

# JOINT EVENT



22<sup>nd</sup> Edition of International Conference on  
**Neonatology and Perinatology**

&

3<sup>rd</sup> International Conference on  
**Pediatrics and Pediatric Surgery**

May 07-08, 2018 Frankfurt, Germany

# Scientific Tracks & Abstracts Day 1

*Neonatology & Pediatric Surgery 2018*

## Neonatology | Perinatology | Pediatric Surgery | Neonatal Research | Pediatrics

**Session Chair**  
**Ryszard Lauterbach**  
Jagiellonian University, Poland

**Session Co-Chair**  
**Michael Stark**  
New European Surgical Academy, Germany

### Session Introduction

- Title: Neonatal thermal stress: Uncovering the hidden cause of death in extremely low-birthweight neonates in low and middle income countries**  
**Hippolite O Amadi**, Imperial College London, UK
- Title: The evidence of congenital malformations and Down's syndrome after Chernobyl: who cares for radiation protection of the unborn?**  
**Inge Schmitz Feuerhake and Sebastian Pflugbeil**, Society for Radiation Protection, Germany
- Title: Prevention of premature birth – the Thuringia screening campaign 2017**  
**Udo B Hoyme**, Ilm-Kreis-Kliniken, Germany
- Title: Vulnerable pregnant women in Antwerp**  
**Luka Van Leugenhaege**, Artesis Plantijn University College, Belgium
- Title: Evaluation of a modification of the nutrition policy on the frequency of extra-uterine growth retardation in premature newborns between 2012 and 2014**  
**Pages Anne Sophie**, Centre Hospitalier Public du Cotentin, France
- Title: Therapeutic hypothermia for perinatal asphyxia at a tertiary care neonatal unit in South India: Our center experience**  
**Sowjanya S V N S**, Mehta Multispecialty Hospitals, India
- Title: Effects of deformational plagiocephaly during the first 12 months on the psychomotor development of prematurely born infants**  
**Marie Fabre Grenet**, University hospital in Marseilles, France
- Title: Maternal and Neonatal factors predicting sepsis in neonates on the septic pathway**  
**Christy Varghese**, The University of Manchester, UK
- Title: Rehabilitation of children with microtia**  
**Murod M Jafarov**, Tashkent Pediatric Medical Institute, Uzbekistan
- Title: Perforating injury of abdomen, thorax and neck in a child with a bamboo stick**  
**Shailesh Adhikary**, BP Koirala Institute of Health Sciences, Nepal
- Title: To determine validity of ultrasound in predicting acute appendicitis among children keeping histopathology as gold standard**  
**Ubaidullah khan**, Alhada Armed forces hospital, Saudi Arabia

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**Neonatal thermal stress: uncovering the hidden cause of death in extremely low-birthweight neonates in low and middle income countries**

**Hippolite O Amadi**

Imperial College London, UK

Successive demographic reports of UNICEF and WHO, since 2007, shows that Nigeria's early neonatal deaths has remained high, at 79%. There was no significant improvement all through the years of MDG as almost 50% of deaths before age of five are currently neonatal. Neonatal mortality rate (NNMR) increases sharply with decreasing birthweight and postnatal age; hence, there is little chance of survival for over 90% of extremely low birthweight (ELBW) neonates at most Nigerian newborn centres. We preliminarily carried out a nationwide investigation and confirmed consistency in excessive long periods of time before most deceased neonates attained thermal stability within acceptable physiological range of 36.5°C–37.4°C. We investigated high climatic ambient temperatures and found adverse correlation with neonatal thermal morbidity. We concluded that such overpowering physiological thermal deficiencies might be responsible for mortalities within first week of life; hence the need for innovation of devices and protocols that could reverse this. We devised the recycled incubator technology to create affordable alternative for incubator intervention. We define the etiology of climate-induced neonatal evening-fever syndrome (EFS) and synthesised a nursery-building pattern that lowers climatic harsh impact on neonates. We innovated the Handy-approach and initial-setpoint-algorithm temperature protocols that enabled patient-specific interactive technique for quick attainment of neonatal normotherm. Comparative studies of the outcome of these innovations against facility-based national averages showed, among others: improved availability and sustainability of functional incubators (average: 18 systems vs. 3); early mortality of ELBW reduced (average: <1% vs. 80%); overall facility-based NNMR reduced (average: 31/1000 vs. 245/1000).

**Biography**

Hippolite O Amadi medical career has lasted three decades, since 1987, cutting across engineering-in-healthcare, orthopaedics and neonatology research. His current global prowess in neonatal innovations has been greatly influenced by his academic exploits, both as a student and later Professor at Imperial College London, UK. His current practice and research-groups span the entire regions of Nigeria, covering 25 tertiary hospitals over two decades; enabling him an unprecedented access to evidence based data on a national representative scale. He has since been a regular in the WHO and World Bank list of global thinkers on African perspective of climate-change impact on neonatal health.

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**The evidence of congenital malformations and Down's syndrome after Chernobyl: who cares for radiation protection of the unborn?**

**Inge Schmitz Feuerhake and Sebastian Pflugbeil**  
Society for Radiation Protection, Germany

In former times of radiation research the genetically significant dose was regarded as the main measure for protection in diagnostic radiology, because the hereditary effects were considered to be the most dangerous sequelae and also the effects in embryos and fetuses. There was also establishment of the 10 days rule in order to exclude exposure in the period of possible pregnancy. The International Commission on Radiological Protection (ICRP), however, who is the leading expert board for radiation protection in the developed countries, claims that the genetic radiation risk is nearly negligible and radiation-induced effects after exposure in utero will not occur below doses of 100 mSv. They refer to reportedly absent effects in the acute exposed Japanese A-bomb survivors and leave out the conditions in cases of low dose chronic exposure as for example by radioactive contaminations. We review findings about increases of stillbirths, congenital malformations and Down's syndrome in a variety of European regions affected by Chernobyl fallout. They confirm former and later observations after occupational exposure and diagnostic x-rays, which show high radiation risks for the descendants of exposed parents. Our conclusion is that medical diagnostic radiation exposure in Germany has contributed to the rising rates of congenital malformations in this country. Minimization of gonadal doses must become again a central aim in radiation diagnostics for children and patients in reproductive ages. Current dose limits for occupational exposure and in pregnancy must be lowered considerably.

**Biography**

Inge Schmitz Feuerhake has completed her Doctorate in Physics in 1966 at the University of Hannover, Germany. She did research in Nuclear Medicine for seven years at the Medical University of Hannover where she also was the Manager of a Nuclear Reactor for research. Since 1973, she is Professor of Medical Physics at the University of Bremen, Germany, now in the status of retirement. She works in the field of Radiation Dosimetry and Radiation Effects. She has published more than 50 papers in reputed journals.

