Abstract PO-0771 Table 1

	Before surfactant treatment			After surfactant treatment		
	Compliance ml/cm H ₂ O/kg	Resistance cm H ₂ O/L/s	C ₂₀ /C	Compliance ml/cm H ₂ O/kg	Resistance cm H ₂ O/L/s	C ₂₀ /C
Beractant n=5	0,28±0,13	483±101	1,3±1,2	1,33±1.1	322±107	1,19±1
Poractant alfa n=5	0,35±0,17	498±210	2,8±1,7	0,5±0,29	432±165	2,6±0,87

relationship between initial lung mechanics and occurrence of bronchopulmonary dysplasia (BPD).

Method Preterm infants who were

Results 10 premature infants were studied. Mean gestational age was 28.4 ± 1.6 (26–31) weeks and mean birth weight was 955 ± 155 (710–1250) g. Five infants received beractant and the other five received poractantalpha. The alteration of lung mechanics after surfactant administration was summarized in Table 1.

Conclusion Surfactant therapy significantly reduced the resistance and improved the lung compliance. These effects were not directly related to the type of surfactant administered.

PO-0772 EFFECTS OF CAFFEINE THERAPY ON RESPIRATORY MORBIDITIES IN VERY LOW BIRTH WEIGHT INFANTS

F. Yavanoglu Atay, D Bidev, O Bozkurt, G Kutman, FE Canpolat, SUNA Oguz, N Uras, U Dilmen. Neonatology, Zekai Tahir Burak Women Health Care Education and Research Hospital, Ankara, Turkey

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Introduction and aim Previous studies demonstrated that caffeine seems to be effective for reducing the risk of bronchopulmonary dysplasia and for decreasing the need for reintubation. We aimed to evaluate the effects of caffeine therapy on respiratory morbidities in very low birth weights infants.

Method We aimed to review patient records for a 5 year period (2008–2013) retrospectively. Infants whose birth weight <1250 gr and gestational age <32 weeks were studied. Data collected for analysis included patient demographics, respiratory morbidities and mortality.

Results A total of 290 patient records were analysed, of them 148 infants were treated with caffeine (CT+), 142 infant did not receive caffeine therapy (CT-). Gestational ages (27.9 ± 2 vs 27.7 ± 2.7 weeks) and birth weights (967 ± 186 vs 980 ± 196 g) were similar between groups ($p > 0.05$). Basic characteristics and risk factors were similar between groups. CPAP failure was significantly lower in CT+ group (25,4% vs 41,1%, $p = 0.02$) Oxygen requirement on 36 weeks (13,2% vs 7,4% in CT+ and CT- groups respectively) were similar between groups ($p > 0.05$). Mortality rate (18,9% vs 54%), BPD or death (28,6% vs 57%) and duration of mechanical ventilation (2.9 ± 5 vs 4.8 ± 7.7 days) were significantly lower in CT+ group ($p < 0.01$).

Conclusion We demonstrated that caffeine therapy significantly reduced the mortality rate, death or BPD and CPAP failure VLBW infant yet no significant difference was observed on therapies of BPD. This is an ongoing study and maybe the final analysis will yield different results.

PO-0773 LUNG ULTRASOUND FINDINGS IN CONGENITAL LUNG MALFORMATIONS

¹N Yousef, ¹M Mokhtari, ²S Franchi-Abella, ¹P Tissieres, ³D De Luca. ¹Neonatal and Pediatric Intensive Care Unit – FAME Dept, South Paris University Hospitals – Bichêtre Medical Centre, Paris, France; ²Department of Pediatric Radiology, South Paris University Hospitals – Bichêtre Medical Centre, Paris, France; ³Division of Pediatrics and Neonatal Critical Care – FAME Dept, South Paris University Hospitals “A. Beclère” Medical Center, Paris, France

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Background and aims Congenital cystic adenomatoid malformation (CCAM) is a group of rare congenital malformations of the lung and airways, with varying clinical pictures. 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 exist on pulmonary malformations. We here describe ultrasound findings in CCAM.

Methods Three patients with a prenatal diagnosis of CCAM and presenting with neonatal respiratory distress were examined by LUS, during the first week of life, using a linear 12–18 MHz, or a micro-convex 7,5 MHz probe. Chest CT-scans were used as reference.

Results LUS findings were variable and corresponded well with CT-scan images (LUS dynamic video recordings will be shown). One patient had a single large hypoechogenic cystic lesion. Two patients had several hypoechogenic lesions, of various size and form, surrounded by consolidated lung tissue. All patients showed normal lung patterns in the areas adjacent to the CCAM. LUS did not permit the exact localization of lung lesions.

Abstract PO-0773 Figure 1

Conclusions We provide the first formal description of LUS findings in neonates with CCAM. Further studies are necessary to define the place of LUS in the management of CCAM. LUS could be a useful tool in screening asymptomatic patients and determining optimal timing for CT-scan and surgery, thereby limiting radiation exposure.

PO-0774 LUNG ULTRASOUND FINDINGS IN MECONIUM ASPIRATION SYNDROME

¹N Yousef, ²M Piastra, ³R Brat, ⁴P Manzoni, ¹M Mokhtari, ¹P Tissieres, ³D De Luca. ¹Neonatal and Pediatric Intensive Care Unit – FAME Department, South Paris University Hospitals – Bichêtre Medical Centre, Paris, France; ²Pediatric Intensive Care Unit – Institute of Anesthesiology and Critical Care, University Hospital “A. Gemelli” - Catholic University of the Sacred Heart, Rome, Italy; ³Division of Pediatrics and Neonatal Critical Care – FAME Department, South Paris University Hospitals - “A. Beclère” Medical Center, Paris, France; ⁴Neonatal Intensive Care Unit, OISRM S. Anna, Turin, Italy

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