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Is gastric aspiration needed for newborn management in delivery room?

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Abstract

AIM: Gastric aspiration is still applied in many centres during delivery room management of the newborn without any supporting evidence. We aimed to determine whether gastric aspiration affects vital signs, oxygenation, nutrition and short-term prognosis of the newborn.

METHOD: A total of 310 eligible healthy term newborns, identified from a total of 1300 live births, were randomly allocated to receive either gastric aspiration or standard care. During the first 20min, SpO₂, heart rate, cyanosis and retraction scores were recorded once in a min; and blood pressure, respiration rate and neuroadaptive capacity were recorded once in every 5min. Information about nutrition and vomiting behaviours of the babies were taken from the mothers of the neonates on the postnatal 1st day at bedside and by a telephone call on the 7th day.

RESULTS: No difference was determined between the groups in terms of 1st to 5thmin Apgar scores, attainment duration of SpO₂ to 85%, 92% and 95%, mean heart rate and respiration rate. Retraction frequency and mean systolic blood pressure of the 5th-min values were found to be significantly higher in the gastric aspiration group. There was no difference between the groups regarding breastfeeding starting time and vomiting frequency.

CONCLUSION: No positive effect of gastric aspiration in delivery room management of the newborn was observed.

Conversely, the negative effects of gastric aspiration in neonates were observed with respect to physiological parameters. Our data suggest that gastric aspiration is not useful and may even be harmful in delivery room management of the healthy term newborns.