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### Prevention of premature birth – the Thuringia screening campaign 2017

**Udo B Hoyme**

Ilm-Kreis-Kliniken, Germany

In the initial so-called Erfurt prematurity trial almost 20 years ago, based on a simple screening strategy with intravaginal pH self-measurements (cut off pH>4.5), adequate physician based medical diagnosis and immediate antimicrobial therapy of genital infection, 0.3% of the neonates <32+0 weeks were seen in an intervention group vs. 3.3% (p<0.01, n=2722) in the control group. In the larger state wide Thuringia campaign limited to the year 2000 the figures were 0.94% vs. 1.36% (p<0.01, n=16,276). The rate of newborns <1000 g was reduced to 0.38%, the lowest incidence ever seen in any of the German states, however, after discontinuation of the campaign for several reasons the preterm birth rates mounted in the state to the same level as prior to the program. As long as we do not have alternative safe, simple and cheap methods, intravaginal pH-measurement is the best option to detect women at risk and in need for specific diagnostic assessment followed by efficient medical treatment, e.g. lactobacilli, e.g. in case of bacterial vaginosis preferably by clindamycin before week 23. The practical cheap regime should be generally implicated as an indicated step of optimizing and rationalizing the national health care system. Good news for at least 18,000 pregnant women annually: The government of our state of Thuringia has decided in 2016 to re-establish a pH self-care screening program similar to that of the year 2000. Beginning at zero almost one year after initiation >80% of pregnant women in the state have their vaginal pH measured in December 2017. First pregnancy outcome parameters will be available by mid of 2018.

#### Biography

Udo B Hoyme has graduated from University of Hamburg, Germany in 1973. In 1993 he became the Chairman of the Department of Obstetrics and Gynaecology, Medical School Erfurt and later HELIOS Kliniken. In 2013, he retired as Head of the Department of Obstetrics and Gynaecology, St. Georg-Klinikum Eisenach. He is working as Senior Consultant in Ilm-Kreis-Kliniken, Arnstadt, Germany. He has published more than 300 papers and he is an editor and reviewer of several international journals.

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### **Vulnerable pregnant women in Antwerp**

**Luka Van Leugenhaege**

Artesis Plantijn University College, Belgium

Vulnerability among patients has always been difficult to define. Especially during pregnancy, vulnerability needs extra attention and care because of the impact and adverse effects on mother and child. As a healthcare professional, it's imperative to gain insight into obvious and less obvious characteristics of vulnerability during pregnancy. An interdisciplinary team of midwives, social workers and nurses mapped the characteristics of vulnerability focussing on pregnancy. They developed a screening tool as for healthcare workers to determine whether a patient is in need of extra individualised care. The next step in this research project is to develop a perinatal trajectory to provide adequate care for their specific medical, psychological and social needs. This abstract offers results of a pilotstudy conducted in Antwerp to test and adjust the screening tool and an overview of different trajectories that exist to provide care for women in this situation.

#### **Biography**

Luka Van Leugenhaege has completed her Bachelor's degree in Midwifery in 2012 from the University College Artesis Antwerp, Belgium. She worked as a Midwife at the Fertility Clinic of GZA St. Augustinus Wilrijk. She graduated as a Master of Science in Nursing and Midwifery in 2014. In September 2016, she got the opportunity to teach and conduct research at the Artesis Plantijn University College, Antwerp. Alongside she started working as an Assistant at the University of Antwerp. On behalf of the University she started participating in a local network to help poor pregnant women get the medical and psychosocial help they need, called PANZA.

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**Evaluation of a modification of the nutrition policy on the frequency of extra-uterine growth retardation in premature newborns between 2012 and 2014**

**Pages Anne Sophie**

Centre Hospitalier Public du Cotentin, France

**Introduction:** Extra uterine growth restriction (EUGR) is associated with long term effects on growth and neurodevelopmental outcomes in preterm infants. The objective of our study was to evaluate the effects of a change in nutritional policy on the postnatal growth of premature infants.

**Method:** Prospective observational study carried out between 01/01/14 and 31/12/14 in all newborns less than 33 weeks gestational age (GA) admitted at the CHU of Bordeaux after modification of the nutrition policy at the beginning of January 2014. This cohort was compared to a retrospective historical cohort of children born between 01/01/12 and 31/12/12. In the second period, the nutrient intakes received were evaluated and compared with the recent recommendations (ESPGHAN 2005, 2010, nutritional care of preterm infant). The impact of EUGR was compared between the two populations.

**Results:** 144 children were included, among which 66 in the 2012 cohort and 78 in the 2014 cohort. Their initial characteristics are similar. The moderate EUGR rate is 86.4% in 2012 vs. 39.7% in 2014 and the severe EUGR rate is 21.2% in 2012 vs. 5.1% in 2014. In 2014, half of the newborns had an energy deficit and 2/3 had a protein deficit at the end of the 6 weeks of hospitalization.

**Conclusion:** Our study shows that the optimization of the nutrition policy can reduce the incidence of EUGR.

**Biography**

Pages Anne Sophie has completed her MD in 2015 from University of Bordeaux. She is a Neonatologist at the Hospital of Cherbourg in Normandy, France. She has published two articles in French journals.

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## Effects of deformational plagiocephaly during the first 12 months on the psychomotor development of prematurely born infants

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**Aims:** The link between deformational plagiocephaly and psychomotor development is a recurrent question in medical publications. Main publications are about term infants but there is a lack of data about impact of deformational plagiocephaly on long term neurodevelopment of premature infants. We try to establish a possible relation between deformational plagiocephaly during the first year of life and the psychomotor score at 4 years in the prematurely born infants. Other risk factors potentially impacting the psychomotor score have been studied.

**Material & Methods:** A retrospective study of the files of the children followed by the health network “Naitre et Devenir Région PACA Ouest Corse Sud” and included in the data base has permitted to select a cohort of 594 prematurely born infants under 33 weeks of gestational age. Those children have been developmentally evaluated during the first year of life and at 4 years by the EVAL Mater test. The “Naitre et Devenir” network is following up the prematurely born under 33 weeks of gestation infants of the West Provence Alpes Côte d’Azur and South Corsica from discharge to 7 years. 170 specially trained pediatricians are developmentally following the infants at term, 3, 6, 9, 12, 18 and 24 months of corrected age and 3, 4, 5, 6 and 7 years. Data are collected in a specially designed data base.

**Results:** There is no significative link between deformational plagiocephaly during the first year of age and a pathological psychomotor score at age 4, but some risk factors have been put in evidence: being a boy, born under 28 weeks of gestational age, weighted at birth under 1000 g, having a neuromotor score of Latal et Ferriero equal or more than 2 at 3 months of corrected age and in a lesser manner having a prescription of physiotherapy during the first year.

