Parma, Italy, June 5, 2020

Are dialysis patients at particular risk? The Italian experience

Professor Mario Cozzolino, Milan, shares experience from the coronavirus ‘epicenter’ In Italy

ABSTRACT: More than 20% of patients in Italy who died of COVID-19 had chronic kidney disease, and nearly 2% of the victims were dialysis patients. Kidney disease thus appears to be a more significant risk factor – more significant, for example, than pre-existing chronic obstructive pulmonary disease (COPD). As long as there is no vaccine or effective treatment, kidney patients must therefore be given special protection.

COVID-19 has been spreading fast in many European countries and the end of the epidemic cannot be claimed, before there is a vaccine or effective treatment. In Italy, nearly 30,000 patients have died so far, most of them in the regions of Lombardy (more than 50%) and Emilia Romagna. Looking at the patients’ characteristics it becomes clear that older people, especially, were at high risk of dying of COVID-19. More than 12,000 of the deceased were aged between 80 and 89, and a total of over 25,000 of the victims were over 70 years of age. The most commonly observed comorbidities in SARS-COV-2-positive deceased patients were hypertension (68%) and type-2 diabetes (30%). These diseases were often presented then by the media as risk factors for severe COVID-19 conditions. However, this poses the ‘chicken or egg’
question as to which comes first. Hypertension affects one in three people over 50 and one in two over 60, with the rate increasing with age. The median age of patients in Italy who died of COVID-19 was 80 years, so the prevalence of hypertension among the fatalities is roughly the same as in this age group. The same is true of diabetes: „One third of the elderly population has diabetes and three quarters of the elderly population has pre-diabetes or diabetes” [1]. It is unclear in that respect whether these two common diseases are separate risk factors, or are more likely to be co-factors of the powerful risk factor ‘age’.

What is striking, however, is that more than 20% of the COVID-19 patients in Italy who died had chronic kidney disease, and nearly 2% were dialysis patients. This is a high percentage, considering that only around 50,000 of 60 million Italians are dialysis patients. Pre-existing kidney injury thus appears to increase significantly the risk of severe progression and death. The figures from Italy show that the risk of dying of COVID-19 was increased 2.6-fold in hemodialysis patients. In patients on peritoneal dialysis, the risk was even increased by a factor of 3.5, and in patients with kidney transplants by a factor of 1.8.

“Kidney patients are a very vulnerable group that must be given special protection,” explained Professor Mario Cozzolino at the press conference in the run-up to the ERA-EDTA Congress. “Dialysis facilities must adhere to strict hygiene rules and should raise awareness among patients of the significantly higher risk they face. First, we have to take steps to ensure that dialysis patients do not catch the disease – and, second, infected patients must be handled with care and a special focus must be placed on stopping the spread of the virus.”

This also means that kidney patients and staff on dialysis units must be tested more frequently for COVID-19. It is essential that governments take steps to ensure that these critical facilities have sufficient test kits and protective material. “Although the situation has eased, it is not clear whether a second wave of the disease might occur. We should do everything we can to be prepared for that and to counteract it,” said the Italian expert.


About ERA-EDTA
With more than 7,000 active members, the ERA-EDTA is one of the biggest nephrology associations worldwide leading European nephrology and one of the most important European Medical Associations. It organizes annual congresses and other educational and scientific activities. ERA-EDTA also produces guidelines, collects data, and performs epidemiological studies through its Registry. The Society supports fellowships and educational/research
projects through its committees and working groups. Its publications are NDT, CKJ (Open Access journal), and the online educational journal NDT-Educational. Website www.era-edta.org