



Postvaccination Apnea in Extremely-Low-Birth-Weight Infants

Jyoti Kandpal¹ · Mayank Priyadarshi¹ · Suman Chaurasia¹ · Poonam Singh¹ · Sriparna Basu¹

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To the Editor: This report highlights the incidence of adverse cardiorespiratory events (CREs) in extremely-low-birth-weight (ELBW) infants from a resource-limited setting.

Data were obtained from case records for ELBW infants admitted in neonatal unit of a tertiary care hospital in North India over a 1-y period. A total of 13 ELBW infants (mean BW 860 g, gestation 28.7 wk) received their first immunization with BCG, pentavac (DwPT + HiB + HBV), OPV, and fIPV at an average age of 62 d. These infants received vaccination, once stabilized, under monitoring for at least 48 h in hospital. Eleven infants (85%) developed adverse events; of which, fever was present in 9 (69%), apnea in 8 (61%), and vaccination site abscess in 2 infants (15%). Of the infants who suffered apnea, 6 (75%) responded to tactile stimulation and 2 (25%) required PPV and respiratory support for stabilization. Among infants developing apnea, there was antecedent history of culture-positive sepsis in 5 (63%), bronchopulmonary dysplasia in 4 (50%), severe intraventricular hemorrhage in 1 (13%), and retinopathy of prematurity requiring laser in 1 infant (13%).

Previous prospective studies have reported an incidence of 11%–38% for postvaccination adverse CREs in preterm infants [1]. The higher incidence of apnea in our study may be attributed to lower birth weight, increased sickness level, and use of DwPT rather than DaPT. Lower BW and gestation, late-onset sepsis, and prolonged respiratory support have been associated with increased incidence of CREs,

which was also apparent in our study [2]. Two infants developing abscess emphasizes the importance of aseptic vaccine administration. A limitation of our study was the small sample size, which made it difficult to ascertain the associated risk factors. Nevertheless, the high incidence of CREs indicates the need for observation for 48–72 h after vaccination in ELBW infants, irrespective of risk factors.

Declarations

Conflict of Interest None.

References

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✉ Mayank Priyadarshi
priyadarshi.aiims@gmail.com

¹ Department of Neonatology, All India Institute of Medical Sciences, Rishikesh, Uttarakhand 249201, India