**Conclusion:** The researches on deformational plagiocephaly in the full term infant are suggesting a link between deformational plagiocephaly and developmental delay predominantly on the motor side, with an increase rate of special needs services at school age. Now the asking question is whether the deformational plagiocephaly is the origin of the delay or an early sign of special brain condition with an early motor delay in the full term born. Our results suggest that deformational plagiocephaly in the prematurely born infant may not be linked to neurodevelopmental delay but just due to a long time spent in supine position because of the early birth associated to physiological hypotonia and axial extension. Other risk factors like being a boy, born under 28 weeks of gestation, weighing less than 1000 g, a neuromotor score of Latal and Ferriero more than 2 at 3 months of corrected age and having a prescription of physiotherapy during the first year of life are strongly connected to a delayed psychomotor development at age 4.

### Biography

Marie Fabre Grenet is a MD Pediatrician, AIX Marseille University France. She is the DEA of Neuropsychology CNRS Marseille France and NBAS Trainer of Brazelton Institute, Boston USA. She is involved in CAMSP Nord and CHU Nord Marseille: prematurely born infants follow up (1997-2016) and prematurely born infants following network Naitre et Devenir PACA Ouest Corse Sud Coordination 2006-2016, Marseille 13000 France. She is the Medical Director of CAMSEP 36, Chateauroux 36000 France.

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### Maternal and neonatal factors predicting sepsis in neonates on the septic pathway

Christy Varghese

The University of Manchester, UK

**Introduction:** Early-onset neonatal sepsis is defined as infection within 72 hours of delivery within a healthy baby. There are a number of risk factors for neonatal sepsis identified. Babies with at least 2 risk factors are placed on the sepsis pathway and started on antibiotics awaiting results of investigations such as blood culture, C-reactive protein (CRP) and possible lumbar puncture. The study looked at those neonates on the sepsis pathway to identify factors that may likely predict sepsis defined in this study as a CRP of >10 mg/L.

**Material & Methods:** This was a retrospective study conducted in the northwest of England focusing on Royal Preston Hospital. The study used data from neonates who were treated for suspected sepsis within the first 72 hours post-birth. A total of 102 babies were selected using random selection and information regarding various variables was obtained. Data was collected from the Lancashire Teaching Hospital Trust (LTHTr) electronic documentation softwares. The initial analysis involved univariate and bivariate analysis. Multivariate logistic regression was also performed to understand which factors were the best predictors to assess severity of sepsis.

**Results:** There were a total of 55 (53.9%) male neonates and 47 (46.1%) female neonates. There were only 4 neonates with culture proven sepsis. Bivariate analysis showed more mature neonates are more likely to have higher CRP. Multiple regression analysis of neonatal factors found gestation age ( $p<0.0001$ ) and respiratory distress ( $p=0.0121$ ) to be the two significant variables in predicting increased CRP levels.

**Conclusion:** In conclusion, a third of neonates had high CRP. There was only one neonate with a positive blood culture that grew GBS. 22 lumbar punctures were conducted which were all negative. The study showed that neonates on the sepsis pathway are more likely to have high CRP if they showed respiratory distress. In addition to this, within the population of neonates on the pathway, neonates who are more mature are more likely to have a high CRP as a proxy for sepsis. Paradoxically, babies with prolonged ROM were less likely to have high CRP which was found to be statistically significant but clinically less significant. No other factors could accurately predict sepsis in neonates.

#### Biography

Christy Varghese is currently a 4th year Medical Student at the University of Manchester undertaking clinical placement at the Royal Preston Hospital, Preston. He was part of the Pediatric Society at the university. He undertook a 10 week research dissertation project under the guidance of Dr. Dhia Mahmood, Neonatologist at Royal Preston Hospital.

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### Rehabilitation of children with microtia

**Murod M Jafarov** and **Mirjamol M Jafarov**  
Tashkent Pediatric Medical Institute, Uzbekistan

**Purpose:** Frequency of a congenital anomaly of an ear in the European countries meets 1:6000 newborns, in the USA microtia and anotia meets at 3 of 10000 newborns, in Japan this indicate 1:4000, In the Asian countries of Pacific ocean high frequency of these figures, to 1:900 is marked. According to ENT Department of TPMI in Uzbekistan the microtia and anotia meets 1:2000 children. In the Aral Sea region the data is considerably above and has made 1:650 newborn. The purpose of this research was studying a condition of otoplasty in Uzbekistan in the past, its condition now and to find optimum methods for improvement of operative treatment of patients with congenital anomaly of ear and to present our result for reconstructive surgery of the congenital and acquired general defect of ear.

**Materials & Methods:** We surveyed more than 150 children, which were operated in the Tashkent Pediatric Medical Institute Clinics. The given operations were made during 2003-2016. If to compare the previous operations, which have been carried out till 2003, and operation now it is possible to see on significant improvements of quality of operation. But the main thing - the result did not justify expectation of patients. Tactics of operation demanded a basic change in all technique of operation.

**Results:** Postoperative care of patients also demanded a basic change. The main thing which was absent in such operations was correct care of patients. Using modern technologies, we have considerably made progress in rehabilitation of children with microtia in Uzbekistan.

**Conclusions:** Second-stage method reduces time of surgical intervention and it turns out single-stage formation framework of auricle. The framework, formation in three dimensions' gives more the best aesthetic result. We hope, that the future technologies will be more noninvasive and will give that result the patient of whom they dream, i.e. they will receive natural ear.

### Biography

Murod Jafarov has graduated from Tashkent pediatric medical Institute (TashPMI) and he passed residentship by otorhinolaryngology (TashPMI) and also plastic surgery in Yonsei University College of Medicine (Seoul, Korea). During last 10 years he passed training and as visiting professor in the Plastic surgery of Department Stanford University's Lucile Packard Children's Hospital and Plastic surgery Department of Massachusetts General Hospital of Harvard University and Plastic surgery Department of Florida University. At present he is Director of Republican Center of pediatric plastic surgery of the Clinic Tashkent Pediatric Medical Institute.

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### **Perforating injury of abdomen, thorax and neck in a child with a bamboo stick**

**Shailesh Adhikary, Saroj Rajbanshi, Anang Pangen and Shashank Sood**  
BP Koirala Institute of Health Sciences, Nepal

**Introduction:** Penetrating or perforating abdominal or chest injuries are very uncommon in the paediatric age group and are associated with a high mortality. Impalement injuries are consequence of penetration by elongated, usually fixed objects through the body.

**Case Summary:** A 10-year young child suffered from a penetrating injury to the left iliac fossa when he had fallen down from a coconut tree on to the sharp bamboo fence. The bamboo stick penetrated the abdominal wall, perforated the jejunal loops at two sites along with the fundus of stomach, the left diaphragm, upper lobe of the left lung and the bevelled end of the bamboo had exited at the neck after tearing apart the neck muscles and skin sweeping along with it few scattered pieces of jejunal tissues which were seen lying alongside. He was brought to the hospital five hours after the accident. On arrival he was in agony, dehydrated and scored 15/15 on Glasgow scale, remained haemodynamically stable, saturation of 93% with oxygen supplement. On examination a 75x5 cm bamboo stick was in situ, which entered 4 cm medial to the left anterior superior iliac spine and exited 3 cm above the skin at the posterior triangle of neck.

