

# 3<sup>RD</sup> WORLD NEPHROLOGY CONGRESS & 4<sup>th</sup> International Conference on CANCER RESEARCH

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## **Investigation of mechanisms that are involved in the pathogenesis of diabetic angiopathy and nephropathy and development of indicators of scouting diagnosis of the above complications**

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To evaluate the role of extracellular matrix-associated (Glycosaminoglycans - GAGs, tissue growth factor - CTGF), angiogenic (VEGF) and inflammatory factors (MCP-1, CD40, IFN- $\gamma$ ) in the development of diabetic nephropathy in type 1 diabetes (T1DM). Plasma and urine samples from 30 T1DM patients and 20 healthy controls were used to measure the levels of CTGF, VEGF, MCP-1, CD40 and IFN- $\gamma$  by ELISA. Plasma and urine GAGs were measured using a spectrophotometric method. Plasma levels of GAGs and CD40 and MCP-1 and also urine levels of GAGs and CTGF were significantly elevated in

normoalbuminuric T1DM patients. A tendency to higher plasma VEGF levels was found in patients compared to controls. The urine/plasma GAGs ratio of T1DM patients was almost similar to that of healthy subjects, whereas the urine/plasma CTGF ratio was about three times greater in diabetic patients compared to healthy subjects. Increased GAGs and CTGF excretion are evident in T1DM normalalbuminuric juveniles, possibly reflecting early renal injury signs, before the initiation of albuminuria.

### **Biography**

Ellina Olga completed her PhD from University of Athens in 2011. She is now working as a nephrologist in Konstantopoulou General Hospital, Greece.

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