

INFLUENCE OF INTERDIALYTIC WEIGHT GAIN ON UREA REDUCTION RATIO IN CKD PATIENTS

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ABSTRACT : To compare the Urea reduction rate of renal failure patients undergoing hemodialysis twice a week versus hemodialysis done thrice a week and to analyse the influence of inter dialytic weight gain on Urea Reduction Ratio in chronic kidney disease patients for the same group. 50 Renal failure patients on hemodialysis in Nephrology unit in Sree Balaji Medical College and Hospital were included with age ranging from 15 to 75 years. The patients were divided into two groups depending on the number of dialysis session per week as twice weekly or thrice weekly. Urea, creatinine is estimated and urea reduction rate is calculated. Interdialytic weight gain was measured. There is significant reduction in URR in twice weekly dialysis group and more decrease in urea after dialysis in thrice weekly group with statistical significance (p value = 0.000). Urea reduction ratio is less in patients with interdialytic weight gain more than 4Kg. In renal failure patients on hemodialysis, it is mandatory to do thrice weekly dialysis for all patients so as to get good control and decrease morbidity and mortality.

Key words : Renal failure, inter dialytic weight, urea reduction ratio, morbidity, mortality.

INTRODUCTION

Excretory capacity of kidney is influenced in chronic kidney disease causing gathering of most waste items delivered in the body particularly urea. These waste items can be expelled from blood in kidney failure patients through dialysis. The amplexness of dialysis is estimated intermittently for the most part once per month, by gathering blood toward the beginning and toward the end of dialysis. The degrees of urea in the two examples are compared. It is surveyed by Urea Reduction Ratio. Direct estimation of URR has been proposed as a less difficult substitute for progressively complex conditions to ascertain dialysis portion (Jindal *et al*, 1987; Basile *et al*, 1990).

There is weight gain in between two dialysis sessions. The weight increase might be because of improved nutrition or due to water retention. In hemodialysis patients, more noteworthy weight addition has expanded hazard for cardiovascular grimness and mortality (Chertow *et al*, 1999; Sarkar *et al*, 2006). Excessive interdialytic weight gain (IDWG) is generally identified with an over-burden of sodium, water and is the most significant factor for blood vessel hypertension in dialysis (Kimmel *et al*, 2000).

MATERIALS AND METHODS

50 Renal disappointment patients experiencing hemodialysis in Nephrology unit in Sree Balaji Medical College and Hospital were incorporated into the examination with age running from 15 to 75 years. The patients were partitioned into two gatherings relying upon the quantity of dialysis session every week as twice week by week or thrice week by week.

Urea, creatinine was taken in the pre dialysis blood test. Thirty minutes after dialysis was finished, blood was taken and urea was repeated in the patients. Urea is evaluated by adjusted berthlot strategy; creatinine is assessed by jaffe's technique. Bury dialytic weight addition was taken in every one of the patients (The weight is taken after a dialysis session. Weight is again taken before the following dialysis and distinction between the two is interdialytic weight gain). It was partitioned into three gatherings. (weight increase under 2Kg, 2-4Kg and more than 4Kg.)

Composed educated assent was gotten from all patients.

Inclusion criteria : Associated Diabetes Mellitus, Hypertension, Cardiac Failure patients, Hepatitis C Virus infection.