

Impacted head at Caesarean-section, can the use of fetal pillow improve safety?

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Objectives: To compare maternal and fetal outcomes in cases of Caesarean section at full dilatation with and without the use of fetal head elevation device.

Methods: Retrospective cohort. Data was collected from the electronic maternity records database used in the hospital over period of 5 years, comparison performed between two groups of CS at full dilatation: with or without the use of fetal pillow.

Main Outcome Measures: Maternal complications; total blood loss within 24 hours after caesarean section and neonatal complications; rate of cord blood Ph < 7.1.

Results: A total of 233 cases were included. Fetal pillow was used in 114 cases, no other method of head elevation used in 119 cases.

There were no significant differences between both groups in maternal age, body mass index (BMI), parity, ethnicity, neonatal birth weight, gestational age at delivery, onset of labour, category of Caesarean section nor prior trial of instrumental delivery between two groups.

There was no significant difference in maternal outcomes between both groups with mean blood loss within 24 hours of 738 ml and 768 ml (P value = 0.65). No difference identified with more clinically significant bleeding i.e., blood loss > 1000 ml and > 1500 ml, with P value of 0.71 and 0.18 respectively.

Other complications including uterine scar extension, uterine atony, high dependency unit admission, hospital stay more than two days were collated to a composite complication rate, again was not statistically different between groups (P 0.11). Neonatal Apgar score < 7 at one and at five minutes, showed no significant difference with the use of fetal pillow, with P value of 0.09 and 1 respectively.

Data of neonatal cord blood Ph showed rate of neonatal cord blood Ph < 7.1 was significantly lower in fetal pillow group, with 1 case versus 10 in cases of delivery without pillow (P = 0.013).

Conclusion: The use of fetal pillow with impacted fetal head might be associated with improved neonatal outcome, with lower chances of cord ph < 7.1.