Methods This prospective study includes 140 children less than 2 years, 64% females admitted for febrile UTI. PCT levels were measured at diagnosis and DMSA scan at the 6 months. We use a study of diagnostic test assessing their sensitivity and specificity. ROC curve was performed.
Results Abnormal DMSA was found in 14 infants (11.3%). Using a cutoff value of 0.6ng/ml. PCT sensitivity for detect renal scars on DMSA was 57.1% (95%CI, 31.2–83.1%) and specificity was 56.1% (95%CI, 46.7–65.5%). Negative predictive value was 90.9% (95%CI, 84–97.8%). AUC (area under curve) is 0.582.
Conclusions We can conclude that PCT yelds a high negative predictive value of renal damage. Therefore a low PCT value at the time of admission points out a low risk of renal scarring.

1205 INCIDENCE OF ACUTE POST STREPTOCOCCAL GLOMERULONEPHRITIS IN CHILDREN

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Aim To present a number of children with set diagnosis of APSGN in the Pristina Children's Clinic, incidence, clinical characteristics of the disease an treatment. Their follow up aimed to determine the further course of the disease and the possibility for progressing into a chronic form.
Materials and Methods This was an analysis of the children treated in the Prishtina Children's Clinic during 2009–2011. General date has been taken from all hospitalized patients, including: age, gender, parent's profession, residence and dwelling condition. The diagnosis of APSGN was set in 98 children based an anamnestic date for existing a prior streptococcal infection, characteristic clinical picture, as well as laboratory analyses (hematuria, proteinuria, titer of ASO, determination of the serum creatinin and urea and concentration of C3 and C4).
Results From 98 patients, witch is the total number of the examinees, the majority belonged to the 7–11 year old group, will the male patients were more frequent. According to the obtain anamnestic date, 82% cases had and anticipatory throat infection. In all cases, the clinical symptoms were hematuria and/or proteinuria. Hypertension was present in 73% cases, while edema was confirmed in 79% of the hospitalized patients. Positive ASO titer was confirmed in 75,8 % cases.
Conclusion In a larger number of our patients, i.e. in 96,5 % a complete recovery was obtained with further ambulance follow up, and only 3, 5% entered into the form of chronic glomerulonephritis.

1206 ASSOCIATION BETWEEN DIFFERENT ACUTE KIDNEY INJURY (AKI) DEFINITIONS AND MORTALITY IN VERY LOW BIRTH WEIGHT (VLBW) INFANTS

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Background AKI has been associated with increased mortality rate among VLBW infants. The best creatinine-based definition for AKI is still unclear. Our aim was to correlate mortality and different AKI-definitions.
Methods From January 1st 2005 to December 31st 2011 all VLBW infants born at S. Gerardo Hospital were recruited whenever ≥2 consecutive p-creatinine determined within 48 hours between 3 and 15 days of life were available.

AKI was defined as single creatinine ≥1.5 mg/dl (AKI-1), increase of ≥0.3 mg/dl within 48h (AKI-2) or increase of ≥50% within 48h (AKI-3).

The statistical concordance between the definitions was evaluated using the Cohen's Kappa coefficient and their association with mortality using uni- and multivariable logistic regression. AKI-definitions were adjusted for each other and for GA, BW and Apgar score.
Results Among 263 VLBW infants, 28 (10.6%), 40 (15.2%) and 26 (9.9%) met the definition for AKI-1, AKI-2 and AKI-3 respectively. Low agreement was shown between AKI-1/AKI-2 (Kappa 0.43, 95%CI:0.27–0.59) and AKI-1/AKI-3 (Kappa 0.32, 95%CI:0.14–0.51). Substantial agreement was observed for AKI-2/AKI-3 (Kappa 0.69, 95%CI:0.56–0.82).

68/263 patients died (28.8%), with AKI-1 45.1%, AKI-2 32.5% and AKI-3 26.9% respectively.

AKI patients run higher risk of death than the others (Crude OR 13.6 [P<0.001], 6.7 [P<0.001] and 3.8 [P0.007] for AKI-1, AKI-2 and AKI-3).

