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Country: **Germany**

Titel of the project: **Atrial fibrillation in dialysis patients: Prevent strokes and hemorrhages**

Project details

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Award amount: €100,000

Dialysis patients have a clearly increased risk of a stroke and have atrial fibrillation more frequently.. Oral anticoagulation is associated in them with increased mortality and rate of hemorrhage: at the same time there is lack of validation of the risk score established in the general population for dialysis patients. A high-quality prospective patient register should create the database to improve the treatment of these patients.

Increasing renal insufficiency is associated with an increase of the risk of a stroke: In the United States Renal Data System (USRDS) the annual incidence of strokes rises in comparison with the matched patients with healthy kidneys (2.6%) to 9.6% in patients with chronic renal insufficiency and to 15.1% in patients with terminal renal insufficiency. The presence of atrial fibrillation thus increases the incidence of strokes in dialysis patients by 1.6 times (1). At the same time the prevalence of atrial fibrillation in this group of patients is estimated to be 4-7 times as high as in the general population. Use of an oral anticoagulant for preventing ischemic stroke is proven in the case of atrial fibrillation without more severe restriction of renal function. The CHA2DS2-Vasc and the HAS-BLED Score are used for estimating the risk (ESC Guidelines 2010). The CHA2DS2-Vasc-Score does not take into account the presence of renal insufficiency and both scores are not validated for dialysis patients.. Here a large retrospective analysis from treatment data by Fresenius Medical Care North America (n=41425) shows that taking warfarin is associated with increased mortality in dialysis patients (hazard ratio 1.27) (2).

Unfortunately the indication for oral anticoagulation is not known for the majority of the patients examined in this study and coexistent atrial fibrillation is documented only in 21% of the treated patients. A systematic review based on 28 publications on oral anticoagulation of dialysis patients found a doubling of the risk of hemorrhage (3). At the same time there is lack of validation of the risk score established in the general population in this group of patients. The applicant speaks for a study team consisting of nephrologists and cardiologists (project head: Prof. Dr. T. Lewalter, Bonn) and within the scope of a prospective register study under the title "Prospective German Outcome Registry on oral Anticoagulation in Dialysis patients: (GORAD)* with an aimed at number of patients of 1000 patients, would like to create a detailed database on the prevalence, the present therapeutic procedure and the outcome of dialysis patients with atrial fibrillation, which should serve as basis for validation and/or further development of the risk score established in the general population and as a solid basis for later randomized studies. Here the study covers all pharmacological and non-pharmacological treatment strategies.

Study planning is based on close cooperation with the Association of German Kidney Centers (DN e. V.), the members of which look after around 50% of German dialysis patients in around 500 centers. Effective data acquisition is guaranteed by the use of existing structures of the association for quality assurance which are provided through the association's own Scientific Institute of Nephrology (WiNe e.V.). There exists a detailed study protocol, for which there is a positive ethics vote of the North Rhine Medical Chamber. Ethics applications to the medical chambers of Westfalen-Lippe and Baden-Württemberg are being prepared. The funds applied for serve as cost contribution for the structures of data acquisition and evaluation to the WiNe e. V. as well as financing of a part-time position in the study secretariat. The study is planned to start on 01.04.2011. The register should be kept for at least 5 years. The project should intensify the attention of therapists to the special features of the therapy of atrial fibrillation in dialysis patients and moreover acquire urgently necessary data for improving the therapy. The success of the project is measured by the number of patients included and the size and quality of the acquired data. 1.USRDS 2005 Annual Data Report, www.usrds.org 2.Chan KE et al. J Am Soc Nephrol. 2009. 20: 872. 3. Elliott MJ et al. Am J Kidney Dis. 2007. 50: 433.

Audience

Type

- Healthcare professionals
- General public

Location

Germany, Europe