

incubator. He had no direct contact with his mother after birth.

At six weeks he was noted to have occasional cough. The chest was clinically clear, W.B.C. 23,000/min³ with 40% neutrophils and 56% lymphocytes. Mantoux test was negative. Chest x-ray showed inflammatory changes at the right base. He was therefore started on a mixture of ampicillin and cloxacillin. His general condition was static and his temperature fluctuating.

A week later he developed a firm, smooth swelling in the right anterior triangle of the neck, followed a few days later by a similar swelling on the left. Shortly afterwards he developed an ear discharge. At this point the spleen was just palpable and liver 1½ (3.75 cm) below the costal margin. His general condition was deteriorating. A swab from the ear discharge grew *Escherichia coli*, but Ziehl-Neelsen staining showed acid-fast bacilli resembling *Mycobacterium tuberculosis*. Culture and guinea-pig inoculation of this specimen later was positive. The cerebrospinal fluid contained 36 W.B.C. and 20 R.B.C./mm³, protein 119 mg/100 ml, sugar 42 mg/100 ml, and no organisms (including Z.N. film). He was started on isoniazid, streptomycin, and PAS. Repeat chest x-ray showed consolidation of the right upper lobe. At this time he was breathless on feeding. He started to improve and to gain weight at three months. Repeat Mantoux test was negative until the 14th week of life, when it became weakly positive. Culture and guinea-pig inoculation of gastric washing, cerebrospinal fluid, and urine were negative.

The tuberculous nature of the illness in the infant was proved by examination of the ear discharge. This, to our knowledge, has not previously been reported. At the time of writing the infant, now aged 3 years, is doing well.

The mother, as is often the case, died of tuberculous meningitis 10 weeks after delivery in spite of antituberculosis chemotherapy. At postmortem evidence of tuberculosis was found in the meninges, subcarinal and porta hepatitis lymph nodes, peritoneum, liver, uterus, and one fallopian tube. Histologically these organs showed typical tuberculous granulomata. No acid-fast bacilli, however, were found in any of the tissues.—We are, etc.,

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¹ Beitzke, H., Cited by Harris, E. A. *Journal of Pediatrics*, 1948, 32, 311.

Problems with Ketamine Anaesthesia

SIR,—Austin and Bevan¹ and more recently Lt.-Col. C. K. Davies (21 October, p. 178) have drawn attention to two of the problems associated with the use of ketamine: (1) the need for atropine premedication to prevent excessive salivation; and (2) the inadvisability of using ketamine where the mouth cannot be kept clear of blood or other fluid.

I have had a similar experience to that of Lt.-Col. Davies. A child of 1 year weighing 10 kg was operated on for skin grafting of two fingers. No premedication was given; the child had been starved for eight hours. Anaesthesia was induced with a single intramuscular dose of 50 mg of ketamine (5 mg/kg). During the grafting the child salivated profusely and respiratory arrest occurred 13 minutes after induction. This happened in an anaesthetic room and all was well after intubation. For a subsequent grafting on the same child atropine premedication (0.6 mg)

was given intramuscularly 70 minutes before induction with intravenous ketamine 20 mg (2 mg/kg). This time ketamine was uneventfully used as the sole agent in a total dosage of 100 mg.

Resuscitative facilities must be available when ketamine is used alone but ketamine is invaluable for changing burns dressings on the ward and putting burned patients into the bath, as was also found by Boyd *et al.*² This may safely be done with atropine premedication and in the presence of basic resuscitative equipment.

