

ASSOCIATION BETWEEN NEONATAL JAUNDICE AND SENSORINEURAL HEARING LOSS AMONG CHILDREN WITH SPEECH DELAY: A STUDY RSUP DR. SARDJITO FROM 2009-2013

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ABSTRACT

Background: Neonatal jaundice is commonly occurs in newborn baby. High level of unconjugated bilirubin can cause damage to the auditory nerve and basal ganglia. Damage to the inner ear or to the nerve pathways from the inner ear to the brain lead to SNHL and later to speech delay.

Objectives: to analyze the association between neonatal jaundice and sensorineural hearing loss among children with speech delay.

Method: This is a case-control study. The data of control and case subjects is collected by analysing the medical records obtained from RSUP Dr. Sardjito in 2009 to 2013. The medical record chosen is speech delay who were diagnosed with BERA test positive of SNHL and non-speech delay patients who were routinely come for immunization. The presence or absence of neonatal jaundice was traced retrospectively in each group. The proportion of neonatal jaundice in each group was statistically compared using Fisher exact test for their skewed distribution. Strength of association was expressed in odds ratio and CI95%. A p value less than 0.05 is considered statistically significant.

Result: Neonatal jaundice was found in 5 of 15 cases (33,3%) and in 73 of 129 controls (56,6%), which were not different statistically.

Conclusion: There is no association between neonatal jaundice and speech delay-related SNHL.

Keywords: neonatal jaundice, risk factor, sensorineural hearing loss, speech delay.