Results: A dietary modification with low sodium diet and increased water uptake, in addition with thiazide diuretics and potassium citrate were recommended. In his follow-up a month later, calcium and citrate concentrations in 24hours urine collection were normal.

Conclusions: Hypercalciuria (40%) and hypocitraturia (38%) are the most common risk factors for the development of urolithiasis in children. The prognosis for nephrolithiasis depends on the primary diagnosis and adherence to therapy, but recurrence rates generally are high when the condition is left untreated.

1007

OSTEOPOROSIS AND BONE DISORDERS IN PAEDIATRIC RENAL TRANSPLANTATION RECIPIENTS

P. Nunes¹, A. Barros², C. Simão³

¹Serviço de Pediatria, Hospital S. Francisco Xavier, Lisbon, ²Serviço de Pediatria, Hospital Central do Funchal, Funchal, ³Unidade de Nefrologia Pediátrica, Hospital de Santa Maria / University of Lisbon, Lisbon, Portugal

Decreased bone mineral density (BMD) is common in renal transplantation recipients (RTR). Osteoporosis has a major role in morbidity in these patients. Risk factors for decreased bone mass include underlying renal disease, nutritional deficits, decreased physical activity, inflammation and immunosuppressive therapy.

We assessed the prevalence of osteoporosis and risk factors for bone disease in patients with at least 6 months post renal transplantation. The patients underwent clinical and laboratory evaluation, dual-energy X-ray absorptiometry (DXA) for BMD in lumbar spine (LS) and femoral neck. Low bone mineral density was defined by lumbar spine Z-scores less than or equal to -2 on DXA using the equipment-specific age, sex- and ethnicity - adjusted.

The study included 24 subjects who were between 7 and 18 years of age. The incidence of osteoporosis was 25% (6/24). We found 6 patients, all teenagers, 4/6 boys. Other bone disorders were 1 child with bone fracture, 1 *genu valgum* submitted to surgery and 1 femoral head avascular necrosis, but without osteoporosis diagnosed.

Four patients had PTH value >100 ng/liter, one of these with LS Z-score less than (-2). All were on triple drug immunosuppression with prednisolone, tacrolimus and mycophenolate mofetil

In conclusion, although DXA has several limitations it remains a good method for non-invasive and reproducible BMD assessment in children and young adults. Osteoporosis is a frequent complication and requires detection and treatment to reduce morbidity. The prevention of bone disorders is very important.

1008

BILATERAL RENAL VEIN THROMBOSIS IN A NEONATE

M.K.F. Docx¹, N. Demeyere², J. Ramet³

¹Paediatrics and Chronic Diseases, ²Paediatric Radiology, Queen Paola Children's Hospital Antwerp, ³Paediatrics, Univ. Hosp. Antwerp, Antwerp, Belgium

A female neonate, 35 weeks of gestation of a G1P0AB0 Caucasian mother was born after an urgent caesarean section because of diminished fetal movements and fetal bradycardia.

A few days postnatally, the neonate developed macroscopic hematuria, anemia and thrombocytopenia.

Multiple ultrasounds were performed and showed an adrenal haemorrhage with bilateral renal vein thrombosis and associated thrombosis in the vena cava inferior.

The hematuria vanished after 2 weeks and there is still a normal renal function.

DMSA showed an atrophic left kidney (15%) with a compensatory enlargement of the right kidney.

After 5 months a MRI angiography demonstrate a small left kidney (4,5 cm) and a right kidney with a craniocaudal measurement of 7 cm. The vessel wall of both main renal arteries is normal. A collateral venous drainage of the underpole of the right kidney exists. This image is an affirmation of a complete obstruction of both renal veins. There is a complete obstruction in the vena cava inferior just above the ostium of the right renal collateral vessel with pronounced paralumbal veins and probably a more cranial drainage via the azygos system.

The child and her father have both a heterozygote mutation factor V Leiden.

