Paediatric Research Society

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Nasal Obstruction in the Newborn

Peter M. Dunn
University of Bristol

The relatively narrow nasal passages of the newborn infant create a high resistance to airflow and are readily occluded. Most newborn infants are 'obligatory' nose-breathers for the first few weeks of life, except when crying. Thus the newborn infant is peculiarly vulnerable to nasal obstruction in the newborn period.

Attention was drawn to an entity termed 'congenital postural deformity of the nose': 6 infants, each having a nose bent acutely to one side, were encountered among approximately 7000 hospital deliveries; 5 of the mothers were primiparae and all 6 infants presented by the vertex. In 3 infants there was a history of deep engagement of the head within the mother's pelvis for 4, 6, and 9 weeks before delivery. In the remaining 3 cases there was a history of premature rupture of the membranes 1, 6, and 8 weeks before birth. None of the infants had malformations outside the skeletal system; 1 had bilateral dislocation of hips, 1 had scoliosis, and 1 had flexion deformities of hips and knees with Talipes. It was suggested that all these deformities were caused by intrauterine pressure. 2 of the 6 infants suffered from severe respiratory distress. One had completely obstructed respiration which could be relieved by opening the mouth or by straightening the nose. The passage of a section of 'endotracheal' tube into one nostril served both to correct the deformity and to maintain the airway in this case.

Aspects of Hypoglycaemia in Kwashiorkor

Brian A. Wharton
University of Bristol

Hypoglycaemia (blood glucose less than 40 mg./100 ml.) with symptoms was a rare complication of kwashiorkor in Uganda, but when it did occur death was inevitable. It was present in one-sixth of the children who died during this time. Hypoglycaemia without symptoms, however, occurred in one-third of the children, but if the blood glucose remained above 20 mg./100 ml. it had no unduly grave significance.

The biochemical origins of the hypoglycaemia,

though uncertain, were probably hepatic. There were, however, important clinical associations with hypothermia and severe infection.

Relation Between Insulin Levels and Glucose Disappearance in Normal and Diabetic Patients

Leo Stimmler
London

If porcine insulin is injected intravenously into normal subjects the insulin disappears exponentially from the plasma at a rate of 21% per minute, to reach an equilibrium level close to the initial fasting level. The glucose levels also fall rapidly and exponentially to reach a nadir at between 20 and 25 minutes, followed by a rise in glucose. The time of the nadir occurs when over 99% of the insulin has disappeared from the plasma. In diabetic subjects the fall in insulin is slower. This results in the glucose levels falling more slowly, the minimum glucose level occurring significantly later. For the same insulin dosage there is the same proportional fall in glucose in the normal and diabetic subject.

The Addis Count— Is it Worth While?

S. R. Meadow
Institute of Child Health, Birmingham

The Addis count is an estimation of the rate of excretion of cells and casts in the urine. Despite modification since its introduction 40 years ago, it remains an unsatisfactory test. Errors arise from the problems of collecting complete timed urine specimens from children, and uncontaminated specimens from girls. Cell disintegration may occur in the urine and during centrifuging, and accurate identification of the formed elements is difficult.

A method was used which dispensed with the centrifuge, and allowed easier cell identification. Urine was passed through a Millipore filter to which the cells and casts stuck. They were fixed, stained, and examined as a permanent dry preparation. This method was compared with the traditional Addis method in normal