hematemesis/occult gastrointestinal hemorrhages which has increased the incidence of haemoptysis in our study at 30,95%.

Conclusion: Although IPH is a pulmonary disease, the respiratory syndrome is present on a second level, anemia being the primary symptom in our cases.

1312

PULMONARY INFECTIONS IN CHILDREN WITH CYSTIC FIBROSIS

D.T. Qosaj

Pulmonology Department, University Clinical Centre of Kosova, Prishtina, Albania

Introduction: Cystic Fibrosis (CF) is the most common inherited life shortening disease among white population but also appears among other ethnic groups and races. CF is autosome recessive disease and in Europe the most frequent mutation is delta F508. Disease is polysystemic and involves in first place respiratory system, gastrointestinal system, failure to thrive and other signs.

Aim of study: Presentation of cases treated in our ward, some clinical features focusing in most frequent infections which we found in our patients during period of 2000-2008.

Material and methods: For the study we used patients records, outpatients records, hematologic laboratory findings, microbiology analyses, chest X ray.

Results: We treat 32 children with diagnosis as CF and 19 (59.3%) are female and 13 (40.6%) are male. Under 1 year of age are 8 children (25%), from 1 till 5 years of age are 18 children (56.2%), from 5 till 10 years are 4 children (12.5%) and above 10 years 2 children (0.62%). Our diagnosis was based in clinical features, sweat test and genetic mutation. In 6 children we had a positive family history (18%). Frequency of their admission is as follows: 10 children (31.2%) were admitted once a year, 9 children (28.1%) we admitted 2 or 3 times a year and 16 children (50%) were admitted more than three times during one year. Infections that we isolated in our children are as follows: at 3 children (9.3%) was isolated *Streptococcus pneumoniae*, at 5 children (15.6%) *Escheria coli*, at 3 children (9.3%): *Klebsiella*, at 4 children (12.5%): *Staphylococcus aureus*, at 2 children (6.2%): *Pseudomonas aeruginosa*, at 2 children (6.2%): *Citrobacter*, 1 child (3.1%) had

Branhamella. At other children the culture was sterile.

Conclusion: Presented cases realize that the infection is the common reason for exacerbation and admission in hospital. The agents are common as we found in literature.

Keywords: Cystic fibrosis, infection

1313

ENDOTRACHEAL TUBE SIZE AND PLACEMENT IN NEONATES

J.E. Tan¹, A. Foran², S. Ryan³

¹Paediatrics-Neonates, ²Neonatology, ³Radiology, Rotunda Maternity Hospital, Dublin, Ireland

Introduction: In neonates, accurate endotracheal tube (ET) size and placement is essential for adequate ventilation and surfactant delivery. Malposition of ET may cause asymmetrical surfactant distribution, pneumothorax, tracheal oesophageal perforation and aspiration.

Objectives: To assess: 1) ET placement 2) knowledge of correct ET placement and size in neonates.

Methods:

1. Chest X-rays (CXRs) of intubated infants were reviewed and verified by consultant radiologist Jan-Mar 2010.
2. Questionnaires were distributed to consultants, NCHDs and NICU nurses in Rotunda and nationally during a week of duty in National Neonatal Transport Service. When 2 answers were selected, both smaller ET size and shorter ET length was chosen.

Results:

1. In total 203 CXRs were reviewed. 70% showed ETs were placed in the upper and middle 3rd of the trachea. Only 4% ETs were placed in the right main bronchus. No major complications noted.
2. In total 51 questionnaires were completed, 31 from tertiary unit and 20 from peripheral. From tertiary hospital, all consultants answered correctly, 10/13 NCHDs and 8/14 NICU nurses answered correctly. From the peripheral hospitals, all consultants answered correctly, 6/15 NCHDs and 1/3 NIU nurses answered correctly. The variance

of answers were found to fall under 3 groups : 500g-1000g, 1500g-2000g & 32-34wks.

Conclusions:

1. Comparing the ET placement in CXRs between gestation and weight, this study showed that gestation was more accurate.
2. The knowledge of correct ET size & placement needs improvement.
3. We suggest table of ET size and length against gestation and weight should be easily accessible.

1314

CONGENITAL DIAPHRAGMATIC HERNIA ASSOCIATED WITH ESOPHAGEAL ATRESIA: A CHALLENGING COMBINATION FOR THE NEONATOLOGIST AND THE PEDIATRIC SURGEON

S. Apostolidou¹, K. Reinshagen², K. Zahn², S. Hien¹, L.M. Wessel², T. Schaible¹

¹Neonatology, ²Pediatric Surgery, University Mannheim, Mannheim, Germany

Introduction: Congenital diaphragmatic hernia (CDH) together with esophageal atresia (EA) are associated with different malformations in up to 71%. In epidemiologic studies the prevalence of CDH was 0.13 , of EA 0.27, of both combined 0.005 per 1000 births.

Patients: In our single institution center for CDH we treated 425 CDH patients. Associated malformations occurred in 39.5%, left sided hernia in 81.6%, right sided hernia in 16.1%, both sided in 2.3% of all patients. 5 patients suffered from EA together with CDH.

Results: Of the patients treated since 1996 we had 5 patients with CDH and EA. One patient had a trisomy 18, one patient had severe lung hypoplasia, both died soon after birth. Chronic lung disease led to death at the age of three years in one patient. Two patients survived. Ventilation and perfusion difficulties of hypoplastic lungs occurred in every patient due to the tracheoesophageal fistula. In all patients except the trisomy 18 patient we closed the tracheoesophageal fistula quickly after birth. We preferred temporary banding of the distal esophagus and early closure of the diaphragmatic defect from an abdominal access. In one case a severe hypoxemia

occurred directly after operation. We decided to withdraw an ECMO rescue treatment. Esophageal atresia was reconstructed by thoracotomy in a later stage.

Conclusion: The combination of EA and CDH is a challenging interdisciplinary problem. The high mortality is due to the combination of these malformations. Rescue treatment by ECMO has to be discussed because there exists a high risk of later pulmonary morbidity.

1315

LUNG FUNCTION IN HYPEROXIA EXPERIMENTAL MODEL OF NEWBORN RATS

P. Chimenti Camacho¹, E. Maderuelo Rodríguez¹, E. Sanz López¹, J.M. Zubeldia Ortuño², M. Sánchez Luna¹

¹Neonatology, ²Allergy, HGU Gregorio Marañón, Madrid, Spain

Background and aims: Study of lung function in an experimental model of bronchopulmonary dysplasia (BPD) induced by hyperoxia in newborn rats.

Methods: The subjects of this study were two litters of Sprague-Dawley rats. Group C (Control): exposure to room air. Group H (Hyperoxia): exposure to 60% of Oxygen from birth and during 14 days. The lung function tests were performed on day 15. Respiratory functional evaluation through a system of total body plethysmography (Buxco Electronics, Troy, NY, USA): non-invasive analysis system, with the animal conscious and free, housed in a sealed container. Changes of pressure and volume in the cabin due to respiratory movements are monitored and used to calculate ventilatory parameters using a computer application.

Results: Two litters with 14 offspring each were studied. Pulmonary function tests showed a decrease in tidal volume (H: 0.098 ml, C: 0.125 ml, p 0,000) with offsetting increase in respiratory rate (H: 310 rpm; C: 266 rpm; p 0,03) without differences in minute volume (H: 29.92 ml / min, C: 32.75 ml / min; p 0,186). The index of airway obstruction (Penh) is altered in the litter exposed to oxygen (p 0, 026).

Conclusions:

- Validation of an experimental model of hyperoxia (DBP) in newborn rats.