**Operation:** Imaging modalities were followed by exploration via the left thoracoabdominal incision. The thorax, mediastinum and neck were assessed in the beginning and after confirming that no great vessels were at risk, the foreign body was then carefully removed. The perforated stomach, jejunum and diaphragm were repaired. The upper lobe of lung had to be resected. An abdominal drain and two intercostal drains were placed. The total operative time was 3.30 hours and the child was managed in intensive care for four days and was finally discharged after two weeks.

**Conclusion:** A rare penetrating injury with damage to the multiple organs could be managed successfully possibly because of teamwork and also due to some sensible move by the villagers as they did not try to fiddle around with the foreign body.

#### **Biography**

Shailesh Adhikary qualified as a Surgeon from Post Graduate Institute in Chandigarh, India in 1994 and currently working as a Clinical Teacher and a Surgeon at the Community Based Medical College in Eastern Nepal for 12 years and has published 34 papers at national and international journals and is serving as an Editorial Board Member for Asian Journal of Surgery. He is also the Governor of Endoscopic Laparoscopic Surgeons of Asia working to promote the Minimal Access Surgery Development across Nepal and in Asia.

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**To determine validity of ultrasound in predicting acute appendicitis among children keeping histopathology as gold standard**

**Ubaidullah khan, Murad Kitar, Rasha A, Mostafa YL Khalif, Imed Krichen, Omer Althaqafi, Kais Maazoun and M Adwani**  
Alhada Armed Forces Hospital, Saudi Arabia

**Background:** To determine the accuracy of ultrasound in diagnosis of acute appendicitis in children keeping histopathology as gold standard.

**Methods:** A prospective evaluation of all ultrasound for appendicitis from January 1, 2014, to December, 2017, was conducted at our hospital. A diagnostic protocol was adopted for each patient, US as the initial imaging modality followed by CT in patients with an equivocal clinical presentation. The imaging, operative findings, and pathology of 223 patients (females 80, males 143, age less than 14 years) with diagnosed appendicitis were collected. The sensitivity, specificity, predictive value, and negative appendectomy rate were also analyzed. All those patients which had subjected to surgery were included to evaluate the true result of ultrasound in diagnosis of appendicitis.

**Results:** Of the 223 pediatric appendectomies performed in this time period, a total of 192 (86%) were diagnosed by ultrasound. The histopathology of 8 was normal (3.1%), CT done in 11 and three was normal. The negative appendectomy rate was 3.1%. US were the sole imaging modality in all patients.

**Conclusions:** In the diagnosis of acute appendicitis in children, ultrasound is a useful and accurate mode, which results in a significant decrease in negative appendectomies with no increase in the number of CT scans. This has important implications in the reduction of childhood radiation exposure.

**Keywords:** Acute appendicitis; ultrasound; histopathology.

### Biography

Al Hada Armed Forces Hospital is a tertiary care hospital with specialist training programmes for the pediatric department. It has approximately 400 in-patient beds. The pediatric surgery unit provides tertiary care service for the region. The unit serves inpatient, outpatient, NICU and emergency. Each month 200 operations are done as a day case, admit and emergency basis. On my on-call, I am responsible for all pediatric surgery inpatients care, NICU, PICU, OR and emergency especially trauma patients at Al Hada hospital. This region has high trauma patients due to location and high turnout of visitors to Makkah, the only link road from western region.

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## Therapeutic hypothermia for perinatal asphyxia at a tertiary care neonatal unit in South India: our center experience

Sowjanya S V N S, Lakshmi Venugopalan and Karthik Thiagarajan  
Mehta Multispecialty Hospitals India Pvt. Ltd., India

**Background:** Perinatal asphyxia accounts for 23% of the neonatal deaths especially in developing countries. Therapeutic hypothermia (TH) has recently emerged from bench to bedside. Systematic reviews and meta-analyses have shown that TH is effective in reducing mortality and disability following hypoxic ischemic insult. There are a number of concerns about the safety and efficacy of cooling in low- and middle-income countries like sub optimal intensive care facilities, time window to administer cooling and high incidence of sepsis. Hence we decided to study immediate and long term outcomes after starting TH in our unit.

**Objectives:** Primary outcome is mortality in NICU. Secondary outcomes were adverse events, death after discharge, neurological examination at discharge, number of antiepileptic drugs at discharge and neurodevelopmental outcome at follow up.

**Study Setting:** The study was conducted in the Level 3 neonatal intensive care unit, Mehta Multispecialty Hospitals, Chennai, India.

**Study Period:** The study period was during October 2013 to April 2017.

**Methods:** Babies who met TOBY criteria were cooled to 33.5 °C using second-generation Tecotherm within 6 hours of birth for 72 hours, followed by rewarming at 0.5 °C/h. All the babies who were cooled at our unit were enrolled into the study after parental consent. We recorded the baseline maternal and neonatal characteristics. Primary and secondary outcomes studied as mentioned. Encephalopathy staging was done using Sarnat and Thompson score. Neurological examination at discharge was done using Hammersmith examination. Subsequent neurodevelopmental follow-up was performed on the babies using Developmental Assessment Scales for Indian Infants-II (DASII).

**Results:** A total of 19 babies received TH during the study period. Mean gestational age and birth weight were 38.69 (1.53) wks. and 2.96 (0.4) kg respectively. Median Apgar at 5 minutes was 4 (3.5), mean pH and base excess prior to cooling were 7.25 (0.1) and -14.5 (3.96) respectively. 94.74% were outborn and 57.89% were male babies. 73.68% had moderate encephalopathy. Seizures were noted in 94.73% with multiple episodes in 22.22% babies. 11.11% required more than two anti-epileptic drugs (AED's) for seizure control. Mean Thompson score at enrolment was 11.37 (3.43). Mean age at cooling was 3.73 (1.44) hrs. and the target temperature 33.5 °C was achieved within mean duration of 47.1 (20.02) minutes. Most common adverse event was shock (52.63%) followed by coagulopathy (47.37%). Most common metabolic disturbance was hypocalcemia (63.16%) followed by hypomagnesemia (47.37%). 84.2% babies required mechanical ventilation and no babies died while in NICU. CNS examination was normal at discharge in 63.16%. 47.37% required AED's at discharge with 33.33% requiring 2 AED's. 61.11% of the babies were breast feeding at discharge and 77.78% of the babies had abnormal MRI while 44.44% had abnormal EEG. Two babies (10.53%) died after discharge. Neurodevelopmental follow up was done for 15/19 (78.95%) babies. Mean age of neurodevelopmental follow up was 15.92 (4.97) months. 40% (6/15) babies had motor and mental quotients less than 85.

