

**FP17****Link between nephrolithiasis and the metabolic syndrome?**

C. Dzien, C. Dzien-Bischinger, A. Dzien

Medical Center Hentschelhof, Innsbruck, Austria

Objectives: The incidence of nephrolithiasis is given in maens at 5%.The aim of our study was to investigate this incidence and to find possible correlations with daily used routine parameters and comorbidities.

Methods: In order to answer this question, a database collected by a medical outdoorcenter was evaluated. During a period of 12 years (1992-2014) 14640 patients attended our outdoor center, women N=8697, men N=6043.All of them were consecutively admitted to our medical center for diagnostic and therapeutic procedures, clinical and laboratory results were taken in all patients including gender, age, body mass index BMI, RR-syst, RR-diast, creatinine, glomerular filtration rate GFR using Cockcroft-Gault formula, Na⁺, K⁺, Ca²⁺, Mg²⁺, f-glucose, cholesterol, HDL-chol, LDL-chol, triglyceride, TSH (thyroid-stimulating hormone).During this period we have collected 140582 ICD-10 diagnoses.We compered 261 patientes with nephrolithiasis group I (Gr I) N = 261, aged(54.89 +/-5.34) years, women N = 114, men N = 147 to a matched controle group (Gr II) of N = 890 patients, aged (54,02+/- 6,06) women N = 443, men N = 447.

Results: The diagnosis of nephrolithiasis is provided with , years (49.3a +/-19.25), median 48.3a. The incidence of nephrolithiasis in our population was 0,2%.The comorbidity of Gr I with 17.9 diagnoses per patient was significantly higher compared with Gr II with 12.2 diagnoses per patient.29% of Gr I patients have diabetes mellitus 2b compared with 15% in Gr II .Between Gr I and Gr II we see significant differences (p<0,05) for body size (176 +/- -9.14) vs (142 +/--8.91), BCM (26.9 +/-7.21) vs (28.53 +/- 7.57), RR-sys (140.00 mmHg +/- 21.66) vs (135 mmHg +/-19.9), RR-dias (87.00 mmHg +/- 10.47) vs(83.00 mmHg +/- 10.45), uric acid (5.31mg/dl +/- 1.78 vs. 4.93 mg/dl +/-1.59) ,creatinine (1.05 mg/dl +/- 0.27) vs (0.97 mg/dl +/- 0.27) , HDL-cholesterol (54.07 mg/dl +/- 16.38) vs (59.30 mg/dl +/- 16.5)

Conclusion: In a medical outdoor center in Innsbruck nephrolithiasis shows with 0.2% a lower incidence than reported in the literature. The nephrolithiasis patients are more labor intensive because of the significantly higher comorbidity in particular a high proportion of diabetes mellitus 2b compared to the control group.

Our data shows possible connections between nephrolithiasis and the metabolic syndrom.The early manifestation of nephrolithiasis may be the reason for the missing difference in f-glucose and triglyceride values.