

HOSPITAL MORTALITY OF LATE PRETERM INFANTS WITH HYPOPLASTIC LEFT HEART SYNDROME

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Aim: We evaluated the effect of late preterm (born 34-36 weeks) delivery on hospital mortality of infants with hypoplastic left heart syndrome (HLHS).

Methods: Retrospective review of records of infants born at or after 34 weeks with no lethal anomalies, cared for in a single tertiary perinatal center between 2002 and 2009. Factors associated with death prior to discharge from the hospital were ascertained using univariate and multivariate analyses. Mode of delivery, place of birth, presence of other cardiac and non-cardiac congenital anomalies, late preterm birth, intrauterine growth restriction, multiple birth, race and gender were the variables retained in the forward multivariate logistic regression model.

Results: Of the 243 infants with HLHS, 35 were late preterm and 208 were ≥ 37 weeks (term). Both groups had similar total duration of hospitalization for survivors and non-survivors. Most of these infants (94% of the late preterm group and 95% of the term group) underwent palliative cardiac surgery. However, hospital mortality following these surgical procedures was significantly higher in the late preterm (42% vs 17%, $p=0.002$). Using logistic regression analysis, (OR; 95% CI) late preterm delivery (2.95; 1.35 - 6.45), the presence of other major CHD (3.76; 1.31-10.81) and the presence of non-cardiac congenital anomalies (6.13; 1.43 - 26.22) were independently associated with hospital death.

Conclusions: In a population of infants with HLHS who were considered to be candidates for surgical repair, late preterm birth was independently associated with increased risk of hospital death compared to those delivered at more mature gestational ages.