

prior to the procedure and subsequently throughout the ROP examination, which on average lasted 2 minutes. The results were documented on an Excel spreadsheet and analysed using the paired T-test.

Results: A total of 19 infants were studied. The skin conductance peak rate (mean) was 0.017 peaks/s at baseline and was 0.14 peaks/s during the procedure ($p < 0.001$).

Conclusion: The findings indicate that ROP screening causes a degree of stress to preterm infants. The Med-Storm Pain Monitor permits the quantification of the degree of stress encountered by the infant. This technology offers the potential of being able to identify and modify the distress caused by neonatal procedures.

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COMPLICATIONS IN THE NEAR TERM AND TERM INFANTS WITH SEVERE UMBILICAL ARTERY ACIDEMIA

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Background and aims: Umbilical artery acid-base status is a useful marker of the fetal condition just before birth. The objective of our study was to determine the newborn complications in near term and term infants associated with umbilical artery acidemia of $\text{pH} \leq 7.10$.

Study design: We retrospectively reviewed the maternal and neonatal records of infant's ≥ 35 weeks, born between March 2007 and February 2010, with umbilical artery blood $\text{pH} \leq 7.10$. Umbilical artery acidemia was classified as metabolic, respiratory and mixed.

Results: 179 babies had an umbilical artery pH of ≤ 7.10 , of which 59 had an umbilical artery $\text{pH} < 7.00$ and 120 had pH between 7.00 - 7.10. Overall 129 (72%) babies showed evidence of fetal distress; 82(45%) underwent emergency caesarean section, 41(22%) underwent instrumental vaginal delivery. Table below describes the neonatal complications in the two groups.

Complications	$\text{pH} < 7$ (n = 59)	$\text{pH} 7.00 - 7.10$ (n=120)
Mixed or metabolic acidosis	57(97%)	43(36%)
Admission to NICU	38(64%)	11(9%)
Clinical seizures (median onset 8 hours)	20(34%)	2(1.6%)
HIE(moderate/severe)	22(37%)	2(1.6%)
Cerebral function monitoring abnormalities	16(27%)	2(1.6%)

[Umbilical cord acidosis and neonatal outcomes]

Conclusion: The risk of moderate or severe hypoxic ischemic encephalopathy and neonatal seizures is high if umbilical artery pH is < 7.00 along with presence of mixed or metabolic acidosis. Hence these babies should have cerebral function monitoring at least for the first 24 hours.

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INCIDENCE OF HYPOTHERMIA IN LOW BIRTH WEIGHT INFANTS ADMITTED TO THE NEONATAL INTENSIVE CARE UNIT BETWEEN 2002 AND 2009

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Background: Not all LBW infants require admission to the SCBU. Hypothermia ($< 36.5\text{C}$) in premature infants may necessitate admission to SCBU. This interferes with mother-infant bonding and breast-feeding. LBW infants are particularly at risk of hypothermia because of larger surface-area-to-weight ratio, reduced subcutaneous fat and impaired metabolic compensation. This study examines the incidence of hypothermia in moderately low birth weight (LBW) infants.

Aims: To document the incidence of hypothermia on admission in moderately LBW infants between 1800 - 2500 grams admitted to the Neonatal Unit of the Rotunda Hospital between 2002 and 2009 and compare it to the hypothermia rate in larger babies.