Significant differences in genotype (p=0,032) and allele (p=0,045) frequencies were observed between children with DMP and control group. The genotype distribution was as follows: *1/*1 - 48,2%, *1/*2 - 30,4%, *1/*3 - 3,6%, *2/*2 - 14,3%, *3/*3 - 1,8%, *3/*4 - 1,8% in DMP group and *1/*1 - 58,1%, *1/*2 - 36,2%, *1/*3 - 3,8%, *2/*2 - 1,9% in controls. The prevalence of alleles in children with DMP was: *1 - 65,2%, *2 - 29,4%, *3 - 4,5%, *4 - 1,9% while in control group: *1 - 78,1%, *2 - 20%, *3 -1,9%. Additionally IL1RN*2 allele homozygosity showed eight fold higher risk for DMP (OR=8,58; 95%CI, 1,73 to 42,48; p=0,008). No association between *IL1RN* genotypes and response to steroid therapy or frequency of relapses was observed in the study group.

Our results suggest that IL1RN*2 homozygosity predisposes to diffuse mesangial proliferation in Polish children.

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OUABAIN PROTECTS AGAINST SHIGA TOXIN INDUCED RENAL TUBULAR CELL APOPTOSIS

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Context: Though typical Hemolytic Uremic Syndrome - mainly caused by Shiga toxin (Stx) produced by Escherichia coli - is a major cause of acute renal failure in children, the available treatments remain symptomatic. The aim of our experimental study was to determine whether ouabain (OB) at non-inhibitive concentrations could decrease the shigatoxin-induced apoptotic level.

Methods: Experiments were performed in rat proximal tubule cells (RPTC) cultured with Stx 2-4ng/mL, and treated with OB 5-10 nM. Group comparison was measured with the Apoptotic index, DNA fragmentation, and Fluorescence activated cell sorter (FACS). Immunoprecipitation and immunostaining techniques were used to determine the pathway of the antiapototic effect of OB.

Results: Stx 3-4 ng/mL significantly increased the apoptotic index in comparison to the control group. OB 5 nM significantly decreased the apoptotic index in RPTC exposed to Stx 3- 4 ng/mL (Apotptotic index %: Stx3 6.4±3.2 versus Stx3+OB 1.5±2.4, p=0.003; Stx4 8.6±8.9 vs. 2.1±1.3, $p< 10^{-4}$). It also decreased the level of DNA. FACS analyses demonstrated that OB drastically protected RPTC from Stx cytotoxins. Furthermore, immunoprecipitation as well as specific immunostaining showed that OB's protective effect was mediated through the Na, K-ATPase /IP3R interaction and triggering NFkB activity.

Conclusion: Our results state that ouabain may be an interesting therapeutic agent to reduce kidney damage in children with HUS.

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A NOVEL ROLE FOR CD2AP IN NORMAL PODOCYTE DIFFERENTIATION

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Background: CD2AP is a multifunctional adaptor molecule, binding other key podocyte proteins within the slit-diaphragm complex.

Methods: The cellular phenotype of conditionally immortalized wild-type (WT) and CD2AP mutant podocytes was compared by light microscopy. Immunoflourescence and western blot was then used to examine the expression of characteristic podocyte markers nephrin, podocin, CD2AP, PAX2 WT1 as well as WTIP and mesenchymal markers fibronectin and α-SMA in *CD2AP* mutant podocytes. To investigate differences in localisation of WTIP further, nuclear and cytoplasmic fractions were isolated from each cell line and nuclear/cytoplasmic expression ratios compared.

Results: In contrast to WT podocytes, *CD2AP* mutant demonstrated spindle shaped fibroblast like morphology similar to *WT1* mutatant podocytes and were unable to form recognizable cell-cell contacts. Although nephrin, CD2AP, podocin and WT1 were expressed at comparable levels in both cell lines, mesenchymal markers fibronectin and α-SMA were significantly overexpressed in CD2AP mutants compared with WT. Western blot and immunoflourescence data showed that PAX-2 was also upregulated in CD2AP mutant cells in keeping with a WT1-related defect. Immunofluorescence staining confirmed that WTIP co-localized at the cell membrane in WT podocytes, whereas in mutant cells WTIP expression was primarily nuclear. This observation was confirmed by a significant increase

(*p=0.03*) in the nuclear/cytoplasmic ratio of WTIP expression in CD2AP mutants.

Conclusion: a role for CD2AP in maintainance of the normal differentiated podocyte phenotype. This may be partly mediated through WT1. Our findings have clear implications for a novel role for CD2AP in development and progression of glomerular disease.

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MATERNAL DEPRESSION: IMPLICATION FOR ASTHMA MANAGEMENT IN CHILDREN

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Aim: To identify the relationship between maternal depression, the health and well being of children with asthma, and the role of the pediatric nurse.

Method: Review of the medical and nursing literature.

Results: Adult depression is a leading cause of disease burden throughout the world. In the United States undiagnosed and untreated maternal depression has been found to not only have significant psychological and social implications for the family system, but children of depressed mothers are at risk for serious developmental, behavioral, and emotional problems as well as non-adherence with medical management plans, increased morbidity from chronic conditions such as asthma, poor health care utilization, greater rates of emergency department and sick visits, greater use of inpatient and specialty services, and lower rates of well-child care visits and pediatric preventive practices such as basic safety.

Conclusion: The significance of depression on child and adolescent health mandates that pediatric providers learn more about the incidence, prevalence, associated risk factors, symptomotology and screening tools for maternal depression. If pediatric nurses were more knowledgeable regarding the symptoms of depression they could detect this clinical problem and educate mothers regarding the significance of their mental health on asthma management in children and refer mothers for mental health services.

This presentation will review current literature regarding maternal depression, its incidence, prevalence, associated correlates, and its implications for child health and asthma management. Suggestions for screening mothers for depression and alterations in health care management plans for their children will be given.

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"ERGOCOACH", CAN THEY DECLINE PHYSICAL LOAD?

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Background: Dutch law, concerning working circumstances, requires employers to take care of safety, health and welfare of their employees. In 2001 the University Medical Centres in the Netherlands had an agreement to decrease absenteeism and disability of their employees. Better working circumstances will have a positive outcome on motivation and can lead to a higher retirement age, without problems. Measures directly designed to the place of work are the most effective. We therefore trained nurses in the Wilhelmina Children's Hospital in Utrecht, the Netherlands, in physical load. When certificated they became "ergocoach".

Aim: Ergocoaches advice there colleagues to create a better posture during work and are responsible for choosing and advising about the right tools needed.

Implications for practice: While working in Neonatal Intensive Care Unit (NICU) nurses often stand or sit in a posture that can cause pain in the neck, shoulder and arm area, also know as Repetitive Strain Injury (RSI). Ergocoaches have made an inventory of the problems on physical load on the NICU and tried to find solutions. They give advice about posture, are consulted in case of reintegration and organize educational sessions. In addition posters, emphasizing correct posture, were developed and spread out.

Most important however, is changing attitude. If nurses notice that a better working position prevents or declines RSI, they will be motivated to change their behavior.

Conclusions: Ergocoaches are value to the team, they deliver an important contribution to prevent and decrease absenteeism and disability.