**Conclusion:** Therapeutic hypothermia is feasible and safe. Therapeutic hypothermia resulted in better survival and neurodevelopmental outcomes at follow up in our study. TH did not cause any reduction in abnormal MRI and EEG. Hence, it may be noted that additional neuroprotection may be needed along with hypothermia.

### Biography

Sowjanya S V N S has completed her MD Pediatrics from Siddhartha Medical College, Vijayawada, India. She has worked as Senior Resident in Pediatrics for three years involved in undergraduate and postgraduate training. She will be finishing her DNB Neonatology by May 2018. She has published three papers in reputed journals till date. She has five papers and four poster presentations till date in many conferences. She has done a live webinar for ILCA conference 2017, Canada. She has presented her poster at PSANZ 2017 Canberra, Australia. Her areas of interest are critically sick neonates, perinatology and neurodevelopmental follow-up.

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# JOINT EVENT



22<sup>nd</sup> Edition of International Conference on  
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**Pediatrics and Pediatric Surgery**  
May 07-08, 2018 Frankfurt, Germany

## Scientific Tracks & Abstracts Day 2

*Neonatology & Pediatric Surgery 2018*

## Perinatology | NICU | Pediatric Research | Pediatric Surgical Advancements Neonatal syndromes

**Session Chair**  
**Taketoshi Yoshida**  
Toyama University Hospital, Japan

**Session Co-Chair**  
**Sajjad ur Rahman**  
HMG Hospital, Al Qassim, Saudi Arabia

### Session Introduction

- Title: Can MCA Doppler predict mortality in fetuses with congenital hydrocephalus?**  
**Bahauddin Ibraheem Sallout**, Women's Specialized Hospital - King Fahad Medical City, Saudi Arabia
- Title: Does infrared temperature reflect core body temperature? A comparative study on infrared temperature from different parts of the body with axillary temperature**  
**Varghese Abraham**, Christian Hospital Chhatarpur, India
- Title: Role of neonatal occupational therapist in early identification, sensory/neurodevelopmental care and early intervention in high risk infants**  
**Geetha M Arora**, Fortis Healthcare, Delhi NCR, India
- Title: Association between the safe delivery app and quality of care and perinatal survival in Ethiopia: a randomized clinical trial**  
**Stine Lund**, University of Copenhagen, Denmark
- Title: Influence of health-insurance status on non-Hodgkin lymphoma treatment in Kenya**  
**H A Martijn**, VU University Medical Center, Netherlands
- Title: Case report: fetus in fetu with absence of vertebral axle**  
**Isabela Barros**, Instituto de Medicina Integral de Pernambuco - Brazil
- Title: Unusual presentation of splenic cyst and management: case report**  
**Ubaidullah Khan**, Al Hada Armed forces hospital, Saudi Arabia
- Title: Successful primary repair of long-gap esophageal atresia in a neonate employing circular myotomy on upper pouch and hemi-circular myotomy of the distal esophageal pouch: a Novel approach**  
**Afridi F G**, West Virginia University Hospital, USA
- Title: The role of Tunica vaginalis flap as a supportive additional layer in the repair of proximal hypospadias**  
**Mohammed H Aldabbagh**, Duhok University college of Medicine, Iraq



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### Can MCA Doppler predict mortality in fetuses with congenital hydrocephalus?

**Bahauddin Ibraheem Sallout**

Women's Specialized Hospital - King Fahad Medical City, Saudi Arabia

**Objective:** The objective of this study is to investigate the impact of abnormal middle cerebral artery (MCA) Doppler on the perinatal mortality in fetuses with congenital hydrocephalus (CH).

**Methods:** A prospective study of all fetuses with CH who delivered at our hospital over a period of 7 years. Data were obtained from the ultrasound, labor room and intensive neonatal care unit (NICU) database. The perinatal mortality rates were evaluated in relation to the following measures, associated congenital anomalies, cortical mantle thickness (CMT), and MCA Doppler abnormalities (absent or reversed diastole). The main outcome measure was perinatal mortality rate in relation to MCA Doppler changes.

**Results:** A total of 85 cases of CH were diagnosed and managed. The birth prevalence of CH was 2.44 per 1000 live births. On one hand, the perinatal mortality rate was higher in those fetuses with non-isolated hydrocephalus, (37.25% (19/51)) versus (35.29% (12/34),  $p=0.854$ ) and in those cases with CMT <10 mm, 38.78% (19/49) versus 33.33% (12/36) in those with CMT >10 mm,  $p=0.607$ . On the other hand, the perinatal mortality rate was significantly higher in those fetuses with abnormal MCA Doppler, 100% (13/13) versus 25% (18/72), OR=0.78, 95% CI (5.52–44085124.60),  $p<0.001$ .

**Conclusions:** Abnormal fetal MCA Doppler (absent or reversed diastole) appears to be a poor prognostic indicator with significantly high perinatal mortality in fetuses with CH.

#### Biography

Bahauddin Ibraheem Sallout is a certified Maternal Fetal Medicine (MFM) Consultant from University of Ottawa, Canada, with American Specialty in Ultrasound in Obstetrics and Gynecology. He has special training in Fetal Echocardiograph and 3D/4D Sonography. He developed the Ultrasound Unit and established the MFM Department, and currently, the Medical Director for the Women's Specialized Hospital, King Fahad Medical City, Riyadh, Saudi Arabia. He has 15 publications in the field of Obstetrics Ultrasound and Fetal Medicine, and he has participated and presented in many international and local conferences.

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**Does infrared temperature reflect core body temperature? A comparative study on infrared temperature from different parts of the body with axillary temperature**

**Varghese Abraham**

Christian Hospital Chhatarpur, India

**Objective:** To determine the limit of agreement between non-contact infrared temperature (NCIT) from forehead, chest and abdomen with digital axillary temperature (DAT).

**Design & Setting:** Prospective study was conducted in the Neonatal unit of Christian Hospital Chhatarpur, Madhya Pradesh, India (A mission hospital under Emmanuel Hospital Association, New Delhi).

**Methods:** In this study NCIT from the forehead, chest and abdomen was compared with DAT by Bland Altman plot.

**Results:** A total of 211 sets of temperature were recorded from neonates admitted in the Division of Neonatology, Christian Hospital Chhatarpur, Madhya Pradesh, India. The DAT agrees well with NCIT chest [mean difference = 0.1346, 95% limit of agreement: (0.08455, 0.1846)] as compared to NCIT forehead and abdomen [Figure 1].

