myocardial lesions.⁷ No nodules in the central nervous system have been described. Cases without visceral nodules (the multiple group) demonstrate a wide range of involvement from single bony or subcutaneous nodules to widespread involvement of skin, subcutaneous tissue, muscle, and bone. As ultimate regression is the rule survival is assured.

The difficulty in making a pathological diagnosis lies in the variability of appearances from field to field on microscopical examination.⁷ Multiple foci of fibroblastic tissue occur; these are locally invasive and not encapsulated. Mitotic figures are sometimes present and this gives rise to the most common misdiagnosis of fibrosarcoma. However the cells are well differentiated. In keeping with the tendency to spontaneous regression, areas of degenerative change—such as hyalinisation, calcification, and necrosis—are always present. Vascular channels are prominent, but there may be a variety of tissue elements, raising the possibility of hamartomatous rather than neoplastic formation. The bony lesions may cause diagnostic confusion, especially if they are the presenting feature. They are lytic, well margined, show varying degrees of sclerosis,¹⁶ and may result in pathological fractures. The nodules are thought to represent multiple foci and not metastases from a single source.⁷

Although the aetiology of congenital generalised fibromatosis is unknown, the condition may be an abnormal response to oestrogen stimulation. The lesions develop *in utero* and ultimately regress when removed from the uterine environment. Early cancer researchers found that guinea-pigs developed multiple fibrous tumours if exposed to prolonged oestrogen stimulation and that when treatment was stopped the tumours regressed. Against this is the fact that the pigmented 'haemangiomas' or macules noted in this case and that of others³⁻⁸ may

represent the remains of nodules that have actually regressed *in utero*.

Although the cause is unknown the diagnosis may be confidently made on clinical and pathological features. Prognosis rests on a careful search for visceral involvement. Survival with visceral involvement is possible but unlikely. As fibrous tumours respond poorly to chemotherapy, the value of this approach is doubtful. In the absence of visceral involvement the outlook is excellent and mutilating and harmful treatment must be avoided.

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Correspondence to Dr N Modi, Department of Paediatrics, Neonatal Unit, University College Hospital, Gower Street, London WC1E 6AU.

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Infant mortality in developing countries

A ASHWORTH AND J C WATERLOW

Department of Human Nutrition, London School of Hygiene and Tropical Medicine

SUMMARY In developing countries, mortality among the under-fives is greatest during infancy. Limited data indicate that about 80% of these infant deaths occur in the first 6 months of life and two-thirds of the postneonatal deaths occur before 6 months. These findings strongly suggest that more attention should be focused on the causes of death in the very young infant.

In the last few years it has become increasingly clear how wrong it is to group together infants and preschool children as if they formed a homogeneous 'vulnerable' group from 0-5 years. This is particularly true with regard to malnutrition. Longitudinal studies in the Punjab have shown that for a given nutritional status, the younger the child the greater is the risk of death.¹ The pattern of malnutrition also changes during the first 5 years of life.² Wasting (that

Fig. 1 Distribution of infant deaths by age in 22 areas of Latin America and the Caribbean.

Fig. 2 Distribution of infant deaths by age in 8 American cities (circa 1920) when the mortality rate was 117 per 1000 live births.

is, low weight-for-height) reaches a peak at 1–2 years and then declines. On the other hand, the prevalence of stunting (low height-for-age) gradually increases, at least in many communities, until about half the children may be classified as stunted. In longitudinal studies in Bangladesh, mortality was highest when severe wasting coexisted with severe stunting.³ Such findings strongly suggest that we should focus attention on the early part of the 0–5 age range.

There is evidence that in many developing countries faltering in growth begins as early as 2–3 months of age.⁴ This has led us to examine the pattern of mortality in the first year of life. The most comprehensive study of infant mortality in developing countries is the inter-American investigation of mortality in childhood.⁵ The data relate to 26 508 infant deaths from 22 areas in 8 Latin American and Caribbean countries. Fig. 1 shows the distribution of infant deaths for the 22 areas combined. Neonatal deaths accounted for 45% of the total infant mortality. In the postneonatal period twice as many deaths occurred between 1 and 5 months as between 6 and 11 months. A similar pattern has been found in Ghana⁶ and Bangladesh.⁷

Since we have been unable to find any other national data from developing countries, we have examined Woodbury's infant mortality data for 8 American cities in the early part of this century.⁸ At that time the infant mortality rate was 117 per 1000 live births, which is comparable with the rate prevailing in many developing countries today. His data relate to 2680 infant deaths and their age distribution is shown in Fig. 2. Neonatal deaths accounted for 38% of the total infant mortality rate and the majority of postneonatal deaths occurred between 1 and 5 months of age.

