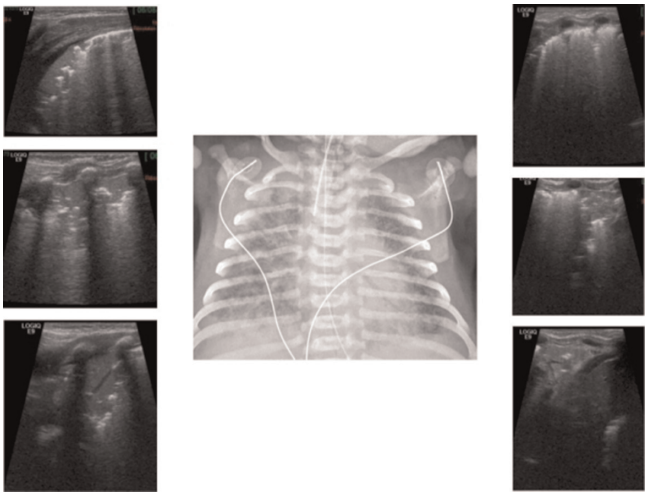

Abstract PO-0774 Figure 1

Background and aims Meconium aspiration syndrome (MAS) is a rare and life-threatening neonatal lung injury induced by meconium in the lung and airways. Lung ultrasound (LUS) is a quick, easy and cheap imaging technique that is increasingly used in critical care settings. Specific LUS findings have been described for some types of neonatal lung injury, but no formal data exists on ultrasound imaging of MAS. We here describe ultrasound findings in MAS.
Methods Five patients with MAS of variable severity were examined by LUS during the first hours of life, using either a microconvex 7,5 MHz, or a linear 12–18 MHz probe. Chest X-rays were used as reference.
Results A range of unevenly distributed dynamic signs was observed in five neonates with MAS (LUS dynamic video recordings will be shown). The following signs were seen in all cases: 1) B-pattern (interstitial) coalescent or sparse; 2) consolidations; 3) atelectasis; 4) bronchograms. No pattern was observed for distribution of signs in lung areas. The signs in the same lung area varied with time, reflecting the changing auscultation patterns. In our opinion, this is due to the changing localisation of meconium and the displacement or dissolution of meconium plugs. LUS images corresponded well with X-ray findings.
Conclusions We provide the first formal description of LUS findings in neonates with MAS. LUS seems to be a useful and promising tool in the diagnosis and management of MAS, providing real-time bedside imaging, with the additional potential benefit of limiting radiation exposure in sick neonates.

PO-0775 RESPIRATORY MORBIDITIES IN VERY LOW BIRTH WEIGHT INFANTS IN A TERTIARY LEVEL HOSPITAL, SAUDI ARABIA

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Background and aims The improvement of perinatal care has led to significant reduction in perinatal mortality. In our region, there is limited data about prematurity-related outcomes. Therefore, we designed this study to report the in-hospital respiratory morbidities and interventions in VLBWI.
Methods This is a retrospective study of all inborns (Prince Sultan Military Medical City (2004–2012), Riyadh-Saudi Arabia) with a birth weight (b.wt) of <1500 g and gestational age (GA) <34 wks, with no major anomaly. In-hospital respiratory morbidities and interventions were reported. Chronic lung disease (CLD) was defined as requirement of O_2 at 36 wks post-conception.
Results 1262 were included (GA: 28 ± 3 wks, b.wt: 1016 ± 298 g, median length of stay (IQR) was 48d (30–74), survival: 83% and exposure to any antenatal steroid: 79%). Respiratory distress syndrome (RDS), CLD and pneumothorax were diagnosed in 87, 16.3 and 5.9%, respectively. Surfactant, indomethacin and post-natal dexamethasone were used in 67, 23 and 7%, respectively. Surgical ligation of PDA was required in 3% and iNO was used in 9%. The median days on mechanical ventilation, CPAP and O_2 were 2 (0–14),5 (1–21) and 6 (1–36). Males were more likely to have worse RDS, pulmonary haemorrhage and also required longer days on O_2 and received more surfactant (all $p < 0.05$).
Conclusions The findings of this study suggest that our population is comparable to that reported in the literature and males are at higher risk. These data would set a baseline for further clinical trials and quality improvement projects in our region.

PO-0776 WITHDRAWN

Nephrology

PO-0777 THE BARTTER SYNDROME IN CHILDREN

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Abstract Bartter syndrome (BS) tubulopathy with autosomal recessive (AR) type of genetic inheritance, manifested hypokalemia, metabolic alkalosis, hyperreninemia, hyperplasia juxtaglomerular apparatus (JGA), hyperaldosteronism, in some patients, hypomagnesemia. Classification: primary, congenital, genetically based, secondary in the structure of other family kidney disease.
Objective Explore catamnesis of 5 children to identify the course and treatment of BS.
Methods Catamnestic, clinical and laboratory, molecular genetic methods.
Results Of the 5 patients observed in 3 diagnosed primary, genetically determined BS, have 2 secondary BS. Main manifestations of BS with neonatal age: vomiting, diarrhoea, polyuria, polydipsia, signs of dehydration, with infants: hypocalcemic convulsions, paresis hypokalemic. In 3 children with AR Bartter syndrome aged 1–5 years observed: polyuria, polydipsia, growth retardation and psychomotor development, uncompensated metabolic alkalosis, hypochloremia, hypocalcemia, hyponatremia, acidaminuria, increased excretion of K, Na, Cl in urine, nephrocalcinosis, calciuria, hypokalemia (from 2.2–3.3 mmol/l), hyperprostaglandin-E-emia. Genetic testing of 1 type BS found a replacement gene with 3287 C > T(r. Thr1096 IIe) in the heterozygous state. Children with secondary forms, aged 3–11 years, BS manifested on the background of pheochromocytoma without dysfunction the decrease in glomerular filtration rate. In a result of therapy with indomethacin, drugs potassium all patients had elevated potassium in serum, corrected metabolic alkalosis.
Conclusions Bartter syndrome – is a rare tubulopathy. The necessary therapy with nonsteroidal anti-inflammatory drugs (indometacin, celecoxib) drugs potassium prevents the development of complications.