



▼ POST GRADUATES ABSTRACTS

PG - 46 : PREVALANCE OF HEARING IMPAIRMENT AMONG NEONATES ADMITTED IN NICU IN A TERTIARY CARE CENTRE IN PUDUCHERRY

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Introduction: This study aimed to assess the prevalence of hearing loss using OAE in newborns admitted in the NICU and to determine the risk factors predictive of hearing impairment in high risk newborns.

Methods: Over a period of 18 months, a prospective cross sectional study of all neonates admitted for more than 48 hours in the NICU of a rural tertiary care centre was done. Neonates who died during the study period were excluded from the study. All candidates

underwent hearing screening in a sound treated room in the department using Distortion Product Otoacoustic Emissions (DPOAE) test at the time of discharge from the NICU. Babies who failed this initial screening underwent another OAE test within 1 month after discharge, and those who failed the test again were referred to an Otologist for comprehensive audiological assessment at 3 months.

Results: 200 neonates were included in the study, of which 101 (50.5%) failed the initial screening, One neonate (0.5%) failed the second OAE screening and moderate hearing screening was diagnosed in this child using BERA. Risk factors which had significant correlation with hearing screening failure included Mechanical ventilation ($p=0.01$), prematurity ($p=0.01$), low Apgar scores ($p<0.01$) and multiple gestation ($p<0.05$). Other conditions predominating in neonates

who failed hearing screening included TTN, MAS, LBW and neonatal jaundice. **Conclusion:** Newborn infants admitted to the NICU are exposed to multiple risk factors putting them at a higher risk for hearing impairment. The two staged screening protocol with DPOAE is a useful protocol in detecting hearing loss in newborns and should be implemented as a national programme.