to A.fem.]); dist.3 [=SSN to A.fem.]; dist.4 [(SSN to A.fem.) - (SSN to A.car.)].

Results: Mean SphygmoCor aPWV was 4.9 ± 0.6 m/s. Vicorder aPWV were 4.6 ± 0.6 m/s (dist.1; $r=0.46$ for correlation with Sphygmocor; $p < 0.0001$); 5.3 ± 0.7 m/s (dist.2; $r=0.44$; $p < 0.0001$); 5.2 ± 0.7 m/s (dist.3; $r=0.45$; $p < 0.0001$); 4.6 ± 0.6 m/s (dist.4; $r=0.46$; $p < 0.0001$). Using dist.1, the lowest deviation was seen ($11.3 \pm 8.1\%$).

Conclusions: The variability between both methods is well acceptable using dist.1. Since the Vicorder is easier to handle, needs less operator training and measurements are done more quickly, it seems the appropriate device for larger cohort studies in children.

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POSTNATAL FOLLOW-UP OF ANTENATAL HYDRONEPHROSIS

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Antenatal hydronephrosis is diagnosed in 1% to 5% of all pregnancies; however, the antenatal and postnatal management of hydronephrosis varies widely. The main point of postnatal management is the identification of the minority of patients whose renal function is at risk. Postnatal follow-up was considered successfully established when the patient with unresolved ANH has been evaluated in our pediatric nephrology service and had two normal postnatal USs that documented resolution of ANH. Screening of approximately 13125 ultrasound (US) reports identified 210 (1.6%) fetuses with ANH. 176 infants were included in follow-up. 30 (14%) were lost to follow-up. 4 with renal malformation were excluded. 176 infants were diagnosed with mild 105 (59.7%), moderate 59 (33.5%) and severe 12 (6.8%) hydronephrosis.

76.1% were males; unilateral and bilateral hydronephrosis were diagnosed in 116 (66%) and 60 (34%) cases, respectively; the rate of left hydronephrosis was 70.5%.

Ultrasound evaluation of hydronephrosis was performed with morpho-dynamic technique. This method assesses the maximum dilation after filling bladder and then after voiding. Thus a functional or organic dilation can be detected.

At 3th month US control, 53% of mild-group recover spontaneously.

Voiding cystourethrography was performed in 25% of mild-group. No ureteropelvic junction or obstruction and vesicoureteric reflux were detected. At the end of follow-up (24th month) mild/moderate groups recover.

Urinary tract malformations were found only in severe hydronephrosis while in mild/moderate group only "excretory system dysmaturity" was evidenced. Our trial showed a decreased use of invasive diagnostic procedure.

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SERUM AND URINE CYSTATIN C AND NEUTROPHIL GELATINASE-ASSOCIATED LIPOCALIN (NGAL) IN ASPHYXIATED TERM NEONATES: PRELIMINARY RESULTS

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Background: Cystatin C (CysC) and neutrophil gelatinase-associated lipocalin (NGAL) are novel biomarkers of acute kidney injury (AKI).

Objective: To evaluate CysC and NGAL in the serum and urine of term neonates with AKI secondary to acute asphyxia.

Patients-methods: Prospective study in term neonates with severe acute asphyxia and AKI ($n=8$, serum creatinine ≥ 1.5 mg/dL or rising values >0.3 mg/dL from baseline) and healthy term ones ($n=10$). Blood and urine samples were obtained on day 1 and 3 of life (DOL) for CysC and NGAL measurement (ELISA).

