relationships. It is to be hoped that such a study will be conducted in association with one of the pilot screening programmes under way in a number of countries so that assessment of value and harm can be based on fact rather than on opinion.

While it may be a tragedy that some families discover that an older child has CF only after the birth of a second affected child, this must be seen in perspective. As stated in my commentary, only 7% of patients are so diagnosed and 1 in 3 families who find they have 2 CF children in this way, elect to have further children, knowing fully the risks. Emotional concern for an individual family should not bias our ability to look objectively at the total problem.

Drs Dodge and Ryley state that the Gibson-Cooke method of standardised sweat test was not available before 1959. However, Anderson and Freeman introduced collection of sweat for analysis of sodium and chloride, using a method not dissimilar to that subsequently described by Gibson and Cooke, at the Royal Children’s Hospital in Melbourne in February 1956. Therefore, our patients have been diagnosed in this way for the last 27 years.

Drs Dodge and Ryley give some interesting figures on the prevalence of cystic fibrosis in South Glamorgan and suggest this is considerably higher than that of recognised cases in Victoria. Regrettably they do not give the ages of the patients to whom they refer. If the 60 patients aged over 18 years resident in Victoria and attending an adult clinic are included, the prevalence in the two communities is not notably different. However, prevalence is not the appropriate method of measuring the frequency of a congenital disorder that is life limiting. The proper measurement is incidence related to live births and in Victoria since 1955 this has been 1:2556. It did not change appreciably between 1955 and 1978, suggesting that there was not a marked increase in identification of milder cases. Data reported elsewhere indicate that it is highly unlikely that a number of cases are being missed. Further, a study of newborn screening, using serum IRT, is currently under way in New South Wales, the adjacent state to Victoria in Australia. Incidence based on the first 75000 tests, and allowing for one false negative, was 1:2083 live births (95% confidence limits 1:1562 to 1:3125). Thus the incidence is not significantly different from that in the much longer study in Victoria. There is no support for the suggestion by Ryley and Dodge that 30% of patients in Victoria are being cared for or dying undiagnosed without reference to the regional centre.

The value and possible harm from newborn screening for CF remain unproven. Until well supported data are available screening programmes should continue to be seen as research endeavours and it would seem unwise to introduce them nationally.

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Neonatal systemic candidiasis

Sir,

McDougall et al reported the failure of intravenous miconazole in two preterm infants with systemic candidiasis, who subsequently responded to the combined therapy of amphotericin B and flucytocine. These two antifungal agents were not used at first because of reports of nephrotoxicity, hypokalaemia, hypotension, and thrombocytopenia secondary to amphotericin B, and thrombocytopenia, leucopenia and rashes and the development of resistance to flucytocine.

During the last 3 years 7 infants have developed systemic fungal infection in this unit and all have survived. In all cases except 1, the infecting organism was Candida albicans, the exception being Torulopsis glabrata. At the time of infection all infants were receiving parenteral nutrition; 6 were preterm, gestational age 27·4±1·8 weeks (mean±SD), birthweight 1·01±0·20 kg, (mean±SD), while the seventh was a term infant with necrotising enterocolitis. A combination of intravenous amphotericin B (0·25 mg/kg a day increasing to 1·0 mg/kg a day over 4 days) and flucytocine 100–150 mg/kg a day was given for 3 weeks followed by 2 weeks of oral flucytocine. Five infants were treated with combined therapy while 2 infants received flucytocine alone. Blood cultures were sterile after 48 hours except in 1 baby in which a C. albicans resistant to flucytocine was isolated before the addition of amphotericin B. In view of the reported side effects of these drugs all infants had twice weekly blood cultures, full blood count with differential white cell and platelet counts, urea and electrolytes, serum creatinine, and liver function tests. The only abnormalities were a marked increase in alkaline phosphatase and gamma glutamyltransferase in 5 infants. These changes were not appreciably different to those seen in 8 other preterm infants, gestational age 29·1±1·9 weeks (mean±SD), birthweight 0·93±0·37 kg (mean±SD) on parenteral nutrition without fungal septicaemia.

We would like to suggest that combined amphotericin B and flucytocine therapy is a treatment of choice in neonatal systemic fungal infection and that the above regimen has not led to the side effects reported by others.

References
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Miconazole in systemic candidiasis

Sir,

I wish to report another therapeutic failure of miconazole in a neonate with systemic candidiasis.\(^1\)\(^2\) The male infant weighed 1300 g at 29 weeks gestation and required assisted ventilation from day 3 for recurrent apnoea. Parenteral nutrition was given for 3 days through an umbilical arterial catheter and thereafter via silastic venous lines. At echocardiography for patent ductus arteriosus the tip of a silastic line was found to lie in the right ventricle. Candida albicans was cultured from its tip and also from blood and urine. Despite a 14 day course of miconazole (20 mg/kg a day from day 4, serum concentration 1 mg/l), C. albicans persisted in blood and urine cultures, apparently still sensitive to miconazole. Treatment was changed to amphotericin B (0.25 mg/kg a day—1 mg/kg a day) and flucytosine (200 mg/kg a day) and after 8 days therapy all cultures were negative.

The infant died despite initial clinical improvement and the necropsy showed candida vegetations blocking the pulmonary artery. Careful catheter management and positioning\(^4\) is essential and the value of miconazole in treating systemic candidiasis in this age group must be questioned.

References


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Book reviews


Hungary like South Africa lies at a cultural interface, that between the German academic tradition and the Slav and Magyar cultures, with their capacity for what is now called lateral thinking; and like South Africa it produces medical scientists of high quality. Dr Hirschberg, an otolaryngologist, and Dr Szende, a research worker in linguistics, have produced in Pathological Cry Stridor and Cough in Infants, what must be the definitive work on what Tennison called the infants only language; and it is a book which in your reviewer’s opinion every paediatric department ought to possess, not only for reference but because it has so much to teach us about the interpretation of one of the most important physical signs that we encounter in practice. Following a historical introduction and a not too long or technical account of the methods used, it consists largely of careful acoustic analysis of the abnormal cry stridor and cough heard in infants with diseases that present in this way, each record set in apposition to the clinical findings in the infant concerned. Also included are two gramophone records, on which over 100 examples of characteristic vocalisation are recorded and an assessment of the diagnostic value of acoustic analysis in relation to conventional examination, over 200 well chosen references, and a satisfactory index; the whole comprising some 150 pages.

The authors or their translator write in gratifyingly clear and expressive English, and the book makes quite easy reading though some anatomical illustrations or diagrams would have been helpful for the less clued up reader unfamiliar with laryngoscopic appearances or even the basic anatomy and pathology of the middle respiratory tract. Your reviewer found little to disagree with or cavil at in the text though he did have to abandon some preconceived and obviously incorrect ideas—such as that papillomata of the larynx, now known to be due to infection in the birth canal, do not present clinically until late infancy. The two records are perhaps less useful than one might have hoped. Apart from the irritation caused by the (obviously English) commentator not being at home with medical terms and the transpositions of sides 3 and 4, the reproduction is not accurate enough to do more than remind the experienced listener of what certain conditions sound like and the records are unlikely to prove effective substitutes for experience in the tyro. Perhaps what is needed is an audiovisual programme including both sonograms and recordings in apposition. But these minor criticisms do not detract from the basic value of the book, which will be particularly helpful to teachers of undergraduate students, coming to terms with clinical paediatrics, and to practising ENT surgeons and
Neonatal systemic candidiasis.

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