Landmark paper on IgA nephropathy – new findings may lead to novel therapeutic approaches

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IgA nephropathy (IgAN) is the most common form of glomerulonephritis and can progress to end stage renal disease (ESRD). So far, its pathogenesis has been rather unclear. Now a genome-wide association study (GWAS) shed some more light on the development of the illness and provided new insights. The study that included 20,612 European and East Asian patients with IgAN identified six new genome-wide significant associations, four in ITGAM-ITGAX, VAV3 and CARD9 and two new independent signals at HLA-DQB1 and DEFA and, furthermore, replicated the nine previously reported signals, including known SNPs in the HLA-DQB1 and DEFA loci.

As a result, it was shown that the cumulative burden of risk alleles was strongly associated with age at disease onset. Besides, most loci were either directly associated with risk of inflammatory bowel disease (IBD) or maintenance of the intestinal epithelial barrier and response to mucosal pathogens. The geospatial distribution of risk alleles was highly suggestive of multi-locus adaptation, and genetic risk correlated strongly with variation in local pathogens, suggesting a possible role for host-intestinal pathogen interactions in shaping the genetic landscape of IgAN.

“This is a landmark paper”, comments Prof. Rosanna Coppo, Italy, head of the ERA-EDTA Immunonephrology Working Group. “It is not only the by far largest genome-wide association study on IgA nephropathy, but the discovery of new risk loci implicates genes involved in immunity against intestinal pathogens. This finding might lead to novel therapeutic approaches in the future. We are very proud that our working group has established a close collaboration with this study group.”

Interested to read the full paper? Just send a copy of your press card to press@era-edta.org and ask for the pdf.
About ERA-EDTA

With more than 7,000 members, the ERA-EDTA ("European Renal Association – European Dialysis and Transplant Association") is one of the biggest nephrology associations worldwide and one of the most important and prestigious European Medical Associations. It supports basic and clinical research in the fields of clinical nephrology, dialysis, renal transplantation and related subjects. The ERA-EDTA supports a number of studies as well as research groups and has founded a special "Fellowship Programme" for young investigators as well as grant programmes. In order to involve young nephrologists in all activities of the ERA-EDTA the Council decided to create a Young Nephrologists’ Platform (YNP). Besides, it has established various research networks and different working groups to promote the collaboration of nephrologists with other medical disciplines (e.g. cardiology, immunology). Furthermore, a "European Renal Best Practice" (ERBP) advisory board has been established by the ERA-EDTA to draw up and publish guidelines and position statements. Another important goal of the ERA-EDTA is education: several series of CME-courses as well as the annual congress offer an attractive scientific programme to cover the need of continuous medical education for doctors working in the fields of nephrology, dialysis and transplantation. The association’s journals, NDT (Nephrology, Dialysis, Transplantation) and ckj (Clinical Kidney Journal), are currently the leading nephrology journals in Europe. The ERA-EDTA Registry is a large epidemiologic database comparing countries by assessing nephrology practice throughout Europe. Finally, ERA-EDTA is member of the European Kidney Health Alliance (EKHA), a consortium of renal societies that actively interacts with the European Parliament. For more information please visit www.era-edta.org