

## Assessment of physical activity in chronic hemodialysis patients in the nephrology and hemodialysis department CHU IBN ROCHD

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### Introduction:

Physical activity is often reduced in chronic hemodialysis patients. Studies having evaluated hemodialysis reveal a significant sedentary lifestyle. which is associated with excess mortality. Conversely, the benefits in terms of morbidity and mortality from physical activity are numerous. The fight against sedentary lifestyles in hemodialysis patients must be one of the objectives of healthcare teams. For this reason, our study aims to assess physical inactivity using a physical activity score from DIJON in chronic hemodialysis patients and to identify the factors linked to a decrease in physical activity in them and to propose programs aimed at to encourage PA as well as exercises adapted to the hemodialysis patient.

### Materials and methods :

This is a descriptive and analytical cross-sectional study conducted during the month of January 2020, in the nephrology and hemodialysis department of CHU IBN ROCHD. We used the Dijon questionnaire translated into Arabic to measure the PA taking into account daily, sports or leisure activities. The PA level benchmarks are 0–10 (low), 10–20 (medium), and 20–30 (high).

### Results:

Our study included 71 patients. The average age was 46.5 years with extremes ranging from 16 to 93 years, there is a slight male predominance with a sex ratio of 1.1. Initial nephropathy was undetermined nephropathy in 53.5%, glomerular in 29.5%, diabetic in 7% and hypertensive in 1.4%. The age of the periodic hemodialysis treatment in our patients varied from 1 month to 44 years, with an average duration of 17.3 years. 91.5% of patients had an arteriovenous fistula as a vascular approach, 8.4% of patients were dialyzed on a catheter.

The overall level of physical activity was high only in 4.5% of patients, while it was low in 61.3% and moderate in 34% of patients.

The study of the relationship between the decrease in physical activity and different demographic, clinical and paraclinical parameters had revealed that the decrease in physical activity was significantly correlated with seniority on hemodialysis, gender, the advanced age, the different degrees of anemia, and the cardiovascular affections, on the other hand no significant correlation was found between the decrease in physical activity and hypocalcemia, hyperphosphatemia, and hyperparathyroidism.

### Conclusion:

Our results show that the level of physical activity is linked to many parameters, some of which can be modified. Prescribing an adapted and personalized program would improve the prognosis related to co-morbidities and the quality of life of our patients.