

## Metronidazole in treatment of children with amoebic liver abscess

We have shown that metronidazole combined with dehydroemetine is an effective treatment of children with amoebic liver abscess and that the former drug has advantages over chloroquine (Scragg and Powell, 1970). In adults, metronidazole in the absence of other drug therapy is extremely effective in curing amoebic liver abscess and remains the best of the nitroimidazole derivatives that we have investigated (Powell, 1972; Powell and Elsdon-Dew, 1972). However, in the very young we have been reluctant to abandon parenteral emetine preparations owing to the severity of the condition in this age group. Nevertheless, the highly satisfactory results that we have obtained with metronidazole alone in hundreds of adults prompted us to undertake the following trial in children.

### Material and methods

Studies were made on 25 African children, their ages ranging from 4 months to 2 years. The diagnosis of amoebic liver abscess was proved by the aspiration of characteristic pus from the liver in all instances; in 13 of the 25 aspirates trophozoites of *Entamoeba histolytica* were identified. In all patients the amoebic gel-diffusion precipitin test was positive.

All the children received metronidazole 50 mg/kg per day orally for 5 days. In 19 patients repeated aspirations of the liver were required and in 4 surgical drainage of the abscess was eventually necessary.

### Results

In 18 patients response to treatment was uneventful and cure was obtained. 2 other children remained ill and febrile after completion of the 5-day course of metronidazole and subsequently responded to dehydroemetine. In another patient a large right lobe abscess ruptured into the right pleural cavity on the fourth day. She was given dehydroemetine, but died 8 days later. At necropsy, in addition to the right lobe abscess and amoebic empyema, numerous small abscesses and a large left lobe abscess were found. In the remaining 4 children laparotomy and surgical drainage were performed owing to the presence of

multiple abscesses which were not accessible by needle aspiration. All recovered but were given dehydroemetine during the postoperative period. No relapses were observed during a 3-month follow-up.

### Discussion

The results of this trial are similar to those obtained in our previous study of metronidazole combined with dehydroemetine in which 11 of 15 children were cured, 2 more required surgical drainage, and 2 died (Scragg and Powell, 1970). We have indicated that age is a most important factor in prognosis and that, regardless of the nature of the therapy, mortality is higher in infants and very young children (Scragg and Powell, 1968). In the present study the average age of our patients was significantly lower than in our previous trials, hence the efficacy of metronidazole alone was put to a rigorous test. Moreover, whereas in the earlier trial a 10-day course of the drug was given, in this study therapy was limited to 5 days. While this was necessary as part of a standardized trial, there is no contraindication to giving longer courses of metronidazole, and it is possible that a 10-day course would have proved adequate in the 2 cases in which full response was only obtained after resort to dehydroemetine.

It has been shown that metronidazole alone is equal to previously favoured combinations of amoebicides in the treatment of children with acute amoebic dysentery (Rubidge, Scragg, and Powell, 1970) and we have recently found the benzoyl ester suspension of this drug to be as effective (Powell, Rubidge, and Elsdon-Dew, 1973). We now believe that metronidazole in the absence of any other drug therapy is effective in curing the majority of children with amoebic liver abscess. Nevertheless, when response to treatment is unsatisfactory and the presence of additional inaccessible abscesses is suspected, surgical drainage should be done. This of itself may be adequate, but we suggest adding dehydroemetine during the postoperative period.

### Summary

Metronidazole, in the absence of other drug therapy, cured 18 of 25 children with amoebic liver abscess. 4 of the remaining cases required surgical drainage, in 2 others cure was obtained only after

the addition of dehydroemetine, and the remaining patient died. These results equal those from previous trials of combined therapy. Surgical drainage plays a greater role in management in children than in adults, because of the frequency of multiple abscesses that are inaccessible to needle aspiration. In such instances dehydroemetine is also given during the postoperative period.

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†We report with regret the death of Professor S. J. Powell on 2 June 1973.

## Laryngotracheo-oesophageal cleft

Congenital abnormalities of the larynx are not uncommon. Holinger and Brown (1967) collected a series of 866 cases in Chicago that included only 2 cases of laryngotracheo-oesophageal cleft.

We describe a case of this malformation which has received little attention in the British literature.

#### Case report

A primigravida developed hydramnios during the 33rd week of pregnancy. At 37 weeks in another hospital she

was delivered spontaneously of a female infant weighing 1840 g. The Apgar score was 8 at one minute. Oxygen was administered by face mask until regular respirations were established.

The baby regurgitated her first three feeds and at the age of 8 hours had a respiratory rate of 72, with marked sternal indrawing. Dextrostix at this time recorded less than 25 mg/100 ml and intravenous dextrose was given. She was transferred to Oxford. The clinical findings were confirmed and no malformations were detected.

The initial diagnosis of aspiration pneumonia due to regurgitation of feeds was confirmed radiologically. Blood gas analysis at this time showed a mild metabolic acidosis that was corrected with intravenous bicarbonate. Cultures were taken and antibiotics started.

Tube feeding was resumed at age 36 hours, but the baby became cyanosed shortly afterwards. Stridor and coarse crepitations throughout the lungs were heard.

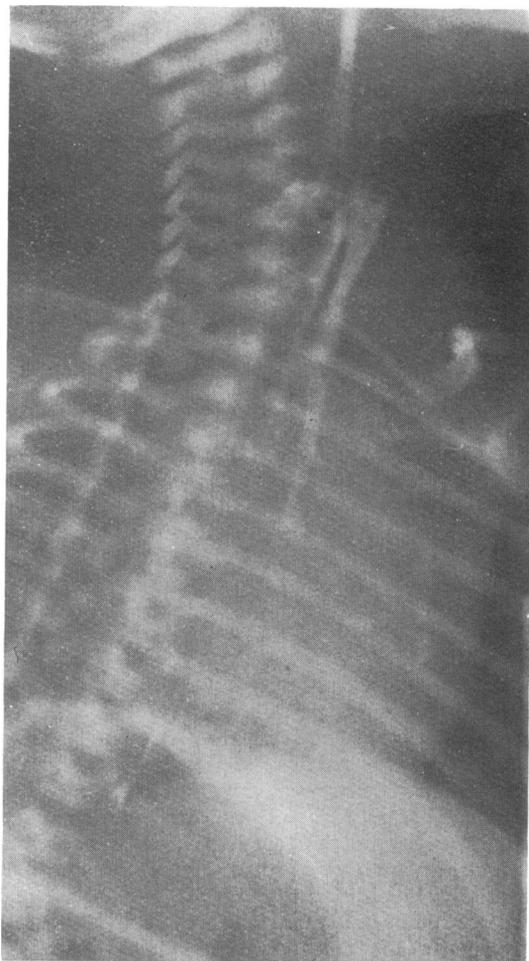


FIG. 1.—Oblique x-ray showing barium flowing from oesophagus anteriorly into the trachea.