

Received date: 24.04.2023 | Accepted date: 27.04.2023 | Published date: 07.07.2023

## A Cross sectional Study of PRO BNP level in saudi dialysis population and its outcome

**Muhammad Awais**

Sligo University Hospital, Ireland

**Introduction:** Mean amino-terminal pro-brain natriuretic peptide (NT-probnp) level has not been studied well in Saudi hemodialysis population and the effect of high flux hemodialysis membrane in comparison to Peritoneal dialysis patients. This study conducted in Prince Sultan Military Medical City gives us a cross sectional view about the significance of NT-pro BNP level in both hemodialysis and peritoneal dialysis subjects.

**Method:** 50 hemodialysis patients and 50 patients from Peritoneal dialysis group were selected to study the NT probnp levels from February 2022 to January 2023. We categorized the patients in both groups with age above 70 yrs and below respectively. Patients either on peritoneal dialysis or hemodialysis who were having history of ischemic heart disease or valvular heart disease were excluded from the study. Patients who were doing either automated peritoneal dialysis(APD) or Continuous Ambulatory Peritoneal Dialysis(CAPD) were included in the study. We included patients dialyzing through FX80/Fx100 dialyzer in hemodialysis population. Data analysis was done by Statistical analysis software (SAS) version 9.2.

**Results:** Among peritoneal dialysis patients average population greater than 70 years comprised of 5 (10%) females and 7 males (14%) with mean age 77.1. Patients less than 70yrs comprised of 12 females (24%) and 21 males (42%) with mean age 41.2. We found NT-probnp 26000 pg/ml in Male patients above 70 years and >12500pg/ml in Females respectively Similarly those with age less than 70 years had an average NT-probnp of >17000pg/ml and 25000 pg/ml in male and female subjects respectively. In Hemodialysis population above 70 years we had 16 males (32%) and 10 females(20%) with mean age 73.5. However we had 10 (20%) males and 14 (28%) in less than 70 years age group with mean age 50.8. We observed the NT-probnp levels >5000pg/ml and > 640 pg/ml in Male and female subjects doing dialysis greater than 70 years age respectively. Similarly we found NT-probnp levels >11000 pg/ml and 8500pg/ml on average in male and females hemodialysis patients less than 70years age group. We found that on average NT-probnp levels were significantly higher in peritoneal dialysis patients in comparison to hemodialysis patients.

**Conclusion:** We hereby conclude that NT-probnp levels in peritoneal dialysis patients over 70 years without any ischemic heart disease, volume overload is high and low in hemodialysis patients due to membrane adsorption effect.

### Recent Publications:

1. Awais M, Abdal M, Gilligan P, "A rare case of Acute Generalised Exanthematous pustulosis presentation to an emergency department following Levetricetam administration". Poster Presentation at Beaumont Hospital Translational Research Awards 2021 held on 12th October 2021.
2. Awais M, Khokhar O Salman, Akhtar MF, Chattah FS, Bokhari SR, Recurrent mesenteric cyst in ESRD patient on maintenance hemodialysis. Journal of American Society of Nephrology (JASN) Kidney week October 2020. PUB 220
3. Akhtar F, Rehman S, Hameed N, Bokhari MR, Saleem K M, Sardar Z, Malik AM, Awais M, Bokhari SR " Impact of Neuro linguistic Programming and Coaching on Employee Learning" Pakistan Journal of Medical & Health Sciences (P J M H S ) Vol 13, No 4, OCT-DEC 2019 974. [https://pjmhsonline.com/2019/oct\\_dec/](https://pjmhsonline.com/2019/oct_dec/)
4. Bokhari SR, Inayat F, Jawa A, Virk H, Awais M, Hussain N, Hassan GH, Ahmad HI, Chaudhary HS, Adil A, Haider A, Figueredo VM, Rangaswami j, Assir M Z K, "Cardiovascular Autonomic Neuropathy and its Association with Cardiovascular and All-cause mortality in Patients with End-stage Renal Disease" DOI:10.7759/cureus.3243
5. Awais M, Finn S, Gill I, Brain Injury 2023 A retrospective view of 100 patients with acquired brain injury and spinal cord injury in pediatric unit of National rehabilitation Hospital, IBIA 2023.

doc.awais@gmail.com