

## FACTORS ASSOCIATED WITH THE TYPE OF BIRTH IN THE ASHRAFF MEMORIAL HOSPITAL-KALMUNAI

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### Abstract

Caesarean is a major surgical procedure undertaken in obstetrics and its rate is increasing over time. In Sri Lanka, health statistics shows that there is an increase in caesarean rate from 13.3% in 1998 to 33.2% in 2015. Due to its potential serious risks and the burden on the health system, many authorities have recommended for reducing the caesarean rate. In this study, entire 1453 live births during the six months period from 01<sup>st</sup> of January to 30<sup>th</sup> of June 2019, in the Ashraff Memorial Hospital, Kalmunai were studied for identifying the factors associated with the type birth and the type of association. Type of Birth (Caesarean or Normal) was considered as a binary response variable and Parity, age, weight, height of mother and gender, weight, length, shoulder length, head circumference of the baby were treated as explanatory variables. A binary logistic regression model was fitted and using the direction of the estimated coefficients, the associations were explained. Moreover, the Hosmer-Lemeshow goodness of fit test was used to check the adequacy of the fitted model. It was found surprisingly that the caesarean rate in this hospital is 57.54. Parity, Baby's Shoulder Length (BSL), Baby's Length (BL), Baby's Weight (BW), Mother's Age (MA) and Mother's Weight (MW) were found to be the most associated factors with the type of birth. BSL, MA and MW had positive association with the Caesarean birth whereas Parity, BL and BW had negative association with the Caesarean birth.

**Key words:** Caesarean, Chi-square Test, Logistic regression, Odds ratio, Type of Birth