Discussion The progressive increase in patients supported with this therapy mirrors its remarkable growth internationally. CVVH is the most dominant form of artificial renal support in Australian and European critical care, and its role as adjuvant therapy in sepsis is attracting increased focus.³

Conclusion CVVH activity is increasing at our institution, facilitated by a competent and flexible team of CVVH specialists. Future adequately powered multivariate logistic regression analysis should address outcomes of patients supported on CVVH.

PO-0789 IMPACT OF HYPERCALCIURIA IN PAEDIATRIC RECURRENT URINARY TRACT INFECTION

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Background Hypercalciuria has been considered as a predisposing factor for recurrent urinary tract infection (UTI) in recent studies. The mechanism may be related to uroepithelial injury by calcium microcrystals. The aim of this study was to evaluate the association of idiopathic Hypercalciuria with recurrent UTI in children.

Methods In this analytic study urine calcium:creatinine ratio of 40 children at the age of 2–16 years with recurrent urinary tract infection (without urinary tract anomalies and voiding dysfunction) was compared with 40 age and sex matched healthy children. Calcium:creatinine ratio more than 0.2 in a spot urine test was considered as hypercalciuria. Cases with hypercalcemia were excluded from the study. Recurrent UTI was defined as at least 3 episodes of UTI during 1 year or 2 episodes in 6 months.

Results Mean age of patients was 5 ± 2.22 years and mean age of control group was 5.13 ± 1.98 years. The mean calcium:creatinine ratio in case group (0.21 ± 0.17) was significantly higher than control group (0.08 ± 0.08) ($p < 0.05$). Hypercalciuria was detected in nineteen out of forty patients in case group (47.5%) and in 7.5% of control group ($p < 0.001$). History of familial urolithiasis was positive in 21% of hypercalciuric patients. There was not any significant difference in frequency of urinary symptoms between hypercalciuric and normocalciuric patients with recurrent UTI.

Conclusion Children who suffer from recurrent UTI in spite of absence of urinary tract anomalies should be checked for hypercalciuria. Control of hypercalciuria with low salt regimen and high fluid intake and treatment with hydrochlorothiazide may decrease UTI episodes.

PO-0790 FANCONI SYNDROME, VITAMIN D DEFICIENCY AND AKI IN BETA-THALASSEMIA PAEDIATRIC PATIENT RECEIVING DEFERASIROX: A CASE REPORT AND LITERATURE REVIEW

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Background and aims Deferasirox is a novel oral iron chelator for the treatment of iron-overload due to chronic hypertransfusion. Renal toxicity due to deferasirox was more recognised and deferasirox-induced tubulopathy has been increasing reports in the literature. We report a β -Thalassemia paediatric patient who

developed Fanconi Syndrome (FS), AKI and vitamin D deficiency after deferasirox therapy.

Methods Patient's information was summarised and compared with literature.

Results A 4.8-year-old girl with β -Thalassemia major commenced hypertransfusion at 1.3-year-olds and received deferasirox 21 mg/kg/day at 1.9-year-olds, which baseline serum ferritin was 2,216 ng/ml. After increasing deferasirox to 35 mg/kg/day for 11 months, serum ferritin was lowering to 781 mg/ml. She was admitted with gastroenteritis, which revealed severe normal anion gap hyperchloremic hypokalaemic metabolic acidosis, severe hypophosphatemia, hypocalcemia, glucosuria, albuminuria, phosphaturia and vitamin D deficiency. Serum creatinine increased from 0.45 mg/dl to 0.75 mg/dl before turning to normal two months following cessation of deferasirox, as others except acidosis that persistently need alkali treatment. There were only five paediatric cases reported for deferasirox-induced FS in β -Thalassemia patients and 2 out of 5 that presented AKI. A prospective study in children reported 2 out of 10 cases presented deferasirox-induced FS, which 90% were Thalassemia patients. Recovery of FS and AKI also literally presented within 3 months after deferasirox's cessation.

Conclusions – Deferasirox is potentially associated with renal toxicity in children, particularly FS and AKI.

– Diligent and regularly monitoring of renal function should be mandated in deferasirox receiving patients.

– Long-term consequences of kidney in deferasirox-treated children desire for further study.

PO-0791 DIFFICULTIES IN DIAGNOSING VASCULITIS SYNDROME: A CASE REPORT OF A 10-YEAR-OLD BOY FROM MOLDOVA

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Background Vasculitis presents several diagnostic challenges because patients could present with protean clinical manifestations and the range of differential diagnosis is broad. We report a pulmonary-renal syndrome in a 10-year-old boy referred to the Institute for Maternal and Child Healthcare.

Materials and methods A 10-year-old boy presented in April 2013 with rhinitis, fever and dry cough. His examination results were unremarkable except mild anaemia (9.9 g/dL) and markedly increased erythrocyte sedimentation rate (44 mm/h). A month later he had been admitted with complaints of proteinuria, hematuria and anaemia. In June he developed also arthritis. In October 2014 the child was admitted to the Paediatric Intensive Care Unit in a severe condition with rapidly progressive renal failure.

Results and discussion Antineutrophil cytoplasmic antibodies (ANCA) were positive with antigen specificity for myeloperoxidase (anti-MPO 37 KU/L). The other laboratory results included: mild anaemia and leukocytosis; proteinuria (69 mg/kg/day); increased blood urea nitrogen (BUN) and creatinine (10.4 mmol/L and 123 mmol/L, respectively). Thoracic CT revealed a solitary nodule 1.5×1 cm in the postero-basal segment of the inferior lobe in the left lung. The next step would be to perform renal biopsy to confirm the diagnosis.

