ECMO, both of whom survived to discharge as did all babies who underwent surgical repair of the CDH.
Conclusion There was an 11.1% mortality rate increase amongst the cohort studied when compared with the preceding 5 year block. A notably lower termination rate (28% vs. 50%) could possibly account for this, in addition to associated anomalies as above. Variations in management approach within the team was observed leading to the subsequent formulation of an evidence based protocol to improve care quality and future outcomes as current evidence suggests.

PS-297a CATCH-UP-GROWTH IN TERM AND PRETERM INFANTS AFTER SURGICAL CLOSURE OF VENTRICULAR SEPTAL DEFECT IN THE FIRST YEAR OF LIFE: ONLY GOOD NEWS?

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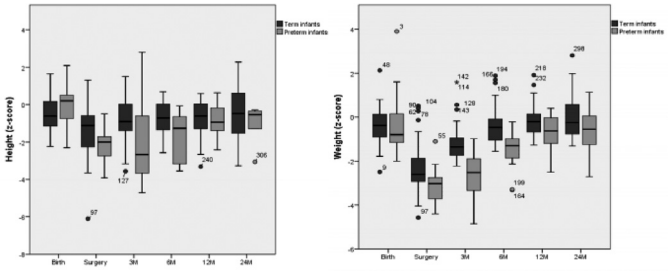
Failure to thrive is common in children with non-restrictive ventricular septal defect (VSD). Normalisation of growth has been reported after early surgical correction. However the literature is inconsistent about growth velocity after surgery in term and preterm infants.
Objective Establishing the pattern of catch-up growth in infants submitted to VSD surgical repair before 1 year of age, for term and preterm infants.
Methods 52 infants (41 term, 11 preterm) were studied. Anthropometric data at birth, at time of surgery and 3, 6, 12 and 24 months after surgery, collected retrospectively, were converted to z-scores. Statistic analyses was performed in SPSS® version 21, α=0,05.
Results Mean weight and height z scores at the time of surgery were significantly lower for term infants (-2,24 and -1,42, respectively; p < 0,001) and preterm infants (-3,07 and -2,22; p = 0,003). A higher growth velocity was observed in the first three months after surgery. For term infants, catch-up growth was completed 6 months after surgery (mean weight and height z scores were -0,39 and -0,7, respectively). Preterm infants completed their catch up growth one year after surgery. There were no statistically significant differences in mean weight and height between term and preterm infants 24 month after surgery.
Conclusions Early surgical repair of VSD leads to a significant acceleration of growth, mainly in the first 3–6 months after surgery. An increased weight gain velocity has been associated with higher cardiovascular risk later in life. Knowledge of this specific catch-up growth pattern is important and should influence nutritional goals after surgery.



Abstract PS-297a Figure 1

Perinatal Infection

PS-298 RANDOMISED CONTROLLED TRIAL TO COMPARE EFFICACY OF DIFFERENT TIMING OF ANTIBIOTICS AT CAESAREAN SECTION AND THEIR EFFECT ON MOTHER AND NEWBORN

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Background During caesarean section, prophylactic antibiotics are usually given after cord clamping (instead of prior to skin incision) for fear of antibiotics having adverse effects on the newborn and promoting resistant strains.
Objective To compare efficacy of intravenous cefazoline administered during caesarean section either before skin incision or after cord clamping, on mother and newborn.
Setting Tertiary care perinatal centre in south India.
Methods Term gestation mothers posted for caesarean section were randomised to receive two medicinesIV cefazoline/ placeboone prior to skin incision, one after cord clamping. Mothers and babies were monitored for evidence of infection or adverse events during hospital stay. They were reviewed at 45 days to look for complications.
Results 1106 mothers were recruited. At baseline, mothers and babies in both groups were similar. The mean (SD) duration of hospital stay for mothers in both groups was 5.3(1.5) days. Mothers who received antibiotics prior to skin incision had less post operative complications compared to mothers who received antibiotics after cord clamping (p = 0.000). Mothers who received antibiotics after cord clamping stayed longer in hospital (p = 0.008). Babies in both groups had similar rates of nursery admissions, sepsis, NEC and hospital readmission following discharge.
Conclusions IV antibiotics can be safely administered to mothers prior to skin incision which decreases postoperative infectious morbidity without adverse effects in babies.

PS-299 HAEMATOLOGICAL MARKERS OF VERTICAL TRANSMISSION OF GENITAL MYCOPLASMAS IN PREMATURE INFANTS

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Background Genital mycoplasmas (Ureaplasma urealyticum-Uu or Mycoplasma hominis – Mh) are low grade pathogens associated with complications of pregnancy (chorioamnionitis and preterm labour); but their role as neonatal pathogens is controversial.
Aim To identify haematological markers of vertical transmission of genital mycoplasma in premature newborn infants.
Methods A retrospective cohort study done at University of Connecticut Health Centre NICU with admissions from 2003–2010. Intubated infants in the NICU had tracheal cultures sent

Abstract PS-299 Table 1

Variable	GM+ve	GM-ve	p value
Number infants	50	311	
GA (wk)	26.6 ± 3.2	28.7 ± 3.5	0.0001
Premature Rupture Membranes	60%	38%	0.0032
Prolonged Rupture Membranes >12 hr	40%	23%	0.0047
Delivery Mode C-section	62%	75%	0.0492
Prenatal macrolide antibiotics	44%	27%	0.0143

for genital mycoplasmas (GM) and complete blood counts within 24 hrs. of birth. Infants with GM+ve were compared with GM-ve for perinatal and neonatal variables.

