Abstract

Kawasaki disease (KD) is a pediatric disease of unknown etiology that commonly affects infants in East Asia. Infants born small for gestational age (SGA) have weaker immune systems and are more susceptible to infection. Using data from a nationwide Japanese birth cohort study conducted in 2010 (n=34,579), we investigated whether SGA increases the risk of KD. SGA was defined as birth weight below the 10th percentile for gestational age. The outcome was hospitalization for KD between 6 and 30 months of age. The association between SGA and hospitalization for KD, adjusted for child and maternal factors, was examined using logistic regression. Of the 231 children hospitalized for KD, 9.5% were SGA. Further statistical analysis showed that SGA did not increase the odds ratio (OR) of hospitalization for KD (adjusted OR 1.12, 95% confidence interval 0.71–1.75). This result was not changed with stratification by early daycare attendance and preterm status. Reasons for the lack of association may include the multifactorial pathogenesis of KD; in addition, the types of infections to which SGA infants are predisposed may differ from those triggering KD. Overall, our large nationwide study found no association between SGA and KD.