

Neonatal Ventilation—Teething Problems

Meharban Singh *et al.* have done a creditable job in neonatal ventilation in their recent article(1). In India, neonatal ventilation is in its teething stage. Lack of proper equipments like blood gas machine, non-invasive monitoring devices like transcutaneous PaO₂ monitors, pulse oximeters or even compressed air-oxygen source and lack of trained nursing staff make neonatal ventilation a really Herculean task and almost next to impossible.

While appreciating the good work, it is beyond reason why the authors ventilated 11 babies with transient tachypnea of newborn (TTNB). Either they were ventilated for the sake of ventilation or the diagnosis requires reconsideration. As per the available data as well as with our reasonable experience with neonatal ventilation in India and abroad, babies with TTNB usually do not require mechanical ventilation.

Babies below 1 kg, if ventilated, obviously have poor outcome. Over and above, a severe hyaline membrane disease and too complaint a chest wall, immaturity of the various organ systems, iatrogenic problems and infection add to the list. At the present

state of things, it is not cost effective in prolonged ventilation of such babies. Since majority of the ventilated babies in the present study were preterm, a head ultrasound to look for associated intraventricular hemorrhage, especially in relation to pneumothorax would have been worthwhile. In any positive pressure ventilation, a significant complication is pneumothorax, which if delayed in diagnosis, would have fatal results. Transillumination facility or a portable chest X-ray is a must.

Ventilation is an invasive procedure. The complications can range from endotracheal tube trauma, pulmonary interstitial emphysema, pneumothorax, bronchopulmonary dysplasia to retinopathy of prematurity. Nosocomial infection is the major problem. Among the few centres in India where neonatal ventilation is routinely practiced, the mortality is still around 40-60%. Hence, judicious selection of cases for mechanical ventilation, devotion and commitment are essential for better results.

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REFERENCE

1. Singh M, Deorari AK, Paul VK, *et al.* Three year experience with neonatal ventilation from a tertiary care hospital in Delhi. *Indian Pediatr* 1993; 30: 783 - 789.