

Copenhagen, May 24, 2018

## **Danish Cohort Study shows pre-eclampsia associated with chronic kidney disease later in life**

**Pre-eclampsia (PE), a hypertensive disorder of pregnancy often characterized by proteinuria, has previously been associated with later end-stage renal disease. At the ERA-EDTA Congress in Copenhagen, a nationwide register-based cohort study will be presented, which investigated associations between pre-eclampsia and incident post-partum chronic kidney disease in Denmark.**

Pre-eclampsia is one of the most dangerous complications that can arise during pregnancy. The main features are high blood pressure and proteinuria. These core symptoms are indications in themselves of the key role played by the kidneys in this disorder and show how important the interface is between obstetrics/midwifery and nephrology. Close collaboration is particularly important in the postpartum care of patients, too, because patients have a higher risk of suffering from kidney disease after giving birth.

The experts of the SerumInstitut, Department of Epidemiology Research, and Rigshospitalet, Department of Nephrology, Copenhagen, used the Danish national health registers to identify all women with pregnancies lasting  $\geq 20$  weeks in Denmark, from 1978 to 2015. Altogether, files of 1,072,330 women were analyzed (average follow-up time: 18.6 years/woman). During this time, 3,901 women developed Chronic Kidney Disease (CKD). Compared with women without a history of pre-eclampsia who had delivered in the same gestational age interval, women with a history of pre-eclampsia had significantly higher rates of postpartum CKD, especially, if they had suffered from early pre-term pre-eclampsia. The earlier pre-eclampsia occurred in the pregnancy, the higher was the risk: In those women who had suffered from early pre-term preeclampsia, the risk of developing kidney disease was nearly 4-fold (HR 3.93), while it was nearly 3-fold in women who had suffered from late pre-term pre-eclampsia (HR 2.81) and 2-fold in women who had suffered from term pre-eclampsia (HR 2.27).

Associations for glomerular diseases years after delivery were especially striking, but associations for unspecified chronic kidney impairment and hypertensive kidney disease were also strong. Associations between any pre-eclampsia and unspecified chronic kidney impairment and glomerular disease were much stronger within five years of pregnancy than

five or more years after pregnancy. In contrast, associations with hypertensive kidney disease and chronic tubulointerstitial nephritis were more constant over time.

“The findings show that preeclampsia increases the risk of kidney diseases significantly and is associated with several types of CKD later in life. For unspecified chronic kidney impairment and glomerular disease, the risk is particularly high in the first five years after pregnancy”, explains Doctor Mette Brimnes Damholt from the Rigshospitalet. These women therefore need follow up until totally normalized and some need coordinated nephrological care postpartum, so that any renal disease is quickly discovered and treated, and so that the need for renal replacement therapy can be delayed for as long as possible.

**Journalists are invited to attend the congress. A press conference will take place on Friday, May 25, 09.30 – 10.30 am (Room 19/Bella Center).**

[1] Jonas H. Kristensen, Saima Basit, Jan Wohlfahrt et al. PREECLAMPSIA AND THE RISK OF RENAL DISEASE: ERA-EDTA 2018; Publication Number: FO061

#### **About ERA-EDTA**

With more than 7,500 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. It also 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 its activities, ERA-EDTA has created the "Young Nephrologists' Platform" (YNP), a very active committee whose board includes members who are 40 years old or younger. In addition, it has established various 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 was established by the ERA-EDTA to draw up and publish guidelines and position statements. Another important goal of the ERA-EDTA is education: The series of CME courses combined with the annual congress offer an attractive scientific programme to cover the need for 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; furthermore NDT-Educational is the online educational journal of the society, with free access for all users, as well as being a very important and useful feature of the NDT-Educational "Literature Review". The ERA-EDTA Registry is a large epidemiologic database comparing countries by assessing nephrology practices throughout Europe. ENP, the European Nephrology Portal, is the latest new initiative of ERA-EDTA, where all those interested in the activities of the Society can find everything that is happening, all in one place. Finally, ERA-EDTA is a member of the European Kidney Health Alliance (EKHA), a consortium of patients, nurses and foundations relating to renal issues that actively interacts with the European Parliament. For more information, please visit [www.era-edta.org](http://www.era-edta.org)