

Comparison of neonatal outcomes of caesarean sections performed after conversion from neuraxial to general anaesthesia with caesarean sections performed under general anaesthesia from the outset: a retrospective study

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Abstract

Objectives: To compare the neonatal morbidity of caesarean sections (CS) performed after conversion from neuraxial (NA) to general anaesthesia (GA) with CS performed under GA from the outset, and to assess whether the increase in DDI in urgent and extremely urgent cases with conversion from NA to GA increased the risk of neonatal morbidity. **Design:** Retrospective cohort study. **Setting:** University-affiliated hospital. **Population:** All CS performed under GA between 2015 and 2019. **Methods & main outcome measures:** Our main criteria used for assessing neonatal morbidity were: neonatal pH <7.10 and/or an Apgar score at 5 minutes <7. A multivariate regression analysis was performed to adjust for gestational age, birth weight, indication of CS. **Results:** We included 284 patients: 116 had a conversion from NA to GA (group 1) and 168 had GA from the outset (group 2). There was no significant difference in the rate of neonates having a pH<7.10 and/or Apgar score <5 between groups 1 and 2 (17.5% Vs 26.3%, p=0.08, respectively). Multivariate analysis showed that neonatal morbidity was comparable between the two groups (OR=1.58; 0.83-3.05). In very urgent CS, the mean decision-to-delivery interval (DDI) was 3 minutes longer in group 1 compared to group 2 (17 min vs 14 min, respectively), and there was no significant difference in neonatal pH and/or Apgar <7 at 5 minutes between the two groups (aOR=1.4; 0.5-4.3). **Conclusion:** The neonatal outcomes were comparable between CS performed after conversion from NA to GA and under GA from the outset, even in very urgent CS.

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