

Prevalance of anemia in dialysis patients

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ABSTRACT

Anemia is a very common complication in patients with end stage renal disease(ESRD).Clinical trials indicate that improving anemia improves cognitive and sexual function, general well-being, and exercise capacity and reduces the need for blood transfusions. We suspect that in our population on maintenance hemodialysis anemia remains undertreated.

Materials and Methods:

It was a cross sectional study to determine the prevalence of anemia in patients on maintenance hemodialysis in Department of Nephrology Shaikh Zayed Hospital Lahore. Both male and female from aged 17 years to 70 years whether or not receiving EPO were included in this study. Patients with acute kidney injury or kidney transplant dysfunction leading to dialysis were excluded. Anemia was defined as Hb< 13.5gm/dl in men and Hb<12gm/dl in women.

RESULTS

Out of 128 patients, 61 (47.65%) were male and 67 (42.35%) were female. The mean age of the patients was 46.61 years (male: 44.85; female: 48.37). 56 out of 61 males(91.8%) and 61 out of 67 females(91%) had anemia. Mean Hb was found to be 10.59 and 10.07gm/dl in males and females respectively.

CONCLUSIONS

We concluded that the prevalence of anemia in both male and female ESRD patients on hemodialysis is very high and was present in more than 90% of the patients.

Key Words: Anemia, End Stage Renal Disease, Hemodialysis, Erythropoeitin.

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INTRODUCTION

Anemia is a very common complication in patients with end stage renal disease(ESRD). It is multifactorial, but primarily it is because of inadequate production of Erythropoietin. Anemia is an important cause of physical and mental impairments in dialysis patients including malaise, fatigue, weakness, dyspnea, impaired cognition, and other symptoms. Now a days anemia in CKD patients is treated by Erythropoietin (EPO) along with iron and folic acid supplementation. Clinical trials indicate that improving anemia improves cognitive and sexual function, general well-being, and exercise capacity and reduces the need for blood transfusions¹⁻³.

Materials and Methods:

It was a cross sectional study to determine the prevalence of anemia in patients on maintenance hemodialysis in Department of Nephrology Shaikh Zayed Hospital Lahore during the months of March 2017. Both male and female from aged 17 years to 70 years whether or not receiving EPO were included in this study. Patients with acute kidney injury or kidney transplant dysfunction leading to dialysis were excluded. Anemia was defined as Hb< 13.5gm/dl in men and Hb<12gm/dl in women as per KDIGO guidelines⁴.

RESULTS

The demographic data is presented in table 1. 91.8% of males (n=56) and 91% of females (n=61) had anemia. Mean Hb was found to be 10.59 and 10.07gm/dl in males and females respectively.

DISCUSSION

Anemia is considered to be marker of bad prognosis in patients on maintenance hemodialysis ⁵.Anemia has also been implicated as a contributing factor in many of the symptoms associated with reduced kidney function. These

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include fatigue, depression, reduced exercise tolerance, dyspnea, and cardiovascular consequences, such as left ventricular hypertrophy (LVH) and left ventricular systolic dysfunction⁶. It is also associated with an increased risk of morbidity and mortality principally due to cardiac disease and stroke⁷⁻⁸ and with an increased risk of hospitalization, hospital length of stay, and mortality in patients with CKD⁹⁻¹⁰.

Table 1: Baseline characteristics of patients	
Total Number of Subjects	128
Males:	61 (47.65%)
Females:	67 (42.35%)
Mean age (years)	46.61
Males:	44.85
Females:	48.37

In our study, almost 90% of the population on maintenance hemodialysis were found to be anemic. This is a dismal statistic. A loco-regional study reported placed the prevalence of anemia at around 50%¹¹. However, this study used a lower cut off as definition of anemia (≤ 10 g/dL) whereas in our study we used a higher cut off. According to one local study almost 90% of the patients were found to be anemic at the initiation of renal replacement therapy however our study was carried out on patients receiving maintenance hemodialysis¹². It is clear from these observations that anemia in hemodialysis population is a persistent and recurring problem and requires constant vigilance on the part of the treating nephrologist.

CONCLUSION

Anemia in patients on maintenance hemodialysis remains prevalent. There is a need for urgent attention to this aspect of CKD to improve outcomes.

DISCLOSURE

All the authors declared no conflict of interest.

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