A recent article by Baraka *et al.*³ prompted the use of ketamine as an induction agent for elective caesarian section. Ketamine produces very little respiratory depression. An acceptable technique was found to be atropine (0.6 mg) premedication—pre-oxygenation—ketamine (1 mg/kg) intravenously—pancuronium (10 mg)—intubation and ventilation with oxygen—nitrous oxide. One full-term normal infant delivered by elective section by this technique gasped immediately and had an immediate Apgar score of 8. However, for the next 3½ minutes frothy fluid welled up from the infant's trachea. The heart rate fell to 60/minute. The fluid was sucked out and the child intubated and ventilated with oxygen, and is well. Presumably this fluid was a mixture of air and liquor inhaled during delivery. It may be that the use of ketamine, with its lack of respiratory depression and its circulatory stimulation, caused or, more correctly, allowed this inspiration due to the stimulus of delivery.—I am, etc.,

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- ¹ Austin, T. R., and Bevan, D. R., *British Medical Journal*, 1971, 2, 709.
- ² Boyd, N. A., Barry, N. A., and Davies, A. K., *Annals of the Royal College of Surgeons of England*, 1971, 49, 291.
- ³ Baraka, A., O'Brien, M., Aslam, E., and Saade, R., *British Journal of Anaesthesia*, 1971, 43, 609.

Drugs in Infertility

SIR,—Some of the comments of Dr. G. I. M. Swyer (18 November, p. 425) are not consistent with our experience of the use of mesterolone, both as regards its clinical role as an androgen and its effects on endogenous testosterone levels both in plasma and urine and on urinary luteinizing hormone (L.H.) and follicle-stimulating hormone (F.S.H.) excretion.

Two groups of hypogonadal patients were treated with 200 mg of mesterolone per day. The first group of four patients had not been on androgen therapy previously. All had a good clinical response to the dose used, with a noticeable increase in shaving frequency from once to three times per week. Liver function tests were normal throughout, and the longest period of treatment has been two years. There was no change in testosterone levels in some patients; in others, however, there was approximately a 30% drop during treatment, with no apparent change in urinary LH and FSH. These findings have been confirmed in six normal subjects given mesterolone 200 mg daily over three weeks.

The second group of patients have all been on testosterone propionate implants for various lengths of time. Of eight patients, five responded satisfactory on conversion to

oral mesterolone and maintained normal libido and hair growth on long-term treatment. In three cases, however, this conversion was not clinically adequate; the patients felt increasingly tired and apathetic, with a reduction in the frequency of shaving.

In conclusion, mesterolone appeared to act as an active androgen in nine of 12 hypogonadal patients studied and has the advantages of oral administration with no long-term effects on liver function, no apparent reduction in gonadotrophin levels, and a small effect on endogenous testosterone production. We hope to present more detailed data on these points at a future date.—We are, etc.,

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Nutritional Value of School Meals

SIR,—In their survey of school meals, Messrs. D. P. Richardson and M. Lawson (23 December, p. 697) have established that the possible calorie and protein intake is adequate and compares favourably with food brought from home or bought elsewhere. But they have not taken into account what every teacher knows—that there is a considerable wastage of unpopular items. In particular green vegetables and protein sources other than meat tend to be left, and puddings are not favoured by teenage girls. Therefore unless the amount of school meals which is actually consumed is calculated, no recommendations can be based on this study.—We are, etc.,

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Referring Patients for Electrolysis

SIR,—I am grateful for the opportunity provided by my friend Professor P. J. Hare (16 December, p. 672) to highlight some of the problems relating to the removal of superfluous hair, particularly from the face. I regret that my original letter (2 December, p. 551), which included verbatim my committee's draft to the B.M.A. Central Ethical Committee and which explained the questions he raises and our disagreement with some of the statements made in *So Now You Know about Your Skin*, had to be drastically shortened, at the Editor's request. We found nothing offensive in this booklet, and are grateful to Professor Hare, for example, for further condemnation of the electrolytic pencils for home use which have regrettably been flooding a desperate market.

But the patients we see in our hospital clinics are the hypersensitive, paranoid, or even suicidal women who have tried all the depilatory creams, epilating waxes, abrasive pads, and plucking tweezers, and in whom reassurance very carefully given that they are not becoming male is promptly and totally destroyed if one should then—as so often happens—mention the word moustache, beard, or razor, which last by no pretty-name will smell the sweeter, even if used by all the film stars.