

Vol. 10 (1): 215-218 (2020)

SILENT BRAIN INFARCTIONS IN HEMODIALYSIS PATIENTS

Fjona Nasto^{1*}, Arjeta Dedej¹, Nestor Thereska¹

^{1*}American Hospital, Tirana, Albania;

*Corresponding author Fjona Nasto, e-mail: fnasto@spitaliamerikan.com;

Received January 2019; Accepted February 2020; Published March 2020;

DOI: <https://doi.org/10.31407/ijeess10.129>

ABSTRACT

End Stage Renal Disease ESRD is associated with an increases risk of cerebrovascular accidents with significant morbidity and mortality. Stroke is the third most common cause of cardiovascular disease death in hemodialysis patients. Chronic renal disease is an independent risk factor for stroke in the general population. The American Heart Association and American Stroke Association have redefined a stroke as brain spinal or retinal cell death attributable to ischemia, based on pathological, imaging, other objective evidence, and /or clinical evidence. Furthermore, the new definition includes the concept of “silent infarction/hemorrhage” to take into account. Lesions were discovered on neuroimaging on neuro-pathological examination without a history of acute neurological dysfunction attributed to the lesion. Objective: To highlight the risk factors for stroke in our dialysis population, to see the prevalence of stroke in this population and to find evidence of “silent infarcts. We conducted a retrospective, qualitative and descriptive study which involved 1732 patients from 5 different centers in the American Hospital starting November 2008 to December 2019. We evidenced 70 different case of cerebrovascular accidents. Also, we took a control group of 70 dialysis patients to compare, (those we did not select it preferentially, but we selected according to the ordinal registrations into the centers) A total number of 1732 of patients were observed during November 2008 till December 2019. Of these 70 patients were diagnosed with cerebrovascular accidents. The mean age was 57.6 years. 33patients were females (47%) and 37 patients were males (53%). 23 patients were younger than 55 years old and 47 patients (68%) were older than 55 years. The mean age of the control group is 53.69 years. The vascular access in 22 patients was AVF (fistula 30.4 %) and 48 had a central venous catheter (69.6%). In the control group there were 52 AVF (74.3%),1 GAV, and 17 CVC (24.3%). The average hemoglobin levels in the stroke group was 9.3 g/dl compared to 11.4 g/dl of the control group. We also performed CT scan in the control group to find evidence of “silent infarcts”. The results were surprising. The prevalence of stroke among hemodialysis patients in our center resulted 4.01%. The patients with stroke tended to be older, with lower hemoglobin values and the central venous catheter represented the vascular access in the majority of the patients (69.6%). Vascular access may increase stroke risk by affecting cerebral hemodynamics. In control group hypertension was present in 57 % of patients and only 2 patients were diabetics in the control group. The presence of silent brain infarcts increases the risk of symptomatic stroke and dementia. All dialysis patient should have more preventive management, especially for hypertension.

Key words: stroke, silent brain infarction, dialysis