Using multivariable model, AKI-1 and AKI-2 remained associated with higher mortality (OR 4.25 [P=0.008] and OR 3.70 [P=0.041]).
Conclusions Different AKI-definitions lead to substantially different patients classifications. Even minimal increment of creatinine are associated with augmented risk of death among VLBW infants.

1207 TREATMENT AND DIAGNOSIS OF THE NEPHRITIC SYNDROME IN CHILDREN

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Background and Aims Nephritic syndrome (NiS) is of significant concern in Pediatric Nephrology with high progression rate. Aim of our study was to establish the pathohistological pattern, and assessment of mofetil mycophenolate efficacy (MMP) in comparison with cyclophosphamide (CYC) in children with NiS.
Methods Study was conducted in 27 children (16 boys) with chronic NiS. Kidney biopsy was performed in all patients under US-guidance using biopsy gun. Pathohistological investigation of renal biopsy included: light, immunofuorescent and electron microsopy.
Results Most frequent pathohistological variant was IgA-nephropathy (IgA-NP) (74.1%, p<0.001). In 14.8% patients NiS was associated with hereditary nephritis. Membranoproliferative glomerulonephritis (GN) (3.7%), and extracapillary GN (3.7%) were observed rarely. To induce the remission we used IV methylprednisolone for 3–6 days, oral prednisolone (Pred) 60 mg/m^2/day, MMP 1 g/m^2/day for 3–4 months. Remission was established when proteinuria was decreased to 0.5 g/day. Maintenance therapy was administered for one year or longer. Controls were administered with IV (3–4 pulses) or oral (for 2 months) CYC, Pred 60 mg/m^2/day for 1.5–2 months with following alternating schedule. All patients have received ACE inhibitors. Proteinuria was significantly (p<0.05) lower in main group (0.1 g/day) in comparison with controls (0.9 g/day), and GFR increasing was more prominent in main group (from 64.3 to 98.7 ml/min/1.73m^2), than in controls (from 68.5 to 89.1 ml/min/1.73m^2) (p<0.05).
Conclusions Thus, chronic nephritic syndrome in children was mostly associated with IgA-nephropathy. Combination treatment with mycophenolate mofetil + steroids and ACE inhibitors is more effective and safe than cyclophosphamide treatment.

1208 NEW BIOMARKERS IN SCREENING AND DIAGNOSIS OF VESICOURETERAL REFLUX

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Background Early diagnosis and treatment of vesicoureteral reflux (VUR) means prevention of 25% of cases of chronic renal impairment (CRI) which is due to reflux nephropathy.
Aim of the work This work was planned to correlate the levels of some urinary and serum biomarkers with traditional methods of diagnosis of reflux and reflux nephropathy.
Materials and Methods We evaluated urinary concentrations of IL-8 in 145 children. 105 children of them were selected from those who were diagnosed to have vesicoureteral reflux (study group). The other 40 children were apparently healthy children to serve as normal control (control group).

40 cases of the study group were randomly selected, DEMSA scan was done for them. Basic fibroblast growth factor (b-FGF) was estimated in the serum of these 40 cases.
Results Urinary IL-8 concentrations were significantly higher in study group than in control group. There was a highly significant difference in level of serum b-FGF between those with renal scarring and those without scarring.
Conclusion Urinary IL-8 can be used as a promising diagnostic marker for VUR. Also, it is appropriate to measure serum b-FGF in sera of those with reflux to determine if renal parenchymal damage (scarring) is present and of which grade.

