

Prognostic Indicators of Developmental Outcome in Preterm Infants

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Background: Long term follow up studies had revealed a high frequency of developmental disturbances in preterm survivors of neonatal intensive care.

Objective: To determine risk factors associated with adverse developmental outcome at 2-5 years in preterm infants.

Design: Retrospective Study.

Setting: Pediatric Department, Salmaniya Medical Complex.

Method: One hundred and fourteen children, aged 2-5 years, born prematurely at the gestational age of less than 37 weeks were included in the study. The children were grouped into three categories: 1. Normal development. 2. Mild to moderate impairment (ambulant cerebral palsy, or hearing loss 30 to 89 dB). 3. Severe impairment (hearing loss more than or equal to 90 dB or severe non ambulant cerebral palsy).

Result: Sixty-seven (58.8%) patients had normal development, 35 (30.7%) had mild to moderate impairment and 12 (10.5%) had severe impairment. Factors associated with developmental impairment were high grade intraventricular hemorrhage, serum bilirubin requiring exchange transfusion and retinopathy of prematurity (ROP).

Conclusion: An abnormal cranial ultrasound, high serum bilirubin and presence of necrotizing enterocolitis and retinopathy of prematurity are postnatal risk factors associated with an adverse developmental outcome in infants born prematurely.

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