

with ATGA and LI with LTGA ($X^2=652,39$ $p < 0,001$). Hypoglycemia (3.5%) was associated both with SI and LI ($X^2= 9,15$ $p < 0,01$) and with o PTGA, SPTGA and LTGA ($X^2=11,99$ $p < 0,007$). The Respiratory Distress Syndrome (0.5%) was associated with SI ($X^2 =43,35$ $p < 0,0001$) and PTGA ($X^2= 55,70$ $p < 0,0001$). No association was found between jaundice (15.2%) or Sepsis (0.7%) and any of the extracts.

Conclusion: The weight/length index may represent a key contribution to the NB risk classification with sensitivity similar to that of the weight/gestational age adequacy, for the affections studied.

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OUTCOME OF PRETERM INFANTS WITH NECROTISING ENTEROCOLITIS OR SPONTANEOUS INTESTINAL PERFORATION REQUIRING LAPAROTOMY FROM A LEVEL III NICU

K. Tan¹, J. Vakayil-Francis¹, C. Karyadiguna¹, K. Bawden¹, P. Ferguson², A. Sehgal¹

¹Monash Newborn, ²Paediatric Surgery, Monash Medical Centre, Melbourne, VIC, Australia

Background: The NICU at Monash Newborn is part of an integrated perinatal centre, where infants requiring surgery can be treated in-house. Emergency surgery is often performed within our NICU. Preterm infants who require laparotomy for either spontaneous intestinal perforations (SIP) or perforated necrotising enterocolitis (pNEC) represent a group of infants with very high mortality (ranging from 20 to 50%). The aim is to study the outcome of these infants from our centre over a 5-year period.

Method: Preterm infants (2004 to mid-2009) < 32 weeks gestation who had diagnoses of either SIP or pNEC were identified from our NICU database. X-Ray images and reports were re-assessed. A proforma was used to extract data for these infants.

Results: In total 21 infants were identified. Eleven infants had SIP while 10 had pNEC. The average age (\pm SD) for surgery was 6.9 (\pm 5.9) days for SIP and 33.1 (\pm 19.6) days for pNEC (t-test; $p=0.002$) with overall age of 19.2 (\pm 19.3) days. Overall mortality rate was 23.8% (18.2% for SIP and 30% for pNEC). Median (IQR) length of stay (LOS) for all survivors was 109 (64 to 199) days, while SIP infants' LOS was 70 (38 to 199) days and pNEC infants' LOS

was 143 (123 to 183) days. Three infants from the SIP group had grade III/IV IVH in SIP while 1 infant with pNEC had PVL.

Conclusions: The mortality rate from our centre is comparable to published outcomes. SIP presented with perforation at a significantly earlier age compared to pNEC.

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GESTATION, NOT RATE OF GROWTH IN VERY PRETERM BABIES, DETERMINES THE RISK OF RETINOPATHY OF PREMATURITY (ROP)

V.S. Garikapati¹, A. Kipioti², M. Watkinson¹

¹Neonatal Unit, ²Department of Ophthalmology, Birmingham Heartlands Hospital, Birmingham, UK

Background: Poor post-natal weight gain in preterm babies has been identified as predicting severe ROP. Monitoring it to select babies at risk could reduce ophthalmological examinations.

Aim: To review the relationship between post-natal weight gain and ROP.

Methods: A review of 263 consecutive babies < 32 weeks and/ or < 1500g in 2008-9. Growth was measured as time to regain birthweight and weight gain in g/kg/day between days 21 and 42. ROP screening and grading was in line with UK national guidance.

Results: Forty babies died. 54 were discharged before day 42: none developed severe ROP. 169 survivors had full data.

Overall 9(4.2%) of survivors needed treatment.

Stage of ROP	Number	Gestation (wks) Mean (SD)	Birth weight (g)	Days to regain birth weight	Weight gain days 21- 42 (g/Kg/day)
0	103	29.3 (2.1)	1188 (288)	14.0 (5.5)	15.1(4.5)
1	31	27.5 (2.1)	952 (280)	12.8 (4.3)	12.9(4.9)
2	21	27.6 (2.4)	1046 (236)	15.2 (5.9)	12.6(5.6)
3	13	26.8 (2.2)	875 (272)	13.4 (5.8)	11.7(7.5)
Aggressive posterior	1	24.4	550		13.1

[Findings]