

Euro Nephrology 2019: Association of Visfatin with Chronic Kidney Disease in patients with and without Diabetes

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Introduction:

Chronic kidney disease (CKD) has become a global public health threat. The irreversible nature of the disease, its association with significant morbidity and mortality as well as the cost of renal replacement therapy leads to a large burden for health care providers, particularly in developing countries like Egypt. The kidneys' primary employment is to sift additional water and squanders through of your blood to make pee. To keep your body working appropriately, the kidneys balance the salts and minerals, for example, calcium, phosphorus, sodium, and potassium—that course in the blood. Your kidneys additionally make hormones that assist control with bleeding pressure, make red platelets, and keep your bones solid. Kidney infection frequently can deteriorate after some time and may prompt kidney disappointment. On the off chance that your kidneys come up short, you will require dialysis or a kidney transplant to keep up your wellbeing. The sooner you realize you have kidney ailment, the sooner you can make changes to ensure your kidneys. Incessant kidney infection, additionally called constant kidney disappointment, portrays the slow loss of kidney work. Your kidneys channel squanders and overabundance liquids from your blood, which are then discharged in your pee. At the point when interminable kidney ailment arrives at a propelled stage, perilous degrees of liquid, electrolytes and squanders can develop in your body. In the beginning phases of constant kidney ailment, you may have hardly any signs or indications. Incessant kidney sickness may not get evident until your kidney work is essentially impeded. Treatment for incessant kidney malady centers on easing back the movement of the kidney harm, for the most part by controlling the fundamental reason. Constant kidney illness can advance to end-stage kidney disappointment, which is deadly without counterfeit separating (dialysis) or a kidney transplant. Chronic kidney disease incorporates conditions that harm your kidneys and abatement their capacity to keep you solid by carrying out the responsibilities recorded. On the off chance that kidney infection deteriorates, squanders can work to elevated levels in your blood and cause you to feel debilitated. You may create difficulties like hypertension, pallor (low blood check), feeble bones, poor wholesome wellbeing and nerve harm. Additionally, kidney infection builds your danger of having heart and vein illness. These issues may happen gradually over an extensive stretch of time. Constant kidney infection might be brought about by diabetes, hypertension and different issues. Early identification and treatment can regularly shield interminable kidney sickness from deteriorating. At the point when kidney ailment advances, it might in the end lead to

kidney disappointment, which requires dialysis or a kidney transplant to look after life.

Objective:

To find a non-invasive method to evaluate association of serum visfatin with chronic kidney disease secondary to diabetic nephropathy and compare to patients with chronic kidney disease secondary to other causes.

Methods:

Ninety individuals including 30 healthy controls and 60 patients of CKD were included in this study. Patients with CKD were further grouped based on etiology of CKD into 30 diabetic patients and 30 non-diabetic patients. Patients with type 1 diabetes mellitus, urinary tract infection, urolithiasis, liver cirrhosis, stroke, ischemic heart disease, and rheumatoid arthritis were excluded. Measurement of serum visfatin was done through ELISA Kit (Elabscience pharmaceuticals).

Results:

Visfatin concentration was significantly high in patients with CKD compared to controls ($p < 0.001$). No significant difference in Visfatin concentrations between patients of CKD with and without diabetes was detected ($p > 0.05$). Visfatin concentration was significantly high in patients with CKD stage 2 compared to CKD stage 1 ($p < 0.001$).

Conclusion:

The present study confirms the association of visfatin with CKD, however further studies at molecular level to check its expression within renal tissue may clarify its definitive role in CKD.