

Prematurity and Neurodevelopment Outcome

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As the number of the preterm infant increased compared to the last decade, the rate of their survival increases and improved.

The surviving preterm infants increase, and so their neurodevelopmental outcomes too.

Their neurodevelopmental impairment decreased and so their behavioral disorders. Which is connected to the increase of their gestational age and birth weight.

The neonatal treatment of the gestational age 22-24 weeks may improve their development.

But they still experience adverse neurodevelopmental outcomes compared to term infants which is very much pronounced.

We notice such morbidity as bronchopulmonary dysplasia is more pronounced although the technology of neonatal care is now very much improved.

Prematurity is always associated with poor neurodevelopmental outcomes as general outcome.

So, we have to stress on establishing a follow up system for the premature infant and consider it as necessary and vital.

Definition for preterm infant is an infant born before 37 weeks of gestation, extremely preterm before 28 weeks and very preterm between 28-31 weeks.

The improved outcome of the peri viable preterm (between 22-23 weeks) is due to change of the ICN care in neuroprotective interventions as: Minimize excess noise exposure, rhythmic stimulation by use of devices such as oscillating or rocking mattresses and promoting parent-infant attachment. Positioning preterm NICU infants in flexion mimics intrauterine posture.

Position the infant with flexed limbs and shoulders. Kangaroo care or skin-to-skin contact between mother and infant to be more frequent.

Placing the naked infant against the mother's bare chest, between her breasts, in an upright position for several hours a day.

Encouraging parental involvement, support infant development to optimize preterm neurodevelopmental outcomes.

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