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PRESS INFORMATION

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## CKD patients do benefit from an intensive blood pressure control!

The SPRINT study [1], a randomized trial with more than 9,000 patients, has shown that people with an increased cardiovascular risk – among them patients with chronic kidney disease (CKD) – benefit from an intensive blood pressure control. The primary outcome (a composite endpoint of myocardial infarction, acute coronary syndrome, stroke, heart failure, or death from cardiovascular causes) was significantly better in the intensively treated arm of the study. Thus, the cardiovascular benefit of the lower blood pressure target extended to CKD patients. A meta-analysis of 16 studies published in “The Lancet” this year [2] came to the same result: The lower the blood pressure, the lower the cardiovascular risk in high-risk patients.

On the other hand, no benefit was seen in SPRINT on the composite renal outcome. According to Prof. Carmine Zoccali, ERA-EDTA Council member and NDT Editor-in-Chief, this fact led to a common misinterpretation of the study. “Because no renal benefits were seen, many doctors believed that there is no advantage of a more intensive blood pressure control in CKD patients. But renal benefits are only one side of the coin, the other side are the cardiovascular benefits”, explains Zoccali. “CKD patients have an excessively high cardiovascular mortality – and therefore every measure should be taken to reduce it.” CKD patients with the same characteristics of those enrolled in SPRINT, i.e. CKD patients >50 years at relatively high risk for death and cardiovascular events will have a cardiovascular benefit if their BP is reduced toward <120 mmHg.

But patients with advanced CKD (GFR <20/ml/min/1.73m<sup>2</sup>) or proteinuria 1g/day were excluded from SPRINT. Even though cardiovascular benefit in these patients seems likely, the effectiveness of the <120 mmHg target in this high risk subpopulation needs to be tested within a new randomized trial. Besides, the blood pressure lowering has to be done with caution. The intensified anti-hypertensive treatment might cause more side-effects – and is not tolerated by every patient. “A stricter surveillance of the more intensively treated patients is needed.

Besides, we have to weigh up the risk of potential side effects against the potential benefit individually in each patient”, so Zoccali. “But although SPRINT [1] as well as the meta-analysis published in “The Lancet” [2] weren’t CKD trials, we should not ignore the fact, that the patients in these studies – among them CKD patients – showed cardiovascular benefits of a stricter blood pressure control!”

[1] The SPRINT Research Group. Engl J Med 2015; 373:2103-2116

[2] XIE X et al. Lancet 2016; 387: 435–43