1009

RITUXIMAB IN SYSTEMIC LUPUS ERYTHEMATOSUS IN PEDIATRIC PATIENTS

M.M. Rodrigues¹, P. Oliveira², C. Simão²

¹Department of Child and Family - Pediatric Nephrology Unit, Hospital de Santa Maria - Centro Hospitalar Lisboa Norte, ²Department of Child and Family - Pediatric Nephrology Unit, Departamento da Criança e da Família - Serviço de Pediatria, Hospital de Santa Maria - Centro Hospitalar Lisboa Norte, Lisbon, Portugal

Systemic Lupus Erythematosus (SLE) is often more severe in children than in adults and innovative approaches are needed for patients who no respond to conventional treatment. Rituximab (RTX) is a chimeric anti CD-20 monoclonal antibody and it has been shown to be a useful therapy in some pediatric autoimmune diseases in which a key role of B cells has been considered.

We report two patients with severe SLE who were refractory to standard drug therapies and our aim was to evaluate the efficacy and safety with this monoclonal antibody.

A 11-years old girl with SLE (cutaneous, musculoskeletal and renal disease), requiring steroids and cyclophosphamide therapy. At 17 years old, renal function decreased (Glomerulonephritis Class IV-Jansen 2004) and refractory pancytopenia leading to more aggressive therapy with steroids, intravenous Immunoglobulin and mycophenolate, without clinical or laboratory response. We decided to add rituximab, achieving satisfactory control of disease, without major side effects.

A 13-years-old boy, with hemolytic-uremic syndrome and neurologic disease who was diagnosed SLE and antiphospholipid antibody syndrome. Conventional therapy (steroids, cyclophosphamide, Immunoglobulin, plasmapheresis) was not enough to control the disease and at last rituximab was introduced. A clinical and laboratorial improvement was achieved in 4 weeks after rituximab administration with remission of disease after 27 months.

Our results suggest the security and efficacy of RTX when used in combination with other immunosuppressive therapies. However, further

prospective trials in greater series of children are needed to confirm our results using RTX in monotherapy or co-therapy, and to evaluate adverse events.

1010

ANTIMICROBIAL RESISTANCE IN UROPATHOGENS IN CHILDREN FROM BRAZIL

R.C.P. Meneses¹, M.J.G. Mello^{2,3}, J.P. Ribeiro Neto^{1,3}, J.B. Correia^{4,5}

¹Pediatric Nephrology, ²Healthcare Control Comission, IMIP-Instituto de Medicina Integral Professor Fernando Figueira, ³Escola Pernambucana de Saúde, ⁴Research Department, IMIP- Instituto de Medicina Integral Professor Fernando Figueira, ⁵Paediatric Infectology, Universidade de Pernambuco, Recife, Brazil

Background and aims: To prevent urosepsis and reduce risk of renal scarring in children with urinary tract infection (UTI), empirical antibiotic treatment is started soon after the collection of urine specimens for culture and should be based on local epidemiology of uropathogens and their antimicrobial susceptibility. The aim of this study was to describe pathogens and their antimicrobial resistance in urine cultures of children under five, attending the Instituto de Medicina Integral Professor Fernando Figueira (IMIP), a teaching hospital in Recife, Brazil.

Methods: cross sectional study comparing an earlier (January 1999 to August 2001) and a later (January to December 2008) period of time. It was recorded the urine culture positivity rate, pathogen species; antimicrobial resistance (Kirby-Bauer diffusion disks) of isolates in urine cultures of children with suspected UTI.

Results: 601 (15%) of 4113 urine cultures were positive. The most frequent isolates in the earlier and later periods were, respectively: *E.coli* (30% and 41%), *Klebsiella* spp (27% and 25%), *P. aeruginosa* (5% and 9%), *P. mirabilis* (7% and 7%) and *Candida* spp. (11% and 4%). In 2008, the resistance of *E.coli* was (in descending order): co-trimoxazole (68%), nalidixic acid (52%), cephalotin (30%), ciprofloxacin (15%) and nitrofurantoin (8%). When all pathogens are considered, the highest antimicrobial coverages would be reached by ciprofloxacin (88%, CI95%=83.4-91.6%) and nitrofurantoin (75%, CI95% = 68.6-80.5 %).