

PATHOLOGIC FETAL ACIDEMIA AND NEONATAL MORBIDITY.

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Objective: The purpose of the present study was to identify the morbidity and mortality in fetuses with pathologic acidemia at birth.

Material and Methods: An umbilical artery pH value <7.00 was observed in 40 term singleton live-born infants (1.82% of 2,195) delivered from April 2000 through March 2001 at University Hospital of Santa Maria. Values of pH were analyzed, according various neonatal morbidities. Non-parametric tests were used for statistical analysis and $p < 0.05$ was considered as significant.

Results: Eighty-five percent of the patients had prenatal care. Eight patients (20.0%) had pregnancy-induced hypertension. Incidence of CS and forceps was 55.0% (22 cases) and 12.5% (5 cases) respectively. Meconium-stained amniotic fluid was found in 19 cases (47.5%) and 1 abruptio occurred. Seven cases had 1-minute Apgar score <4 and 2 cases reminds <4 at 5th minute. Respiratory ($pCO_2 \geq 65$ mmHg), metabolic (base deficit ≤ 16 mEq/L) and mixed acidemia was observed in 16, 8 and 16 fetuses, respectively. Main neonatal morbidities were: 2 seizures, 4 meconium aspiration syndromes, 2 cerebral hemorrhages. Eleven newborns were admitted at neonatal intensive care unity (NICU). Of these, 7 shown an arterial blood pH less than 6.9 (vs. 4 with arterial pH between 6.9 and 6.99). A significant association was found between these umbilical arterial pH values and NICU admission. Two neonatal deaths occurred (5.0%).

Conclusion: Pathologic fetal acidemia in term fetuses, was associated with important neonatal events, like seizures, meconium aspiration syndrome, cerebral hemorrhage and death. Umbilical arterial pH less than 6,9 seems to increase the severity of morbidities, and so, NCIU admission.