Priorities in Development of Neonatal Surgery in India

We had prospectively audited outcome of two hundred and sixty one surgical neonates admitted in our unit over a period of one year. One hundred and forty two neonates (54%) presented within the first 48 hours. Babies with surface defects, which were obvious viz., Meningomyelocele invariably presented very early and other babies presented late. Seventy five per cent babies were males and twenty five per cent were females. Ninety per cent of the babies were brought from outside Chandigarh and had to travel long distance on personal transport or public transport. The distances had to be evaluated on the time taken for transportation rather their Km distances. Most of them did not have a pretransport resuscitation or any care during transportation. Fifteen per cent were preterm and sixty seven per cent weighed less than 2500 g. Antenatal period was not supervised in 29% patients. Only 20% of the supervised deliveries had antenatal ultrasound examination. Less than 3% of the babies were referred prenatally with congenital abnormality. The commonest causes of referral were bile stained vomitus, delayed passage of meconium, respiratory distress, excessive oral secretions, difficulty in feeding, delayed passage of urine or absent anal orifice.

The female gender babies were positively discriminated against by the parents in assuring the quality of treatment. The factors that favored survival were birth weight >2.5Kg (p <0.05), absence of tachypnea (Respiration rate <50/m; p<0.05) and SpO2 >94% at admission. Against the requirement of 55 beds, 15 ventilators and 108 nursing staff (as per international norms) we only had 6 ICU beds, 3 ventilators and 26 nursing staff. In order to improve neonatal surgical survival several of these key factors will have to be corrected by the Government of India. Investment in neonatal surgery must be seen as a one-time investment, which results in healthy baby with normal longevity of life. Unless special attention is given by government of India or by UNICEF, WHO and other funding agencies, neonatal surgical mortality will continue to be high in developing countries. Investments on proper antenatal care and antenatal diagnosis will be very effective in improving surgical results.

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Involvement of BCG Scar in Kawasaki Disease

Kawasaki disease (KD) is an acute, generalized, self-limiting vasculitis of small and medium sized arteries of unknown etiology mostly affecting children less than 8 years age. As there is no diagnostic test for KD, the diagnosis is based on clinical criteria and exclusion of other diseases. An important clinical sign although not included in the diagnostic criteria, which helps in the diagnosis is involvement of the BCG scar - erythema and induration(2).

We report two cases of KD with involvement of BCG scar, which presented to our hospital.

Case 1: An 11-month-old female infant, immunized for age was referred to our department with history of fever, cough and skin rash of 10 days duration. On examination, child was irritable and febrile. Physical examination showed exfoliation in both axilla and over the back, fissuring of the lips, erythematous oral cavity, strawberry tongue and conjunctival injection. There was remarkable inflammation and induration involving the BCG scar. Systemic examination was normal.

Baseline investigations showed Hb 8.4 g/dL, TLC 13,800/cumm, DC-P72%, L-28%, ESR 70 mm/hr, Platelets 320,000/cumm, CRP-24 mg/L, Urine Micro 1-2 WBC/HPF. CSF study normal, S. Widal and ASO titer were negative; cultures (Blood, Urine, CSF) RFT, LFT, S. electrolytes were all normal. RA factor, ANA and dsDNA were negative. As conical picture was suggestive of KD, a 2-D ECHO study was done and reported as: abnormally dilated LMCA & LCD, consistent with KD.

Case 2: A 1-year-old fully immunized female child presented with history of fever and cough of one-week duration. At the onset of the illness, there was inflammation of the BCG scar as observed by the mother. On examination, child was irritable, had bilateral conjunctival injection, erythematous lips and oral mucosa. Systemic examination was normal.

Investigations were as follows: Hb 9.8 g/dL, TLC 14,200/cumm, DC-P64%, L-46%, ESR 115 mm/hr, Platelets 345,000/cumm, CRP 30 mg/L. Other investigations as done for the previous case were inconclusive. 2-D ECHO showed coronary artery dilatation/ectasia.

Both the children were started on IV Immunoglobulin (2 gm/kg over 12 hours), Tab. Aspirin (70 mg/kg/day) in divided doses and supportive care. Fever subsided dramatically within 24 hrs of Initiation of treatment. Subsequent blood investigations done during the third week of illness showed thrombocytosis and a fall in ESR. The convalescent period was unremarkable.