1209 VESICOURETERAL REFLUX AND URODYNAMIC DYSFUNCTION

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The concept of vesicoureteral reflux (VUR) as a consequence of a congenital anomaly of the vesicoureteral junction have undergone changes owing to the finding that such children may have a lower urinary tract dysfunction, which produces a high intravesical pressure and consequently a predisposition for VUR. We investigated relationship of VUR and urodynamics. The urodynamics was investigated by pressure-flow-EMG study in 132 children with primary VUR and 162 refluxing units. Only 33 (25.0%) patients had normal urodynamic finding. The most frequent pathological finding was overactive bladder (OAB), found in 59 (44.7%) children, followed by dysfunctional voiding (DV) in 25 (18.9%) children. The children with VUR grades I and II had higher percentage of pathological urodynamic findings than children with VUR grades III and IV. OAB was more frequent in children under 5 years of age, with unilateral and lower grades VUR. It was found equaly in children with and without uroinfections. DV was more frequent in children older than 5 years, with bilateral VUR, higher grades VUR and uroinfections. The results of our study show that the children with VUR have high incidence of urodynamic disoders and indicate the possible role of urodynamic dysfunction in the pathogenesis of VUR, especially the mild ones. They also indicate the need for incorporating urodynamic investigation in the evaluation of children with VUR.

1210 URINARY STONE DISEASE IN CHILDREN- A SINGLE CROATIAN CENTER EXPERIENCE

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Urinary stone disease is not so rare in children. The aim of this study was to assess the demographic, clinical and biological characteristics, as well as outcome, of urinary stone disease among Croatian children. We reviewed medical records of 76 children from various parts of Croatia who were diagnosed with urinary stone disease from 2002–2011. The average age (mean) were 9 yr 7 mo (toddlers 7.89%) with approximately equal gender distribution (male 53.95% vs female 46.05%). Family affection was identified in 27 (35.53%) children with the predominance of female transmission. The most stones were made of Ca oxalate dihydrate and monohydrate (75%). Hypercalciuria were detected in 47.37%, mild hyperoxaluria in (13.16%), hypocitraturia in 1.31% and 38.16% remained of idiopathic origin. Urine saturation (EQUIL 2) were above the limits in 47 (61.84%) children, urine volume less than average in 12 (15.79%). For most of the children we recommended increased fluid intake and balanced food nutrition, citrate were administered in 20 (26.32%), thiazides in 10 (13.15%) and aldactone in 1 (1.31%). Spontaneous evacuation were noticed in 51.32%, surgical (operation and endoscopic removal) 11.84%, ESWL in 11 0.84%, spontaneous resolution (ceftriaxone) in 1 (1.31%) and in 13.16% the stone was not removed from urinary tract. The study gave insight in etiology of urinary stone disease in Croatian children. Main pathological factors were hypercalciuria, mild hyperoxaluria and increased urine saturation. Spontaneous evacuation of stones were notified for most of chldren.

1211 CYCLOSPORINE A IN THE TREATMENT OF RESISTANT CHILDHOOD NEPHROTIC SYNDROME

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Background In children, idiopathic nephrotic syndrome is primarily treated using corticosteroids. When remission is not achieved, the administration of potent immunosuppressant therapy becomes imperative. Cyclosporine A (CsA) is reportedly associated with a higher incidence of remission in comparison with other immunosuppressive agents. The aim of our study is to evaluate the efficiency of cyclosporin A (CyA) therapy in 11 children treated with resistant nephrotic syndrome.
Methods Eleven children enrolled in this study were all hospitalized with resistant nephrotic syndrome, aged 1 to 11 years (average 5.8 yrs) and included 7 males and 4 females. CyA was given to each patient with dosage of 5 mg/kg/day during the corticosteroid was diminished. The renwal biopsy was performed in all patients before the administration of CyA.
Results Eleven children with resistant nephrotic syndrome of different pathological types were treated with CyA, including 3 cases of minimal change nephrotic syndrome (MCNS), 2 cases of mesangioproliferative glomerulonephritis (MsPGN), 1 case of extra membranous glomerulonephritis (EMGN) and 5 cases of focal segmental glomerular sclerosis (FSGS).

Three patients got complete remission, seven patients developed chronic renal insufficiency and one had no change after four month treatment with CyA. The overall response rate was 27%. Patients with different renal pathological types showed different responses. The FSGS cases showed the lowest rate.
Conclusion CyA has limited efficiency in patients with steroid-resistant nephrotic syndrome. CyA should be used cautiously because of the potential for CyA nephrotoxicity.

1212 GITELMAN SYNDROME IN A SPANISH GYPSY PAEDIATRIC PATIENT MUTATION INTRON 9 +1G>T

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