SUMMARY

Objective:
Risk of renal carcinoma is minimal 10 x higher in group of patients in terminal stadium of renal failure (end stage kidney disease – ESKD). We have only some information about chromosomal changes in renal tubules, from which rise renal carcinoma, and about pathogenesis of renal carcinoma, which seems to be different from carcinoma in common population.
Aim of the study:
In clinical part we valorize characteristic signs of renal carcinoma in ESKD by using of statistic methods. In experimental part we can explain pathogenesis of this carcinoma by analysis of selective chromosomal aberations.
Material, methods:
In 2000 – 2007 were 184 patients with ESKD in care of transplant centre and nephrologic ambulation of Faculty hospital Plze_. In 15 patients we diagnose renal carcinoma. In this group we valorize: age, gender, causation of renal failure and dialysis duration. Age, gender and type of renal carcinoma we confront with carcinoma in common population. In experimental part we valorize numerical aberations in chromosome 7, 17 and Y of tubular epithelium using fluorescent hybridization in situ (FISH).
Results:
We have 15 patients in average age 55.7 ± 11.5 years, long of during dialyzation was 78 ± 54 months. We do not find dependence between causation of renal failure and genesis of renal carcinoma and dependence on age of patients with ESKD and common population with renal carcinoma. We find dependence on male gender, long of dialysis duration. Dominant type of renal carcinoma was papillary renal cell carcinoma and was more common than in general population. Long of dispenzarization (to year 2008) is 31 ± 15 (16-66) months. Only 1 patient with ruptured of papillary renal cell carcinoma (category pT3aN2M0) died for generalization, second patient for cardiac failure (nephrectomy and resection of aortal aneurysma). We provided FISH analysis in 11 causes. We find chromosomal aberations in tubules with hyperplastic or dysplastic changes. Trisomy of 7th chromozome was in 6 causes, trisomy of 17th chromozome was in 8 causes, the both together in 5 causes. Aberation of Y chromozome was in 2 causes.
Conclusions:
Renal carcinoma in patients with ESKD is more often than in common population and sonographic screeening in period of 2 years is necessary. They relate to long of dialysis duration and are more often in male. Trisomy of 7th and 17th chromosome is early aberation in dysplastic tubules. Aberation of Y chromosome is the second step in genesis of papillary renal cell carcinoma. Etiopathogenesis will be different from general population. The most common type is papillary renal cell carcinoma, the second clear cell carcinoma. We do not know if transplantation decrease risk of renal carcinoma.