New research could help in the treatment of kidney disease

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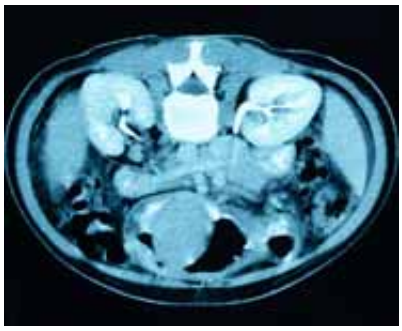

A CAT scan image of human internal organs.

New research could have major implications for the understanding and treatment of an important kidney disease. Researchers have found there are two genes that are very strongly associated with the disease.

The study by a multi-national European consortium chaired by Professor Peter Mathieson, Dean of the Faculty of Medicine at the University of Bristol is published in the New England Journal of Medicine (*NEJM*).

The paper describes precise genetic analysis of an important form of kidney disease, idiopathic membranous nephropathy, in patients from three separate European cohorts.

Idiopathic membranous nephropathy is a major cause of kidney disease in adults but is not fully understood.

The researchers found there are two genes that are very strongly associated with kidney disease, and this is replicated precisely in three different European populations.

The findings will allow a better understanding of the cause of the disease, the genetic prediction of who is likely to be affected, the prediction of likelihood of recurrence of the disease in a kidney transplant and ultimately the design of more logical approaches to therapy.

Professor Mathieson said: "The work is the result of a multi-national European consortium and highlights the power of collaboration and of modern genetic technology.

"Our findings suggest a way of understanding this disease and explain how genes play an important role in the human immune system and in autoimmune disease."

The study performed independent genetic analysis in patients with idiopathic membranous nephropathy from three populations of white ancestry (75 French, 146 Dutch, and 335 British patients).

The diagnosis of idiopathic membranous nephropathy was established by renal biopsy and the patients were compared with racially matched control subjects and population structure.

More information: Risk HLA-DQA1 and PLA2R1 Alleles and Idiopathic Membranous Nephropathy, Horia C. Stanescu, et al. *New England Journal of Medicine*, published 17 February 2011.

Provided by University of Bristol