The baby had no further difficulties. The tumour (see figure)

Section through lingual polyp ($\times 4.3$).

measured $18 \times 13 \times 13$ mm and consisted of smooth muscle bundles and fibrous tissue containing nerve bundles, blood vessels, lymphatics, adipose tissue, and glands and ducts similar to mucus-producing salivary glands. The nodule was covered with keratinising stratified squamous epithelium containing pilosebaceous follicles and one definite hair. There was no evidence of neoplasia.

The features of this tumour were similar to those described in hairy polyps arising on the

pharyngeal wall or uvula, and an anterior lingual polyp of this kind was reported by Miller and Owens.¹ It should probably be regarded as a congenital malformation, as was the nasopharyngeal nodule described by Kesson,² rather than as a teratoma, which is a true tumour or neoplasm composed of multiple tissues of kinds foreign to the part in which it arises. The midline of the posterior part of the tongue is certainly a most unusual site for such a polyp and probably gave rise to the polyhydramnios by interfering with fetal swallowing. It is worth noting that solid tumours in the mouth occasionally cause problems of resuscitation in the newborn infant and, if pedunculated, may readily be removed in the delivery room.

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¹ Miller, A P, and Owens, J B, *Cancer*, 1966, **19**, 1583.
² Kesson, C W, *Archives of Disease in Childhood*, 1954, **29**, 254.

Lumbar disc surgery

SIR,—Mr Arthur Naylor (26 February, p 567) rightly states that simultaneous spinal fusion with disc excision is not commonly practised in Britain and that the majority of patients undergoing excision of a prolapsed disc do not require the extra procedure. Nevertheless, the necessity of wearing a lumbar support for backache following laminectomy should be considered a relative failure of surgery.

Postlaminectomy backache can be anticipated in the presence of certain features: (1) the presence of backache as well as sciatica at the time of intervention; (2) a previous long history of backache, especially when made worse by standing or sitting in one position for some time; (3) the presence of minor congenital abnormalities in the spine—for example, spina bifida occulta, unilateral sacralisation, asymmetrical interfacetal joints; (4) hypermobility at the affected level observed at operation.

Patients at risk should be placed in an operating position suitable for the combined procedure, and the Toronto frame is an excellent support for this. A convenient and effective method for fusion is to insert screws through the facet joints into the pedicles as described by Boucher¹ and to perform a posterolateral and intertransverse fusion using corticocancellous grafts from the posterior ilium. The combined procedure can be done through a median incision; no graft overlies

the laminectomy site and a healthy fusion mass develops (see figure). Although the additional surgery doubles the time of the operation the hospital stay is not prolonged and the patient immediately senses that the back is "solid." It has been shown by Jackson² that the incidence of postlaminectomy backache is not influenced by the type of laminectomy performed and a critical selection of patients for combined disc excision and fusion is likely to reduce the incidence of postlaminectomy backache without indiscriminate spinal surgery being performed.

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¹ Boucher, M M, *Journal of Bone and Joint Surgery*, 1959, **41B**, 248.

² Jackson, R K, *Journal of Bone and Joint Surgery*, 1971, **53B**, 609.

Plight of young consultants

SIR,—Your leading article "Incomes policy mark 3?" (19 February, p 470) questions, quite rightly, the value of an "independent" Review Body. We have seen in the past how succeeding governments flouted the recommendations of several Review Bodies on Doctors' and Dentists' Remuneration, to which the profession always seems to agree. Even when a government does implement a particular recommendation, at a later date it may choose to annul this for political albeit economic expediency—of course, I am talking about the lengthening of the shortened (and short-lived for some) consultant incremental scale. I am surprised that in your article this unjust action on the part of the Government was not mentioned since the profession's representatives—that is, the BMA—are already discussing the phase 3 incomes policy with the Government.

The affected consultants are still waiting for the plans for action for restoring them to their correct position on the incremental scale as stipulated in the letter from the chairman of the Central Committee for Hospital Medical Services (11 September, p 657). It is now high time that the BMA produced some action. The least it can do in the meantime is to take a stand similar to that of the Hospital Consultants and Specialists Association in not supporting a pay code that does not redress this injustice. If the BMA fails to protect the rights of its individual members, not to speak of a significant minority as in this instance, then I am afraid the BMA will lose its credibility as the representative body of the profession.

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SIR,—Groups of consultants in 17 hospitals have written to the chairman of the Review Body on Doctors' and Dentists' Remuneration pointing out that young consultants in particular have borne a heavy burden during successive phases of the Government's counterinflation policies. These consultants have also told the Review Body that they no longer have confidence in the BMA as a negotiating body because, they claim, their views are not adequately represented by the Association. I have written to each group on behalf of the BMA and because this is a matter of concern to hospital doctors generally I am

sure that my comments will be of interest to a wider audience.

I told them that their views are the same as those which the BMA has unequivocally expressed to the Review Body about the plight of consultants in general and younger consultants in particular. But the main reason for the anomalies is the Government's incomes policy. All the independent Review Bodies have been asked to have regard to this policy and it follows that representations to the Review Body alone are not enough.

Within a few days of my election as chairman of Council I met the Prime Minister and (among other things) impressed upon him the urgent need for some alleviation of the anomalies which had been imposed on consultants by successive stages of incomes policy. As a result of this meeting the incremental payments were resumed during phase 2 of the pay policy. On 9 February I saw the Secretary of State for Social Services about the next stage of incomes policy and I was strongly supported at that meeting by the chairman of the Central Committee for Hospital Medical Services, Mr A H Grabham.

The general case we put could be summarised as follows. Any further incomes policy should permit: (1) a generous percentage increase in gross remuneration; (2) no upper limit in cash terms as in the present policy; and (3) that there should be a substantial raising of the level of taxable income at which the higher tax bands come into operation.

We expressed the fear that remuneration that adequately rewards the skill of members of the profession is unlikely to be achieved in one step within the confines of an incomes policy but we strongly urged that any further stage of such a policy must not only ensure that there is no further deterioration in professional living standards but should go at least a substantial way towards correcting that which has taken place so far. We also insistently urged that the anomalies which have arisen as a result of incomes policy so far be corrected forthwith.

In support of our statement I handed the Secretary of State written details of the anomalies which had occurred in the profession. On 1 March I had a further meeting with the Secretary of State on the same subject and I was again supported very strongly by the chairman of the CCHMS and my other chairmen. We have not, of course, overlooked the need to influence other bodies which are party to consultations on incomes policy, and we have had a meeting with the General Secretary of the Trades Union Congress for the purpose of making the same points.

Finally, notwithstanding the constraints placed upon the Review Body by incomes policy, I want all consultants to know that we have represented these points in our written document of evidence and argued them most forcefully before the Review Body itself on 2 February. Indeed, during the many years when I presented the general practitioners' case before the Review Body, when I was chairman of the General Medical Services Committee, I cannot remember a case which was better presented than that argued by the CCHMS negotiators—Mr A H Grabham and Mr D E Bolt—on the need to achieve an immediate alleviation of the unfair anomalies which have been imposed on consultants as a result of successive stages of the Government's incomes policy.

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Fusion at three months.