LACK OF ASSOCIATION BETWEEN RS1800471 POLYMORPHISM OF TGFB1 GENE, SERUM TGF-BETA1 LEVEL AND CHRONIC KIDNEY DISEASE PROGRESSION.

K. Kiliś-Pstrusińska[1], A. Mastalerz-Migas[2] , D. Zwolińska[1] ,W. Grzeszczak[3], and Study Group[4]

[1]Dept. of Paediatric Nephrology, Wroclaw Medical University, Wrocław;

[2]Dept. of Family Medicine, Wroclaw Medical University, Wrocław; ul. Syrkomli 1, 51-141 Wrocław, agnieszka.migas@gmail.com

[3]Dept. of Internal Medicine, Diabetology and Nephrology, Silesian Medical University, Zabrze;

[4] Study Group: K. Zachwieja , Dept. of Paediatric Nephrology, Dialysis Unit, UJ CM, Kraków; J. Zachwieja, Dept. of Pediatric Cardiology and Nephrology, Medical University, Poznań; K. Madziarska, Dep. and Clinic of Nephrology and Transplantation Medicine, Wroclaw Medical University, Wrocław; L. Hyla Klekot, Pediatrics and Oncology Center, Chorzów; Poland.

Aim. The aim of the study was to investigate whether rs1800471 polymorphism in the *TGFB1* gene is associated with the development and progression of non-diabetic chronic kidney disease (CKD). Moreover, we analysed serum TGF-beta1 concentration in CKD patients, its association with that polymorphism and CKD progression.

Material and Methods. We applied two different approaches. Firstly, a family based study was carried out comprised of 109 CKD patients and their 218 healthy parents, using the transmission/disequilibrium test. Rs1800471 polymorphism and serum TGF-beta1 level were determined in all subjects. Serum TGF-beta1 concentration was also measured in 40 healthy controls. Secondly, we performed a case-control orientated study to determine whether rs1800471 polymorphism and other factors influence the progression of renal impairment.

Results. No relationships were found between rs1800471 polymorphism allele transfer and CKD incidence and progression. Serum TGF-beta1 level was significantly higher in the CKD patients than in the controls.

Conclusions. Rs1800471 polymorphism in *TGFB1* gene does not have an impact on the development and progression of CKD caused by primary glomerulopathy and chronic interstitial nephritis. The increased serum TGF-beta1 concentration in the CKD patients may suggest its role in the pathomechanism of the disease. Circulating TGF-beta1 level is determined multifactorally, not by rs1800471 polymorphism in *TGFB1* gene.