Results: Serum CysC was increased in neonates with asphyxia-AKI vs. healthy ones without the differences being significant (DOL 1; 2.04 ± 1.02 mg/L vs. 1.85 ± 0.35 mg/L, $p=0.609$, DOL 3; 2.04 ± 1.13 vs. 1.65 ± 0.35 mg/L, $p=0.435$). Similarly, serum NGAL was higher -although not significantly- on DOL 1 (155.3 ± 140 ng/mL vs. 55.2 ± 33 ng/mL, $p=0.087$) and DOL 3 (144.2 ± 151 ng/mL vs. 23.9 ± 9.6 ng/mL, $p=0.109$) in neonates with AKI. In the latter group, however, significantly increased urine values of CysC (DOL 1; 275 ± 0.127 ng/mL vs. 42 ± 127 ng/

mL, $p=0.003$, DOL 3; 279 ± 102 vs. 51.6 ± 38 ng/mL, $p=0.001$) and NGAL (DOL 1; 16.8 ± 4.1 ng/mL vs. 10.8 ± 5.3 ng/mL, $p=0.03$, DOL 3; 16.6 ± 6.2 vs. 12.3 ± 6.7 ng/mL, $p=0.226$) were observed. Serum creatinine was significantly positively correlated with serum and urine CysC and NGAL. Unlike NGAL, a significant positive correlation was found between serum and urine CysC.

Conclusions: In asphyxiated term neonates with AKI, CysC and NGAL significantly increase only in urine. Thus, their measurement in urine may be better than in serum for AKI evaluation in term neonates.

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SITUS INVERSUS AND PIGMENTARY MOSAICISM: ABOUT ONE CASE REVELED A CHRONIC RENAL FAILURE IN A GIRL OF 14 YEARS

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Chronic renal failure is not uncommon in children; its causes are well identified. From a case of our medical practice and literature data, this article offers a unique combination of situs inversus and abnormal neuro-ectodermal origin.

14 years old girl was seen in the pediatric emergency department for elevated blood pressure with visceral pain, and then admitted to the pediatric intensive care unit for hemodialysis. The evolution was marked by the rapid transition to the stage renal disease. Its history was marked by: a consanguinity, a dysmorphic syndrome, psychomotor retardation. Clinical examination revealed a ptosis, skeletal abnormalities, alternating hypo and hyperpigmented macules distributed over the members and the trunk, following Blaschko lines carrying the floral shape. The blood karyotype was normal.

Biologically, hypocalcemia and a growth hormone deficiency. Other complementary examinations disclosed a situs inversus.

The occurrence of pigmentary mosaicism is exceptional. His association with situs inversus and retarded growth by growth hormone deficiency has never been reported so far. Our observation, particularly because of the association, raises

questions: The possible existence of gene partner location on the same chromosome involved in the secretion of growth hormone and/or melanogenesis, then the causal relationship with the chronic renal failure.

Our observation underlines the interest to perform a cytogenetic study on fibroblasts injured skin where pigment mosaicism even in cases of normality of the karyotype or blood in the absence of overt phenotypic abnormalities and the systematic exploration of renal function in case of situs inversus associ

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COMPARISON OF PARACLINICAL FINDINGS IN ACUTE PYELONEPHRITIS AND CYSTITIS IN CHILDREN

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Background: Urinary tract infection is a common disease in children requiring immediate diagnosis and treatment. The aim of this study was to compare the paraclinical findings in acute pyelonephritis and cystitis in children.

Methods and materials: In this case-control study a group of sixty children with first symptomatic UTI and an abnormal DMSA scan (acute pyelonephritis) were compared with another sixty children with UTI and a normal DMSA scan (cystitis). This study was enrolled in Qazvin children hospital affiliated to Qazvin University of Medical sciences in Qazvin (Iran) in 2007.

Results: There was no significant difference between two groups according to data obtained for WBC, urinalysis, type of microorganism, and sonography ($p>0.05$) nevertheless, regarding the findings for ESR, CRP, and vesicoureteral reflux, a significant difference demonstrated ($p<0.05$). The sensitivity, specificity, and the accuracy of our data were unreliable.

Conclusion: Our study revealed that none of the laboratory and imaging findings tested was individually capable of locating the site of urinary tract infection, thus the performance of DMSA renal scanning to diagnose acute pyelonephritis is of prime necessity.

Keywords: Acute pyelonephritis, Cystitis, DMSA Scan, Child