

An overview on the shoulder dystocia risk factors and outcomes at Hospital Seberang Jaya, Penang from year 2021 to 2024: A retrospective study

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ABSTRACT

Introduction: Shoulder dystocia (SD) occurs when a vaginal cephalic delivery requires additional obstetric maneuvers to deliver the fetus after the head has delivered and gentle traction has failed. Identified risk factors of SD with appropriate intervention can significantly reduce maternal and neonatal mortality and morbidity. **Objectives:** The study aims to identify the contributing risk factors of SD cases and maternal-fetal outcomes at Hospital Seberang Jaya, Penang (HSJ) from year 2021 to 2024. **Materials and Methods:** A retrospective cohort design – reviewed the medical records of all deliveries complicated by SD and compared with random samples of non-SD. Studied parameters included demography, obstetric history, antenatal risk factors, mode of delivery, applied manoeuvres and interventions, duration of dystocia, maternal and neonatal outcomes. Statistical data were analysed to identify the relationship between risk factors and outcomes. **Results:** The incidence rate of SD in HSJ was 0.48%. Univariate analysis showed significant correlation ($p < 0.05$) between SD vs non-SD groups in terms of higher values in Body Mass Index (28.5 ± 5.9 vs 26.0 ± 4.5), baby birth weight (kg) (3.7 ± 0.4 vs 3.1 ± 0.2), blood loss (mL) (354.0 ± 249.4 vs 242.7 ± 66.6) previous history of SD (%) (5.3 vs 0.0) and reduced Apgar score (8.3 ± 1.4 vs 9.0 ± 0.0). Multivariate logistic regression also showed a significant association between augmentation of labour and birth weight with the occurrence of SD (odds ratio of 4.7 and 0.003, respectively). Other studied parameters were not significantly different. **Conclusion:** Contributing risk factors of SD have been identified in this study. It helps in the early recognition of high-risk pregnancies and the management of SD cases.