Conclusions Our aim in presenting this case is to alert clinicians that, even without the definitive histological diagnosis, it is

necessary, based on clinical history and physical examination, and whenever possible serological tests (ANCA and anti-GBM), to start immunosuppressive therapy to interrupt fatal course of lung and kidney complications.

PO-0792 POST NATAL EVALUATION AND MANAGEMENT OF PRENATAL HYDRONEPHROSIS

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Background and aims Fetal hydronephrosis is the most common anomaly detected on prenatal ultrasound examination. Several algorithms exist for its management but it remains controversy until now. Here we present our experience in management and outcome of the patients with prenatal hydronephrosis.

Methods In this study 160 known cases of prenatal hydronephrosis were evaluated for detecting underlying aetiology. We carried out renal and bladder sonography and voiding cystourethrography (VCUG) for all patients and DTPA scan in cases with suspicion of obstruction.

Results Of 160 cases of prenatal hydronephrosis 75% were boys and 25% were girls. The mean duration of postnatal follow up was 21.5 months (3 months to 36 months). The most common detected abnormalities were ureteropelvic junction obstruction (UPJO) 90 patients, vesicoureteral reflux (VUR) 46 patients, posterior urethral valve (PUV) 15 patients respectively. Nine patients had neurogenic bladder. Prenatal hydronephrosis were unilateral in 83.2% (133 cases). In these cases 57% were on the left side. The grade of reflux was severe in 20 renal units (36.4%), moderate in 24 renal units (43.6%), and mild in 11 renal units (20%). During the follow up period 50 cases (31.25%) resolved spontaneously. 34 cases (21.25%) underwent surgery and 76 (47.5%) are still under medical treatment.

Conclusions It is highly suggested to do standard VCUG in all boys with prenatal hydronephrosis to detect PUV and neurogenic bladder. Additionally, renal sonography in all cases of congenital hydronephrosis and DTPA in cases with indication is recommended.

PO-0793 STUDY ON THE DETERMINING FACTORS FAVOURING URINARY TRACT INFECTIONS IN CHILDREN

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Background and aims The study of the factors that are in favour and determine the urinary tract infections (UTI) in children hospitalised in Clinic II Paediatrics, SCJU Craiova, between 1.01.2012–31.12.2013.

Material and method 213 children: 48 (22, 5%) infants, 25 (11.7%) 1–3 years, 31 (14.6%) 3–6 years, and 109 (51.2%) > 6 years

Results UTI accounted for 4.4% of all hospital admissions.

Distribution by sex (M/F): Infant 33/15, 1–3 years 17/8, 3–6 years 14/17, > 6 years 27/82; medium of origin Urban/Rural: Infant 26/22, 1–3 years 11/14, 3–6 years 14/17, > 6 years 42/67.

Favouring factors – Urinary tract abnormalities: phimosis 13 cases, hydronephrosis 12, 11 with kidney stones, vesicoureteral reflux 5 children, and pielocaliceal duplication in 5 children, 4 with hypospadias, congenital kidney in 2; vulvovaginitis in 9; oxiuria in 8; constipation in 7; poor hygiene at 15.

Bacterial determinant factors: E Coli in 118, Proteus in 28, 25 with Klebsiella, Enterobacter in 13 Pseudomonas aeruginosa in 10; viral causes in 19 cases (acute viral haemorrhagic cystitis).

Conclusion 1. UTI were more common in males in infants and children :1–3 years and as for the females in children between 3–6 years and > 6 years;

2. E coli was the determining factor in over 50% of the cases.

3. Urinary tract anomalies favoured about ¼ of the cases.

PO-0794 NEW TUBULAR INJURY MARKERS IN CHILDREN WITH SOLITARY FUNCTIONING KIDNEY

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The present study aimed to assess whether urinary profiles of the following lysosomal exoglycosidases: N-acetyl- β -hexosaminidase (HEX), its isoenzymes A (HEX A) and B (HEX B), α -fucosidase (FUC), β -galactosidase (GAL), α -mannosidase (MAN), and β -glucuronidase (GLU) are useful biomarkers of tubular dysfunction in children with solitary functioning kidney (SFK).

Methods We measured HEX, its isoenzymes HEX A, HEX B and FUC, GAL, MAN, GLU urinary activity in 52 patients with SFK. Patients were subdivided in two groups: congenital SFK (cSFK) - unilateral renal agenesis and acquired SFK (aSFK) - unilateral nephrectomy. The reference group (RG) contained 60 healthy children sex and age matched.

Results Urinary activity of all exoglycosidases in SFK was significantly higher than in RG ($p < 0.05$). There was no difference in exoglycosidases activity between cSFK and aSFK ($p > 0.05$). HEX, its isoenzymes HEX A, HEX B negatively correlated with eGFR, and all estimated parameters correlated positively with albumin/creatinine ratio ($p < 0.001$).

Conclusion Urinary activity of HEX, its isoenzymes HEX A, HEX B, FUC, GAL, MAN, and GLU is elevated in children with SFK. Long-term follow-up studies in larger groups of children with SFK may help us better understand their clinical significance.

PO-0795 URINARY TRACT INFECTIONS IN CHILDREN AND ROLE OF PAEDIATRICIAN IN THEIR EARLY DETECTION AND TREATMENT

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Introduction Urinary infections are common problem in paediatric practice. Every vague febrile condition should be considered as a possible urinary infection.

Objectives Role of paediatrician in early detection and treatment in urinary infection