

**Background** CDH was the most common cause of death in newborn group of surgical patients in our hospital. Statistics significantly changed after introducing the delayed approach of surgical correction.

**Objectives** Study objectives are to assess the effectiveness of delayed surgical correction in patients with CDH.

**Methods** We compared Two groups of patients with CDH, who underwent the surgery. In the first group, since 1978, great majority of patients were operated in first 24–48 h of life. In second group, since 2007, time of surgical intervention was approximately at t 98 h after birth. In 98%, in both groups, diaphragmatic defect was primarily closed. Only in 2% of cases patch or silo was used. None extra corporal membrane oxygenation or preoperative NO was never used.

**Conclusion** Delayed surgical correction – 96 h after birth, after initial management and pulmonary support, improves the outcome in patients with CDH, compared with surgical intervention in first 24–48 h of life.

#### PS-295 CLINICAL EXPERIENCE IN APPLICATION OF THORACOSCOPY IN TREATMENT OF CONGENITAL DIAPHRAGMATIC HERNIA IN NEWBORNS

<sup>1</sup>A Svirsky, <sup>1</sup>V Averin, <sup>2</sup>A Mahlin, <sup>3</sup>A Svirskaya. <sup>1</sup>Pediatric Surgery, Belarusian State Medical University, Minsk, Belarus; <sup>2</sup>Pediatric Surgery, Pediatric Surgery Centre, Minsk, Belarus; <sup>3</sup>NICU, Republican Scientific and Practical Centre "Mother and Child", Minsk, Belarus

10.1136/archdischild-2014-307384.593

**Background and aims** The treatment of newborns with congenital diaphragmatic hernia (CDH) is still actual problem. Changing management tactics has led to an improvement in results last decade. The mini-invasive surgical procedure was developed and introduced in clinic adding new abilities.

The goal is to determine the effectiveness of thoracoscopy in treatment of CDH in newborns.

**Methods** The retrospective analysis of treatment of 127 infants with CDH during the period from 1993 to 2013 in Paediatric Surgery Centre of Minsk, Belarus was conducted. From 1993 to 2006, the newborns were operated on 1–2 day admission. Traditional methods laparotomy and thoracotomy applied in 59 of 65 children in this group, 16 patients died. Postoperative lethality was 27.1%, the overall mortality rate 30.7%. Postoperative complications have demanded 18 (30.5%) reoperations in 13 patients, including 4 hernias relapse. From January 2007 operation are produced only in children with stable condition on the 6–8 day of life. The main method from December 2009 is thoracoscopic plastic. The 62 children have been treated. Operations were performed in 54 children: 16 children by traditional methods and 38 completed mini-invasive intervention.

**Results** Four patients (7.4%) died postoperatively and overall mortality amounted to 12.9%. Reoperations took place in 10 patients (18.6%), 5 children have recurrent hernia after thoracoscopic plastic. One child relapse marked twice in 6 months. All children repeatedly operated with thoracoscopy, in four cases patches were applied. No complications were revealed postoperatively.

**Conclusion** Thoracoscopy for the treatment of CDH is effective method.

#### PS-296 HIRSCHSPRUNG'S DISEASE PRESENTING IN THE NEONATAL PERIOD: A REGIONAL CENTRE EXPERIENCE

<sup>1</sup>R Zogopoulou, <sup>1</sup>S Kumar, <sup>2</sup>A Mudher, <sup>3</sup>M Agrawal, <sup>1</sup>A Kapetanakis. <sup>1</sup>Neonatal Medicine, Evelina London Children's Hospital, London, UK; <sup>2</sup>Histopathology, St Thomas Hospital, London, UK; <sup>3</sup>Paediatric Surgery, Evelina London Children's Hospital, London, UK

10.1136/archdischild-2014-307384.594

**Background** Hirschsprung Disease (HD) is characterised by the absence of ganglion cells in the distal bowel commonly presents in neonatal period with a suggestive history. However a rectal biopsy (RB) is required to confirm the diagnosis. The reported incidence in the UK is 1:5000.

**Aim** To describe the clinical characteristics of neonates with HD presenting to a regional neonatal surgical centre.

**Methods** Retrospective review of clinical records over a 2 year period (2012–2013).

**Results** 15/51 infants evaluated had a positive rectal biopsy (RB) 4 infants were inborn (Inborn Incidence 1/3000), 11 were referred from 7 other London hospitals.

Initial presenting complaint in the HD (non HD) groups was: Abdominal distention 93% (95%) Delayed passage of meconium 78.5%, (69.5%) Bilious vomiting 57% (82%), Poor feeding 7% (35%).

Gestation age (mean, (range)) was 39 (37–41). Infants were referred on d<sup>3</sup> (1–10) RB was performed on day 9 (2–37), 85% were initially managed with rectal washouts and discharged home. 2 infants required an operation in the neonatal period. The remainder underwent surgical procedure on day 159 (61–521).

**Conclusion** HD needs to be considered and a RB performed in infants with consistent history and examination Especially abdominal distention or history of delayed passage of meconium. The incidence of HD may be higher in some populations and this should be evaluated further.

#### PS-297 IMPROVING QUALITY OF CARE IN CONGENITAL DIAPHRAGMATIC HERNIA (CDH)

<sup>1</sup>A Awoseyila, <sup>2</sup>V Baral. <sup>1</sup>Neonatology, Southampton University Hospital Trust, Southampton, UK; <sup>2</sup>Neonatology, Singapore General Hospital, Singapore 169856, Singapore

10.1136/archdischild-2014-307384.595

**Aims** An observation of a high mortality over 12 months (83.3% in 2012) amongst infants with CDH prompted a retrospective review of management to evaluate outcomes over the past 5 years and compare mortality rates with the previous 5 year block. Care pathways were reviewed to see if variations in management existed within the team.

**Method** Data was collected retrospectively from case records as well as from foetal medicine and Neonatal Databases (January 2007–December 2012).

**Results** 53 cases of antenatal CDH were identified. Termination of pregnancy was performed in 15/53 (28.3%) and intrauterine death occurred in 1 case. 2 cases were excluded due to incomplete data (including 1 live birth). There were 36/53 live births (68%). 11/35 (31.4%) had an associated major anomaly. Survival to discharge rate for isolated CDH was 14/24 (58.3%) compared with 3/11 (27.3%) in the anomaly group. Overall survival to discharge rate of live births was 17/36 (47.2%). 2 infants received