**Recent Publications**

1. Varghese Abraham, Elizabeth Johnson, Khristina Deep, Deepanjali Dip, Pratima Yadav and Mahima Singh (2018) Is phototherapy stressful? A study to compare the stress of neonates in single and double surface phototherapy. *Journal of Clinical Neonatology* 7:38-40.
2. Varghese Abraham (2015) Congenital malaria mimicking sepsis - a case report from malaria endemic area in Central India. *Acad J Pediatr Neonatol* 1(1).
3. Abraham M Ittyachen, Mohan B Jose and Varghese Abraham (2013) Autoimmune hemolytic anemia secondary to chicken pox. *Ann Trop Med Public Health*, 6:353-

**Biography**

Varghese Abraham has completed his Postgraduation in Pediatric Medicine from Christian Medical College Ludhiana in 2015. He is interested in Pediatric Neurology and Neonatology. After his post-graduation his main work was with the neonates and is the in charge of SNCU in Christian Hospital Chhatarpur, Madhya Pradesh, India. He has 5 international paper presentations and was the resource person in Neonatal Survival Training (A series of workshop funded by Emmanuel Hospital Association Canada). He has 2 case reports in international journal and one research brief in *Journal of Clinical Neonatology* which is awaiting publication. He has given prime importance in patient care, teaching and medical research. He was the principal investigator in 2 studies done in Christian Hospital Chhatarpur, India and always took initiative in uplifting the quality of care by frequent training of the pediatric and neonatal staff nurses.

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**Role of neonatal occupational therapist in early identification, sensory/neurodevelopmental care and early intervention in high risk infants**

**Geetha M Arora**

Fortis Healthcare, Delhi NCR, India

Neonatal intensive care unit professionals specialize in one aspect as your baby's health care, neonatal occupational therapist treats the whole child. Research over 30 years have shown, that babies who are admitted for neonatal care are at high risk for developmental problems later in life, be that a result of a premature birth or a complicated full term delivery. High risk birth also has a major impact on the family as a whole, affecting parent's mental health and well-being and their interaction with their child, which can influence child's outcome. Early sensory and motor & behavioral assessment, modification in environment, feeding, early intervention and parent education delivered in the first two years of life during a period of rapid brain maturation, neuro developmental plasticity may have lifelong benefits on a child's health and wellbeing. Occupational therapists look at how the baby interacts with the nice environment and how that affects their development which is often referred as developmental care. Occupational therapist plays an important role in high risk infant's sensory system and their ability to organize and regulate the stimuli in the world around them. They recognize that each baby requires an individualized approach that addresses their unique capabilities to reach their full potential. The primary goals of neonatal occupational therapist are to improve developmental outcomes and facilitate baby family connection.

**Biography**

Geetha M Arora is an eminent Neonatal and Pediatric Occupational Therapist and an international guest Lecturer with a rich experience of more than 12 years. She had completed her Master's degree in Occupational Therapy (Pediatrics) from Dr. MGR Medical University, India and holds Sensory Integration Certification from University of California along with certification in advanced PrechtI general movement assessment, Beckman oral motor assessment and intervention, oral placement therapy, autism movement therapy, hand writing without tears, MNRI. She has completed PGDBM at Amity University in Family and Child Psychology. She is the Founder and Director of Bubbles OT Centre, and visiting Consultant Fortis Healthcare, Noida, India.

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## Association between the safe delivery app and quality of care and perinatal survival in Ethiopia: A randomized clinical trial

Stine Lund, Ida Marie Boas, Tariku Bedesa, Wondewossen Fekede, Henriette Svarre Nielsen and Bjarke Lund Sørensen  
University of Copenhagen, Denmark

**Importance:** Health apps in low-income countries are emerging tools with the potential to improve quality of health care services, but few apps undergo rigorous scientific evaluation.

**Objective:** To determine the effects of the safe delivery app (SDA) on perinatal survival and on health care workers' knowledge and skills in neonatal resuscitation.

**Design, Setting, & Participants:** In a cluster-randomized clinical trial in five rural districts of Ethiopia, 73 health care facilities were randomized to the mobile phone intervention or to standard care (control). From September 1, 2013 to February 1, 2015, 3601 women in active labor were included at admission and followed up until seven days after delivery to record perinatal mortality. Knowledge and skills in neonatal resuscitation were assessed at baseline and at 6 and 12 months after the intervention among 176 health care workers at the included facilities. Analyses were performed based on the intention-to-treat principle.

**Interventions:** Health care workers in intervention facilities received a smartphone with the SDA. The SDA is a training tool in emergency obstetric and neonatal care that uses visual guidance in animated videos with clinical instructions for management.

**Main Outcomes & Measures:** The primary outcome was perinatal death. Secondary outcomes included the knowledge and clinical management of neonatal resuscitation (skills) of health care workers before the intervention and after 6 and 12 months.

**Results:** The analysis included 3601 women and 176 health care workers. Use of the SDA was associated with a non-significant lower perinatal mortality of 14 per 1000 births in intervention clusters compared with 23 per 1000 births in control clusters (odds ratio, 0.76; 95% CI, 0.32-1.81). The skill scores of intervention health care workers increased significantly compared with those of controls at 6 months (mean difference, 6.04; 95% CI, 4.26-7.82) and 12 months (mean difference, 8.79; 95% CI, 7.14-10.45) from baseline, corresponding to 80% and 107%, respectively, above the control level. Knowledge scores also significantly improved in the intervention compared with the control group at 6 months (mean difference, 1.67; 95% CI, 1.02-2.32) and at 12 months (mean difference, 1.54; 95% CI, 0.98-2.09), corresponding to 39% and 38%, respectively, above the control level.

**Conclusions & Relevance:** The SDA was an effective method to improve and sustain the health care workers' knowledge and skills in neonatal resuscitation as long as 12 months after introduction. Perinatal mortality was non-significantly reduced after the intervention. The results are highly relevant in low-income countries, where quality of care is challenged by a lack of continuing education.

### Biography

Stine Lund is a Pediatrician with extensive experience in global reproductive and child health. Her area of special interest is health systems in Sub-Saharan Africa, where for the last decades has worked for numerous organizations including Danida (Danish International Development Agency) and as an independent Consultant. She has extensive experience with innovative use of mobile phone solutions to improve maternal and child health in Sub-Saharan Africa. She is responsible for the development, research and scale up of two exciting mHealth innovations; the Wired Mothers and the Safe Delivery App. The Wired Mothers is a SMS based system that links women to health systems throughout pregnancy and early childhood while the Safe Delivery App uses animation-videos to improve quality of care with a focus on lifesaving interventions such as management of post-partum hemorrhage and neonatal resuscitation. Academically, she holds a PhD degree and is affiliated with the Department of Public Health, University of Copenhagen, Denmark with a focus on conducting randomized controlled trials in Ghana, Ethiopia and Tanzania.