Results Of the 361 infants with tracheal aspirate cultures sent for GM, 50 positive were GM+ve (See Table). Infants GM+ve had significantly higher platelet counts compared to those GM-ve (285 ± 177 *vs.* 196 ± 83; p = 0.007). After controlling for perinatal variables (GA ≤32 wk., premature rupture of membranes, delivery mode, prenatal antibiotics and prenatal steroid) in GM+ve the adjusted odds ratio for an initial platelet count of > 250,000 was 3.83 (95% CI 1.5–9.8) with p value of 0.0049. However, GM+ve infants had no significant changes in other haematological parameters such as total WBC counts, neutrophil, monocyte, lymphocyte or eosinophil counts.

Conclusions Vertical transmission of GM to the infant is manifested subtly at birth without significant changes in haematological parameters except an increase in platelet count > 250 K.

Significance Increase in platelet counts at birth may be an important marker for the effects of GM on premature newborn infants.

PS-300 CHORIAMNIONITIS AND CRP AS MARKERS FOR SHORT AND LONG TERM OUTCOMES IN PREMATURE INFANTS

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Background Early infant CRP levels in the setting of Chorioamnionitis (CA) have not been fully defined as a predictor of cognitive, behavioural, and neuro-developmental outcomes among extremely preterm neonates.

Methods 499 preterm neonates had Placental pathology, CRP level and Vermont Oxford outcomes recorded. Death and developmental outcomes at 2 yrs were examined for 247 preterm infants <32 wks and <1.5 kg. Multivariable logistic and linear regression models were developed to assess the association between CA and outcomes controlling for gestational age.

Results 499 preterm infants were included with mean birth weight of 1074 +/- 273 g and gestational age of 28.5 +/-2.7 weeks. Infants with CA (N = 127) had lower GA and birth weight and higher rates of early onset sepsis. The Fetal inflammatory response was associated with: Apgar <7 at 10 mins; intubation in the delivery room; PDA; RDS; pneumothorax and oxygen on Day 28.

Infants with Day 1 CRP >10 mg/L needed significantly more resuscitation in the Delivery room (DR) including adrenaline and cardiac compressions. They were significantly more at risk of RDS, ROP, grade III/IV IVH.

Conclusion There is a correlation between both initial CRP and histological CA with adverse short term outcomes.

PS-301 CONDITIONS OF INTESTINAL COLONISATION IN PRETERM INFANTS DURING THE FIRST MONTH OF LIFE

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Aim To describe intestinal microbiota in preterm infants admitted to the Neonatal Unit using molecular techniques, and assess the impact of different conditions.

Methods/study design A two year period Descriptive study (2011–2012) of gut microbiota in stools from newborns borns under 35 week gestational age (WGA) at birth, admitted in a Neonatal Care Unit. Stool samples were collected: M1 (meconium), M2 (first week), M3 (first month). 5 groups of bacteria were analysed using qPCR technique: *Bacteroides*, *Bifidobacterium*, *Escherichia coli*, *Clostridiums* and *Lactobacillus*. Maternal, perinatal and neonate variables were registered. Statistic programs SPSSvs 20.

Results In the first month a marked increase (x120) in *Bifidobacterium* is observed. The increase of *Lactobacillus* (x2) and E. coli (x7) is lower. *Bacteroides* and *Clostridium* remain stable.

Abstract PS-301 Table 1

	E coli	*Clostridium*	*Bacteroides*	*Bifidobacterium*	*Lactobacillus*
M1 (n = 82)	$1{,}51 \times 10^3$	47,3	22,53	$4{,}16 \times 10^4$	$3{,}30 \times 10^3$
M2 (n = 74)	$4{,}77 \times 10^3$	31,63	12,39	$2{,}04 \times 10^5$	$7{,}04 \times 10^3$
M3 (n = 35)	$1{,}14 \times 10^4$	43,04	32,26	$4{,}98 \times 10^6$	$8{,}39 \times 10^3$

Value: p50 cfu/g

Regarding WGA in ≤ 30 vs > 30 we observed:

- Bifidobacterial colonisation is delayed at birth ($2{,}35 \times 10^4$ vs $6{,}02 \times 10^4$ cfu/g; p = 0,09) and at one week birth age ($3{,}98 \times 10^4$ vs $1{,}49 \times 10^6$ cfu/g; p = 0,007).
- Higher numbers of E. coli from the first sample ($4{,}37 \times 10^3$ vs $9{,}07 \times 10^2$ cfu/g; $1{,}55 \times 10^4$ vs $2{,}93 \times 10^3$ cfu/g; $2{,}94 \times 10^4$ vs $9{,}69 \times 10^3$ cfu/g), although no significant statistically differences were detected.

Conclusions The number of *Bifidobacterium* and *Lactobacillus* in faecal samples is higher than the content in *Bacteroides*, *Clostridium* and *E.coli*. The colonisation process of studied bacteria is delayed in prematures born at lower WGA, except for *E. coli*.

PS-302 HUMAN CATHELICIDIN ANTIMICROBIAL PEPTIDE LL37 INFLUENCES STAPHYLOCOCCUS EPIDERMIDIS´ BIOFILM-ASSOCIATED GENE-EXPRESSION AND BIOFILM MASS ON A MEDICAL DEVISE SURFACE

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