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Letter to editor

Critical aspects of dystocic delivery and neonatal outcome

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To the Editor,

We would like to call attention to the impact of dystocic delivery on neonatal outcome, a topic that is always under current discussion in neonatology and gynaecology and its relevance in terms of neonatal and maternal outcomes and medicolegal implications. Among the various topics, different authors have focused on the safety of the controversial Kristeller maneuver, which is widely used in delivery rooms around the world, despite several doubts regarding the health of the newborn. Api et al carried out a randomised controlled trial on 197 term pregnancies (1). The primary outcome measure was the duration of the second stage of labor and the secondary outcome measures were umbilical artery blood gas analysis values and maternal-fetal morbidity/mortality. Application of the maneuver on a delivering woman was ineffective in shortening the second stage of labor. About secondary outcomes, there were no significant differences in pathological Apgar scores and in blood gas analysis values, except for mean pO2, which was lower, and mean pCO2 which was higher in the maneuver group. However, the values still remained within normal ranges. Pinar et al conducted a cross-sectional study on 350 women in full-term pregnancies. Kristeller maneuver was found to be commonly applied even without a specific indication and associated with higher episiotomy rates. However, the technique did not produce a negative impact on maternal/neonatal health (2). As reported by Malvasi et al, there is certainly a need to draft specifically targeted guidelines for maneuvers during vaginal delivery, in which to point out exactly which techniques are to be absolutely banned and what maneuvers are to be allowed in specific situations (3). Positive evidence on neonatal outcome emerged in relation to the use of intrapartum ultrasound (IU) in dystocic birth. Indeed, ultrasound appears to improve fetal head malposition diagnosis and prevent neonatal complications due to the use of forceps or vacuum extractor, including the risk of peripartum infections linked to delivery modalities (4). The improvement in the diagnosis of fetal malpositioning is useful for the detection of cases of labour arrest; this could be useful in reducing inductions, a risk factor associated with certain maternal complications such as amniotic embolism (5). IU use could prove valuable from a clinical as well as medicolegal perspective, in terms of providing a degree of clarity and objectivity in the documentation of the intrapartum findings on which clinical decision or specific obstetric interventions were based. The ability to produce sustainable exculpatory evidence may in fact prove essential for defendant doctors in case of litigation. As for waterbirth, conflicting results are available in the literature in terms of its safety. Doubts remain about the safety of immersion during the second stage of labour and delivery, particularly in terms of neonatal risks. Complications described in the literature include respiratory problems (including the possibility of drowning in fresh water), umbilical cord rupture with haemorrhage, and water-borne infections (cases of major infection with Pseudomonas aeruginosa and Legionella pneumophila have been reported). Therefore, water birth as a mode of delivery should not be considered as standard clinical practice (6).

Conflict of Interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article

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