100% CAESAREAN SECTION (CS) FOR TWIN PREGNANCY DOES NOT PUT THE SECOND TWIN AT DISADVANTAGE

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Background: The optimal delivery mode for twin pregnancies remains controversial.

Aim: To compare the outcome and medical interventions of the first and second co-born twin in a setting of 100% CS rate.

Methods: A single-centre retrospective cohort design was used to study all preterm twins (< 37 weeks' gestation) admitted to the Division of Neonatology of the Polytechnic University of Marche (Ancona, Italy), from January 2004 to December 2010. All twin pair pregnancies consecutively admitted were studied. Antenatal and perinatal data were prospectively collected using the NICU data-base. All major and minor neonatal diagnoses, all medical and surgical treatments and diagnostic procedures were recorded and compared between the first and second twin using pair data analysis.

Results: 176 twin pregnancies (352 newborns) were evaluated, 105 (59,7%) were emergency CS and 71 (40,3%) elective CS. There was no difference in death ($p=0,549$) and in the common diseases of prematurity (respiratory distress syndrome ($p=0,607$), hyaline membrane disease ($p=0,839$), bronchopulmonary dysplasia ($p=0,238$), patent ductus arteriosus ($p=0,824$), grade 3 or 4 intraventricular hemorrhage (0,804), grade 3 or 4 retinopathy of prematurity ($p=0,424$), sepsis ($p=1,000$), pneumonia ($p=1,000$), stage 2 or 3 necrotizing enterocolitis ($p=0,453$), periventricular leukomalacia ($p=0,625$), asphyxia ($p=1,000$)). There was also no difference in the use and duration of all medical interventions and procedures.

Conclusion: With a 100% CS rate the outcome of the second twin was similar to the first born. We speculate that unlike in the case of the vaginal delivery, CS does not put the second twin at disadvantage.