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Abstract

Background: Neonatal mortality is an important index of community development, mainly occurring in live-born very-low-birth-weight (VLBW). This retrospective cohort study aimed to assess predictors of death among VLBW infants during hospitalization in Kamali Hospital, Iran.

Methods: This retrospective cohort study was conducted over 15 months, from the middle of September 2019 to the end of December 2020. The demographic and clinical characteristics of infants and their mothers and in-hospital mortality data were obtained from the hospital records. Multivariate logistic regression models were conducted to determine the in-hospital neonatal mortality predictor factors.

Result: Of 242 included VLBW neonates, 60.7% (147) received Neonatal Intensive Care Unit (NICU) care. Among all infants, 81% (196) were discharged as cured and 19% (46) died. Respiratory Distress Syndrome (RDS) (67.3%), congenital malformation (26%), and prematurity (21.7%) were the main causes of death. In the multivariate model, significant predictors of in-hospital mortality in VLBW infants were gestational age (odds ratios (OR) (95% confidence intervals (CIs)): 0.77(0.64-0.92)), infant weight (0.997 (0.994-0.998)), RDS (2.26 (1.03-4.91)), and congenital malformation (7.56 (2.59-22.07)) (all P-values<0.05).

Conclusion: RDS, congenital malformation, birth weight, and gestational age might be the main predictors of in-hospital neonatal mortality in VLBW infants.

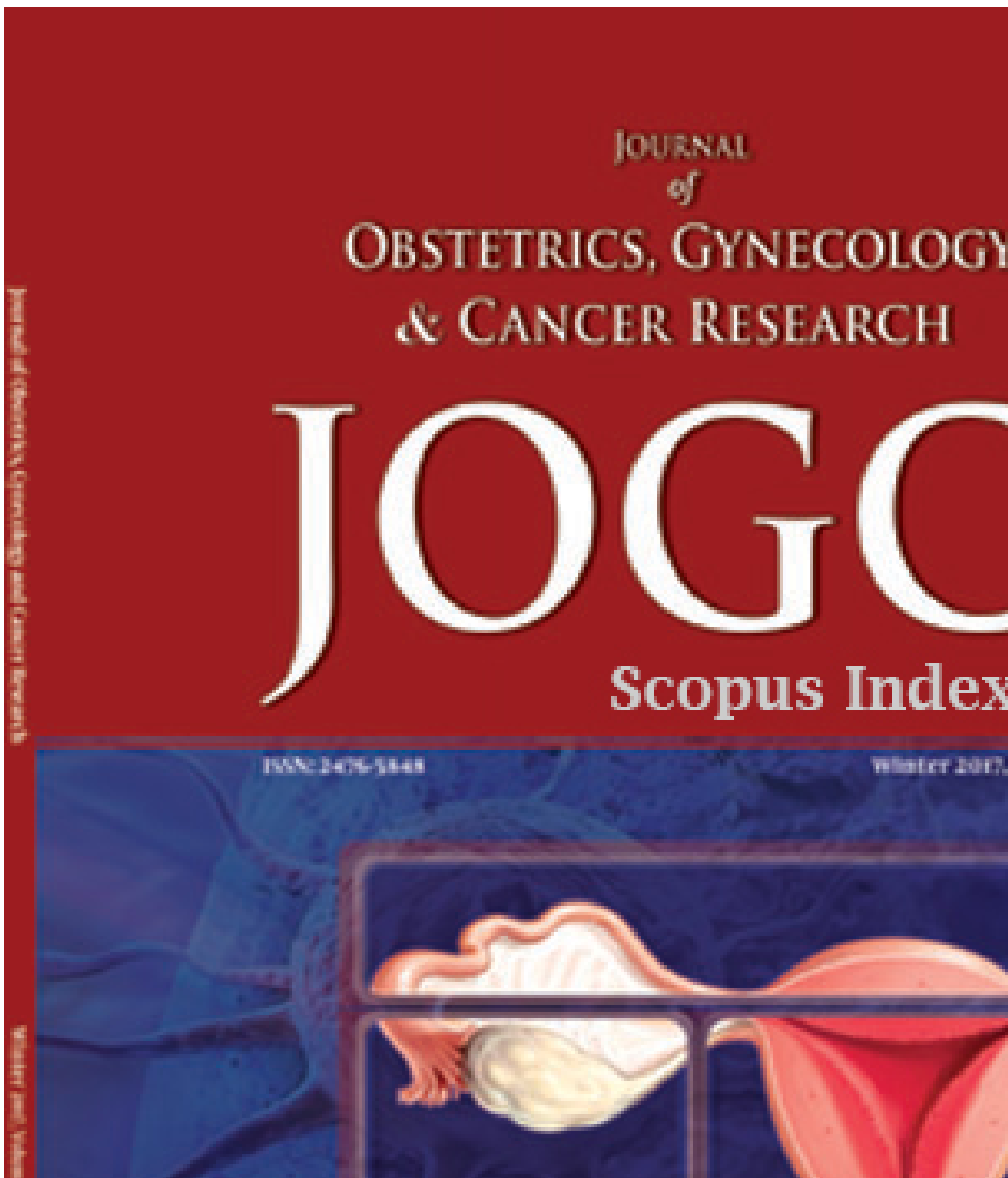
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- neonatal intensive care unit

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