Chronic Hemodialysis and Unique challenges to Women - Menstrual Disturbances and its Association with Hyperprolactinemia, Nutritional and Mental Status, and their impact on Quality of Life - A Prospective Observational Study

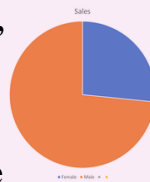## ELAYAPERUMAL INDHUMATHI

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INTRODUCTION

- Women's health in kidney disease continues to remain understudied
- This study aims to evaluate the menstrual, nutritional and mental health status and its impact on quality of life of women undergoing chronic haemodialysis at a tertiary care centre in South India.

METHODS

- This prospective observational study was conducted in India where 150 patients were undergoing chronic hemodialysis, between July 2023 to June 2024.
- All women undergoing hemodialysis for more than 3 months were included.
- Serum prolactin level, assessment of nutrition by Malnutrition Inflammation Score (MIS), depression by Beck Depression Inventory, quality of life by SF-36 questionnaire were collected.
- Statistical analysis was performed using SPSS, version 20.0 for windows.

RESULTS

- Of 150 chronic hemodialysis patients, 40 (26.6%) were women with a mean age of 51.1±11.35years and 38(95%) were younger than 65 years.
- Diabetes mellitus in nearly half of the patients (n=23,57.5%), hypertension in most of them(n=32,80%), CAD and hypothyroidism in 12 patients (30%) each
- Most of them had AV fistula as the primary vascular access (95%).
- Eight patients (20%) were underweight by BMI
  30% overweight and obese

Anaemia and Bone health

- Hemoglobin levels were below 10.5 g/dl in all patients. (FIG-1)
- Low bone turnover disease was observed in 45% while 32.5% had high bone turn over disease.
- Low iPTH significantly associated with vitamin D deficiency (p < .02).

MENSTRUAL DISTURBANCES

- Irregular menstrual periods occurred in 12 patients (30%) and premature menopause in 3 (7.5%) of the study group.
- Significant association was found between Irregular menstrual periods and hyperprolactinemia (p=.001). (FIG-2)

MALNUTRITION AND DEPRESSION

- Depression affected all of them with moderate to severe in 92.5%.
- Malnutrition, as assessed by the MIS score was diagnosed in all patients with moderate to severe 82.5%.
- Severe malnutrition (p < .01) and severe depression (p < .02) were associated with a significantly lower quality of life (FIG-3)
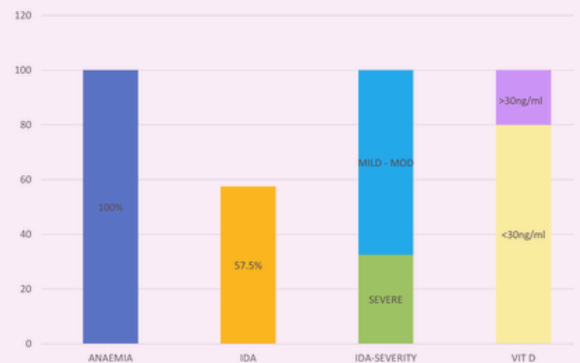

FIG 1

FIG 2

FIG 3

CONCLUSION

- In women undergoing chronic hemodialysis, 45% had low bone turnover disease
- Vitamin D and iron deficiency were common
- Menstrual disturbances were present in 37.5% and strongly correlated with hyperprolactinemia.
- Malnutrition and depression were universal among all and related significantly to poor quality of life.