Figs 1 and 2 are virtually identical and show a steady decline in mortality throughout the first year of life. There is certainly no evidence of any increased vulnerability during the second half of infancy as is frequently stated. This high mortality during the early postneonatal period is perhaps surprising as one would expect that infants would have some protection during the first 6 months when they are being mainly breast fed. In Woodbury's study, for example, of the 22 422 infants who were followed prospectively from birth, 52% were exclusively breast fed at age 6 months, and a further 20% were partially breast fed.

Of what are the infants dying? The only source we know which gives a month-by-month breakdown of causes of death is the inter-American investigation.⁵ In that study the main cause of postneonatal death was diarrhoeal disease. Fig. 1 shows that the percentage of deaths attributed to diarrhoea is similar throughout the postneonatal period and there is no trend towards any increased mortality from this cause in the second half of infancy. (This does not necessarily conflict with morbidity data which show that the peak prevalence of diarrhoea is roughly at 9–12 months of age. It simply illustrates the finding that younger infants succumb more easily.)

The investigators found that in the postneonatal period mortality from diarrhoeal disease was highly correlated with nutritional deficiency ($r=0.91$). Furthermore, many of the postneonatal deaths occurred in infants who were of low birthweight. For example, in 16 project areas where birthweights were known, 28% of deaths in the 1–5 month age group were of infants with birthweights ≤ 2500 g. Low birthweight infants are highly vulnerable to infection. Those who survive the neonatal period often develop

a superimposed nutritional deficiency which further impairs their resistance, especially to diarrhoeal disease. This suggests that one important cause of postneonatal mortality in Latin America is low birthweight, possibly as a result of poor maternal health and nutritional status. In other parts of the world—for example in Africa and the Indian sub-continent—the prevalence of low birthweight is considerably higher than in Latin America.

The purpose of this report is to stress the need for more information concerning the age distribution of infant deaths. The available data indicate that about 80% of infant deaths in developing countries are occurring in the first 6 months of life. If this is so, much greater attention must be given to the very young infant if the problem of high infant mortality is to be tackled effectively.

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Correspondence to Dr Ann Ashworth, Department of Human Nutrition, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT.

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Neonatal systemic candidiasis: a failure to respond to intravenous miconazole in two neonates

P N MCDUGALL, P J FLEMING, D C E SPELLER, P DAISH, AND B D SPEIDEL

Department of Child Health and Department of Microbiology, Bristol Maternity Hospital

SUMMARY Two extremely preterm infants undergoing intensive care who developed systemic candidiasis are reported. Each was treated initially with intravenous miconazole. One child initially responded, but relapsed after the miconazole was stopped. The second child showed evidence of progression of the disease during treatment. Both infants responded to a combined course of amphotericin B and 5-fluorocytosine. We consider that miconazole is not the drug of first choice in the treatment of neonatal systemic candidiasis.

Systemic candidiasis is a well-known complication in sick preterm infants needing intensive care. The prognosis for such infants, particularly those with *Candida meningitis*, is poor and there is a high incidence of neurological sequelae in survivors.^{1,2} We report two infants with systemic candidiasis who failed to respond to treatment with intravenous miconazole.

Case 1

A boy, birthweight 1000 g, was born by spontaneous vaginal delivery at 26 weeks' gestation. His neonatal course was complicated by respiratory distress syndrome, severe apnoea, a pulmonary haemorrhage, sclerema, and patent ductus arteriosus. He required respiratory support via an endotracheal tube for 68 days and received intravenous nutrition for 70 days. He was given 4 courses of broad spectrum antibiotics (penicillin and gentamicin) for suspected sepsis.

On day 36 his condition deteriorated. Blood and urine cultures showed a heavy growth of *Candida albicans*. Cerebrospinal fluid (CSF) was normal with no growth of organisms on culture. Intravenous miconazole, 15 mg/kg a day in 2 divided doses, was started on day 40. The treatment was stopped on day 50 when his condition had improved and blood, urine, and CSF cultures were negative.

On day 61 his condition again deteriorated with