

age 7 months (IQR 5< 10 months). SCr was determined and preoperative and postoperative creatinine clearance (ClCr) was estimated using Schwarz formula. During surgical repair and till the end of the first 24 hours urine was collected to measure ClCr, using the difference in urine (UCr) and SCr concentrations. Urine output, body temperature, duration of aortic cross clamping and cardiopulmonary bypass was recorded.

**Results** Median intraoperative urine output was 2.4 ml/kg/h (IQR 1.29< 3.15 ml/kg/h). Intraoperative SCr rised to 35  $\mu$ mol/l (IQR 27.5< 50.5) vs preoperative SCr 29  $\mu$ mol/l (IQR 24< 32.9),  $p<0,0001$ . GFR declined from preoperative 98.4 ml/min./1.73 m<sup>2</sup> (IQR 89.6< 123.04) to intraoperative 39.8 ml/min./1.73 m<sup>2</sup>, (IQR 24.9< 65.5),  $p<0,0001$ .

**Conclusion** Open heart surgery in children has severe, but transient effect on expression of renal biomarkers. Before discharge from the hospital both biomarkers returned to normal values.

#### 1668 SYSTEMIC INFLAMMATORY RESPONSE SYNDROME (SIRS), MULTIPLE ORGAN DYSFUNCTION SYNDROME (MODS) AND SEPSIS AFTER OPEN HEART SURGERY IN CHILDREN

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**Background and Aim** Circulatory bypass (CBP) causes SIRS and MODS and the study of this prevalence is rare.

**Methods** We retrospectively made a cohort of 121 children operated during August, 2008 to July, 2009 to study the prevalence of SIRS, MODS and sepsis after open heart surgery.

**Results** The median age, weight, CBP time and temperature during CBP were 9 months, 6 Kg, 55 minutes and 32 ° C, respectively. We found 48% of septal defects. During the first hour in PCIU 50.4 (%) had the SIRS criteria with hypothermia present in 96.7(%). Hypothermia was most frequent during all postoperative days except the second when hyperthermia was present in 41.6 (%) vs 29.1(%) of hypothermia. The others SIRS criteria such as elevated respiratory rate, heart rate and leucocytosis were present in 81.3 to 91.7(%) , 25 to 37.5 (%) and 25 to 76.5(%) of children, respectively. MODS criteria were present in 22.3 (%) at arrive in PICU. During next postoperative days, MODS was more frequent than SIRS as follows: in the first day 53.8 (%) vs 32.2 (%), second 41.3 (%) vs 39.7 (%), third 29.8 (%) vs 19.8 (%), forth 24.8(%) vs 17.4 (%) and fifth 24.8(%) vs 13.2 (%). After the third, forth and fifth postoperative days 56.2 (%), 62(%) and 69.4 (%) of children, respectively, did not have SIRS or MODS. Prevalence of sepsis was 27.7 (%).

**Conclusion** After open heart surgery in children, SIRS and MODS are more frequent in first 48 hours than other diagnosis.

#### 1669 PERIPHERALLY INSERTED CENTRAL CATHETER (PICC) RELATED SUPERIOR VENA CAVA SYNDROME POST PATENT DUCTUS ARTERIOSUS LIGATION

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**Background and Aims** To assess incidence, management and outcomes of Superior Vena Cava (SVC) syndrome in post PDA ligation patients in the Rotunda Hospital. PICC's are used routinely in post-operative paediatric cardiac patients. Following placement, catheter-related thrombosis occurs in 8% to 45% of paediatric patients. Although uncommon, resultant SVC syndrome significantly complicates management of premature infants.

**Methods** A retrospective chart review of infants undergoing PDA ligation from July 2011 to March 2012.

**Results** 5 patients had PDA ligation within the study period. Average gestation at birth was 25+4 weeks and average birth weight was 0.754kg. Surgery was performed at an average weight of 1.027kg and 26.8 days. 9 PICC lines were inserted; mean of 1.8 per patient with removal following a mean of 12.5 days. 2 cases of catheter related thrombosis, post PDA ligation, resulted in SVC obstruction. Both patients had a PICC in situ at the time of surgery, the other 3 patients did not have PICC access during surgery. SVC thrombosis was detected at a mean of 15 days post operatively. One affected patient died subsequently due to complications.

**Conclusions** Post-surgical catheter related thrombosis is well documented. SVC syndrome can infrequently result as a complication, which may cause severe respiratory compromise leading to high morbidity and mortality. As treatment of SVC syndrome is very difficult, especially in post operative patients and with a trend towards fewer PDA ligations, increased awareness in neonatal units may allow early diagnosis and thrombolytic therapy to prevent the progression of this syndrome.

#### 1670 INTERNET ADDICTION AMONG CHILDREN IN FAMILIES OF HIGH SOCIOECONOMIC LEVEL AND THE EFFECTS OF FAMILIAL FACTORS

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**Background and Aims** Internet use has increased rapidly in Turkey, raising concerns about physical and mental health problems associated with Internet addiction in adolescents. This study sought to describe Internet use among children aged 10–16 years in Turkish families of high socioeconomic level, and to evaluate the effects of familial factors.

**Methods** A questionnaire based on the Internet Addiction Test (IAT) was administered to 329 parents in American Hospital in Istanbul during the September-December 2010.

**Results** Of children and adolescents included in the sample, 45.3% (n: 149) were females, and 54.7% (n: 180) were males. According the reports of parents, 9.1% (n: 30) of children and adolescents were Internet addicts.

**Conclusions** We found that gender, age, and Internet use frequency affected Internet addiction. Although the prevalence of Internet addiction is low among Turkish children, preventive and educational initiatives and the involvement of addiction experts are necessary to reduce the effects of this emerging phenomenon.

#### 1671 THE RELATIONSHIP BETWEEN SLEEP PATTERN AND OBESITY IN CHILDREN'S OF TEHRAN CITY

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**Objective** To determine the relationship of sleep duration and efficiency with obesity in Tehran city children's.

**Methods** This study was conducted in Tehran city with 270 children aged 6 to 9 years. Heights, Weight, were measured and Body mass index (BMI), was calculated. Directly measured height and weight data were used to define overweight and obesity according to the centers for disease Control and Prevention's (CDC) 2000 Growth Charts. Nocturnal sleep duration and sleep efficiency were recorded by the Actigraphy method.