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### **Influence of health-insurance status on non-Hodgkin lymphoma treatment in Kenya**

H A Martijn<sup>1</sup>, F Njuguna<sup>2</sup>, S Martin<sup>3</sup>, J Skiles<sup>3</sup>, T Vik<sup>3</sup>, G Olbara<sup>2</sup>, S Langa<sup>2</sup>, G J L Kaspers<sup>1</sup> and S Mostert<sup>1</sup>

<sup>1</sup>VU University Medical Center, Netherlands

<sup>2</sup>Moi Teaching and Referral Hospital, Kenya

<sup>3</sup>Indiana University School of Medicine, USA

**Background:** Non-Hodgkin lymphoma (NHL) is the most common childhood malignancy in Sub-Saharan Africa. Survival rates for NHL are higher than 80% in high-income countries. This study explores treatment outcomes of children with NHL in Kenya, a Sub-Saharan low-income country, and determines the influence of health-insurance status at diagnosis on treatment outcomes.

**Methods:** This was a retrospective medical records study. All children diagnosed with NHL from 2010 until 2012 were included. Data on treatment outcomes and health-insurance status at diagnosis were collected.

**Results:** Of all 63 NHL patients, 35% abandoned treatment, 22% had progressive or relapsed disease, 14% died, and 29% had event-free survival. Most patients (73%) had no health-insurance at diagnosis. Treatment outcomes in children with or without health-insurance at diagnosis differed significantly ( $P=0.003$ ). The most likely treatment outcome in children with health-insurance at diagnosis was event-free survival (53%), whereas in children without health-insurance at diagnosis it was abandonment of treatment (44%). The event-free survival estimate was significantly higher in children with health-insurance at diagnosis than in patients without health-insurance at diagnosis ( $P=0.003$ ). Age at diagnosis, gender, distance to hospital, duration of symptoms and stage of disease did not significantly influence treatment outcomes and event-free survival estimates.

**Conclusion:** Survival of children with NHL in Kenya is much lower compared to high-income countries. Abandonment of treatment was the most common cause of treatment failure. Health-insurance status at diagnosis significantly impacted treatment outcomes and survival. Survival of children with NHL could increase if access to health-insurance would be improved.

#### **Biography**

H A Martijn has recently completed Medical School in VU University Medical Center Amsterdam, The Netherlands. He has published a number of papers regarding Pediatric Oncology. The papers were written based on his research period in Kenya where, Dr. S Mostert, Dr. F Njuguna and Doctor2Doctor, conducted prospective, retrospective and medical record based research.

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### Case report: Fetus in fetu with absence of vertebral axle

Isabela Barros\*, Belisa Caldas and Claudia Araújo  
Instituto de Medicina Integral de Pernambuco - Brazil

**Introduction:** Fetus in fetu (FIF) is an extremely rare congenital anomaly, the estimated incidence is 1 to 500,000 births. It is the result of abnormal development of monozygotic and diamniotic twins, where a parasitic twin is incorporated into the body of the host twin. Less than 200 cases were described in literature, in 1953 Willis defined it as a mass containing a vertebral axis and with highly developed organogenesis. Less than 10% of the patients present with the lack of vertebral axle, in this cases the differential diagnosis is made based on other findings. Treatment consists of complete resection.

**Methods:** Data was collected by medical records, interview with the patient's responsible, patients and diagnostic exams. The review of the literature occurred through the PubMed database.

**Results:** Eight year old female patient, presenting with palpable and painless abdominal mass in the left flank since first months of life, progressively increasing. At 8 years, after unspecific symptoms (vomiting and fever) sought the emergency, after investigation a tomography of abdomen was performed, showing a tumor, measuring 15.0 x 10.0 x 8.5 cm, suggesting tumor of dermoid lineage or fetus in fetu. Alpha-fetoprotein and human chorionic gonadotropin (hCG) levels were normal. She underwent surgery with complete resection of right retroperitoneal mass. The anatomopathological study evidenced a tumor measuring 14.5 x 9.0 x 8.0 cm and weighing 624 g. Macroscopically, it was possible to recognize a structure with an appearance of an eyeball, sketch of mouth with teeth and central bone axis with bone marrow, without specific identification of vertebral axle. Microscopically, there was organogenesis, with confirmation of ocular structure, besides the presence of skin, odontogenesis and salivary glands, among other tissues.

**Conclusion:** Considering the controversy between extremely differentiated teratoma and fetus in fetu, the presence of well differentiated organogenesis around an axial axis, in this case, corroborates the diagnosis of FIF, even in the absence of a vertebral axle. This is a rare clinical presentation.

### Biography

Isabela Barros is an intern in IMIP (Professor Fernando Figueira Integral Medicine Institute) and medical student in Faculdade Pernambucana de Saúde. Dr Barros has concluded a one-year program in pediatric surgery in IMIP, which is a reference in pediatrics and pediatric surgery in Brazil and has worked in partnership with WHO recognized institutions, has also concluded internships in the US and the UK.

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### Unusual presentation of splenic cyst and management: Case report

Ubaidullah Khan, Kitar M, Krichen I, Khelifi M, Al Oteibi R and Maazoun K  
Al Hada Armed forces hospital, Taif, Saudi Arabia

**Purpose:** Through our case report to discuss alternative surgical approach for splenic cyst management.

**Introduction:** Nonparasitic splenic cysts are rare, less than 1000 cases have been reported in the literature. Although surgical management is the most practiced, no clear guidelines are available; techniques vary from simple partial cystectomy to total splenectomy.

**Methods:** We report a case of 12 years old girl with incidental finding of huge nonparasitic splenic cystic mass.

**Result:** Laparoscopic cystectomy was performed in stage one leaving spleen intact, though high recurrence rate. Follow by partial splenectomy in same admission with uneventful follow up. Histopathology show congenital cyst lesion.

**Conclusion:** Laparoscopic cystectomy ± partial splenectomy is safe technique compared to total splenectomy, though the evidence of higher risk of recurrence.

#### Recent Publications

1. Xavier Delforge, Yann Chaussy and Paula Borrego (2017) Management of nonparasitic splenic cysts in children: A French multicenter review of 100 cases. *Journal of Pediatric Surgery* 52(9):1465-1470.

#### Biography

Al Hada Armed Forces Hospital is a tertiary care hospital with specialist training programmes for pediatric department. It has approximately 400 in-patient beds. The pediatric surgery unit provides tertiary care service for the region. The unit serves inpatient, outpatient, NICU and emergency. Each month 200 operations done as a day case, admit and emergency basis. On my on-call, I am responsible for all pediatric surgery inpatients care, NICU, PICU, OR and emergency especially trauma patients at Al Hada hospital. This region have high trauma patient due to location and high turnout of visitors to Makkah, the only link road from western region.

