

CHANGES OF ANGIOPOIETINS CONCENTRATIONS IN PATIENTS ON HEMODIALYSIS WITH AND WITHOUT NEOPLASTIC DISEASE AND AFTER KIDNEY TRANSPLANT

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ANG-1, ANG-2 and VEGF are the factors involved in angiogenesis. Epidemiological data suggesting an increased frequency of neoplastic diseases, especially in patients after kidney transplant, inspired us to study this problem.

The study involved 84 patients, divided into 5 groups: patients on hemodialysis without neoplastic disease (HD), patients on hemodialysis with neoplastic disease (HD+NPL), kidney transplant recipients (KTX), patients with neoplastic disease and healthy kidneys (NPL) and a control group (CTR). In all enrolled patients ANG-1, ANG-2 and VEGF levels were measured and additional lab tests were performed.

ANG-2 concentration was significantly increased in all HD patients. The most pronounced increase in ANG-2 level was observed in HD+NPL group. ANG-1 was downregulated in all groups but HD+NPL. The lowest ANG-1 level was observed in HD patients. After successful transplantation ANG-2 concentration was normalized, while ANG-1 concentration remained low. VEGF level was stable. In all groups changes in ANG-1/ANG-2 ratio in favor of ANG-2 were observed in comparison to controls. The changes were most pronounced in HD and even more in HD+NPL patients. A significant excess of ANG-2 and a deficiency of ANG-1 in HD patients may potentially compromise neoangiogenesis and protect against development of neoplastic disease.