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**Successful primary repair of long-gap esophageal atresia in a neonate employing circular myotomy on upper pouch and hemi-circular myotomy of the distal esophageal pouch: A novel approach**

**Afridi F G, Vaughan R, Neptune S, Shorter N and Singh S**  
West Virginia University Hospital Program, USA

**Introduction:** Pure esophageal atresia (EA) with a long gap between the pouches remains a challenge for a primary repair. Several techniques to facilitate primary repair of this defect have been described: complete mobilization of distal esophageal pouch, single or double circular myotomies or spiral myotomy of upper pouch, circular myotomy of both upper and lower pouches, flaps raised from the upper pouch to bridge the gap and external traction sutures. Complete mobilization of upper pouch with circular myotomy is standard and often favored approach. It is feasible due to the anatomical advantage of blood supply of the upper pouch. Although complete mobilization of lower pouch with or without circular myotomy is described, it has a risk of impairing blood supply to the lower pouch due to segmental nature of its blood supply. We present a novel case of primary repair of long gap esophageal atresia using a circular myotomy on the upper esophageal pouch along with a hemi circular myotomy of the lower pouch, the latter is done without complete circumferential mobilization of the lower esophageal pouch.

**Case Report:** We report the case of a 38 4/7 weeks IUGR term infant with tetralogy of Fallot (TOF) with a long 4.5 cm gap pure esophageal atresia who was repaired aged 16 weeks. Per-operatively, gap assessment was done on the operating table and the gap was almost five vertebral bodies. The upper pouch was mobilized completely up to neck. Upon reassessment, a further 2.5 cms gap was found. The upper esophageal pouch was small and narrow, hence unsuitable to facilitate flap reconstruction and only a single circular myotomy was performed approximately 1 cm proximal to its blind end. The lower pouch was mobilized taking care that its blood supply was not compromised. This still left a one cm gap that was overcome by performing a hemi-circular (180 degree) myotomy on the lower esophageal pouch approximately 1 cm away from the blind end. A tension free primary esophageal anastomosis was then performed. The anastomosis did not leak albeit developing a stricture, which is amenable to balloon dilation. The infant had three esophageal dilations and the last one dilated the stricture successfully to 10 mm.

**Conclusion:** Hemi-circular myotomy of the lower esophageal pouch can help to achieve adequate lengthening of the pouch without compromising its blood supply and can help in facilitating a tension-free primary repair of long gap esophageal atresia. This technique has lesser risk of compromising blood supply to the distal esophageal pouch as it does not require full circumferential mobilization of the lower pouch as required with full circular myotomy.

### Biography

Dr Afridi was Born in Peshawar Pakistan and she proceeded to England after MBBS and worked towards her MS, MRCS and PhD degrees (Candidate 2018) before moving to USA to join her husband, also a physician. She is enjoying the move personally and professionally. She is based in Morgantown at Ruby Memorial Hospital, West Virginia University, USA..

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**The role of tunica vaginalis flap as a supportive additional layer in the repair of proximal hypospadias**

**Mohammed H Aldabbagh**  
Duhok University, Iraq

**Background:** Severe hypospadias like scrotal and perineal types are challenging problems for the surgeons, patients and their families. More than 300 methods were used to correct different type of hypospadias most of them carry high incidence of complications specially fistulas. These complications are much more common in the proximal types like our cases. One way of reducing the incidence of fistulas is to utilize the tunica vaginalis as an additional layer before skin closure. Using tunica flap is rather a new technique. Most related literatures about this subject used this technique after surgery to manage cases with post-operative fistulas. In the contrary we used this technique during the formal surgery to cover the new urethra to prevent fistula formation not after surgery.

**Aim:** To evaluate the role of tunica vaginalis flap in preventing fistula formation of severe hypospadias (like scrotal hypospadias) repair and problems related to its use.

**Patients & Methods:** Between 2016 and 2017 five children with scrotal hypospadias were operated on. Only severe cases were treated with this method other simpler and more common cases were treated by different surgeries like Snodgrass technique. The age range was 2 to 16 years. All of them had two staged repair, the first stage was correcting the chordae by incising the urethral plate then covering the bare shaft with dorsal flaps. The tunica flap was used in the second stage which was done 6 to 12 months later. The neo urethra was created by tabularizing the local skin flaps, and then a 2nd layer added from the surrounding tissues. The edge of the wound elevated toward the scrotum subcutaneous tunnel created. Tunica vaginalis vascularized flap then created from one side left or right tunica. The flap then passed under the skin toward the ventral penile site and used to cover the neourethra. The cremasteric muscles were not excluded from the flap. The skin closed over the flaps. Folly's catheter was used for ten to fourteen days after surgery. And the patients were followed for a variable time three months to two years period for the development of complications like fistula formation or stricture. Cosmetic considerations were also noted.

**Results:** All the five patients had scrotal type hypospadias. After surgery all patients had neither fistula formation nor stricture, with good cosmetic outcome. No post-operative penile torsion was noted. One patient developed local infection treated conservatively, one patient had partial glanular dehiscence at the distal end which had no clinical significance.

**Conclusions:** Using tunica vaginalis vascularized flap to cover the new urethra in severe proximal hypospadias during the second stage seems to be a successful way in preventing fistula formation without increasing the patient's morbidity.

**Biography**

Mohammed H Aldabbagh has completed his Pediatric Surgery board study from the Iraqi Board of Medical Specialization. He is a Consultant Pediatric Surgeon, Assistant Professor at the Surgical Department. He is the Head of the Medical Education Department College of Medicine Duhok University. He has published more than six papers in reputed journals.

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## Video Presentation

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### Individualized developmental care in the NICU

**Patricia Macho**

Swasthya Santulan Pvt.Ltd., India

**H**ypothyroidism is a condition characterized by abnormally low thyroid hormone production. There are many disorders that result in Hypothyroidism or Hyperthyroidism that may directly or indirectly involve thyroid gland. Hypothalamus-TRH-Pituitary-TSH-Thyroid T4 and T3. The rate of thyroid hormone production is controlled by the pituitary gland. If there is an insufficient amount of thyroid hormone circulating in the body to allow for normal functioning, the release of TSH is increased by the pituitary gland in an attempt to stimulate more thyroid hormone production. In contrast, when there is an excessive amount of circulating thyroid hormone, TSH levels fall as the pituitary attempts to decrease the production of thyroid hormone. The health of thyroid gland truly makes or breaks daily energy level, the ability to sustain a healthy weight for the frame, overall metabolic function, and can even affect emotional life (if thyroid function is low, depression can result; if thyroid function is high, anxiety can result). Thyroid is a remarkable gland, located at the front of the throat by the laryngeal prominence. If it functions properly, the perfect amount of thyroid hormone is secreted to meet your daily energy needs, but if it is low you will likely feel fatigued, unable to keep up with life's demands, have sleeping difficulties, gain weight easily and feel cold much of the time. Millions of Indians have thyroid conditions from genetic predisposition, years of stress, and compounded by the toll of pollution in our air, food, and water.

### Biography

Patricia Macho is a Master prepared Register Nurse with over 35 years experience working in the level IV NICU at Cohen Children's Medical Center of NY. She is currently the Nurse Educator in the NICU at Cohen Children's Medical Center of NY. She is a PhD candidate at the Graduate Center of CUNY. She has done multiple podium and poster presentations related to neonatal care and has published an article on Individualized Developmental Care.

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### Notes: