



ORIGINAL RESEARCH PAPER

Medicine

A STUDY ON CLINICAL AND AETIOLOGICAL PROFILE OF CHRONIC RENAL FAILURE

KEY WORDS:

Dr. Rana R. K. Singh*

Assistant Professor, Department of Medicine, Patna Medical College & Hospital, Patna, Bihar *Corresponding Author

Dr.(Prof.) M. P. Singh

Professor & Head, Department of Medicine, Patna Medical College & Hospital, Patna, Bihar

ABSTRACT

Chronic kidney disease is a chronic progressive and irreversible loss of renal function with decrease in G.F.R. Chronic renal failure typically corresponds to CKD stage 3-5 with irreversible reduction in nephron number. Aims and objectives was to assess clinical profile and determine aetiology of chronic renal failure. One hundred patients with CRF were included in Department of Medicine, Patna Medical College & Hospital, Patna in last one year. Patients of CKD stage 3-5 and of age between 16 to 60 years were included in this study. Pregnant patients, patients with HIV, hepatitis B, hepatitis C and, patients on chemo or radiotherapy were excluded from the study. After detailed history and examination, an aetiological diagnosis was made in each patient as far as possible. CRF is widespread disease all over the country and abroad. Its etiological profile is variable. The clinical manifestations are different at different stages of disease. Detection of disease and its severity is also important because certain etiological cause may completely be removed and patient may be completely cured. In this study different clinical manifestations and its relation to the severity of the disease has been discussed.

INTRODUCTION :-

Chronic kidney disease is a chronic progressive and irreversible loss of renal function with decrease in G.F.R. Chronic renal failure typically corresponds to CKD stage 3-5 with irreversible reduction in nephron number. Kidney helps in regulation of BP and has got endocrine function. In most of the patients of CKD BP rise and there is change in hematocrit level leading to anaemia. The renal function is maintained by various parameters like urea, creatinine, serum electrolytes, phosphates, serum PTH, calcitriol, and others. When creatinine level rise up above 3 mg/dl, changes in the kidney become irreversible. In CKD almost all system of body affected like CNS, skin. Eyes, ENT, respiratory, CVS, GIT, Genitourinary, Neuromuscular etc. As there are various aetiological factors for CRF and its manifestations has been noted. By knowing aetiological factors, prevention and disease progression of CKD is possible.

AIMS AND OBJECTIVES :-

1. To assess clinical profile of patients with CRF.
2. To determine aetiology of CRF.

MATERIALS AND METHODS :-

Total One hundred patients with CRF reporting to OPD and IPD at Department Of Medicine, Patna Medical College & Hospital, Patna were included in the study. The study was conducted between February 2018 to January 2019 at PMCH/PATNA.

Criteria for selection of cases were

Inclusion criteria

- CKD stage 3-5.
- Age 16 to 60 years.
- Those who given informed consent for the study.

Exclusion criteria

- Pregnant patients.
- Patients with HIV, Hepatitis B, Hepatitis C.
- Patients on chemo or radiotherapy.

After detailed history and examination, an etiological diagnosis was made in each patient as far as possible. Creatinine clearance was obtained with crockroft gault formula.

OBSERVATIONS :-

(1) Age & Sex incidences

	Male	Female	Total
No. of patients	71	29	100
Mean age	44.99 years	47.1 years	46.04 years
Youngest patient	16 yrs.	21 yrs.	
Eldest patient	80 yrs.	90 yrs.	

M:F Ratio 2.44:1

CRF is found more commonly in male than female(M:F Ratio 2.44:1)

(2) Aetiology of CRF

Aetiology	Percentage
Chronic glomerulonephritis	23
Diabetic nephropathy	37
Hypertensive nephropathy	24
Obstructive uropathy	12
Polycystic kidney disease	02
Chronic pyelonephritis	02
Total	100

Diabetic nephropathy is most common cause of CRF and was found in 37% of cases followed by hypertensive nephropathy (24%) followed by chronic glomerulonephritis (23%).

(3) Haemoglobin level in CRF

Haemoglobin (in gm/dl)	Percentage
<5	05
5 to 10	81
>10	14

81% of patients were having Hb level 5-10 gm% and 5% patients with Hb level < 5gm% but 14 % of patients have Hb level > 10 gm%.

(4) Signs of CRF

Signs	Percentage
Pallor	90
Hypertension	75
Pedal edema	69
Nail changes	25
Pleural effusion	14
Ascites	12
Palpable kidney	6
Pulmonary edema	5
Skin changes	3
Peripheral neuropathy	1
Pericardial effusion	1

(5) Symptoms of CRF

Symptoms	Percentage
Pedal edema	79
Oliguria	73
Breathlessness	70
Erectile dysfunction	52

Vomiting	44
Anorexia	33
General weakness	28
Facial puffiness	25
Flank pain	21
Haematuria	21
Menstrual irregularities	20
Abdominal distension	14
Altered sensorium	10
Restless leg syndrome	10
Convulsions	6
Polyuria	4
Dysuria	3

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DISCUSSION :-

100 patients of CRF were studied in this study. These patients fulfilled the criteria set by the National Kidney foundation for diagnosis CRF. In this study, M:F ratio is 2.44:1 and mean age group was 46.04 years with age group 16 to 90 years of age. This study showed that prevalence of CKD as result of diabetes and hypertension is far lower in younger age group than adults above 30 years . in present study, high number of patients were to be diabetic (37%) and hypertensives (24%). This trend was similar to that reported by Dash & Agrawal in the study conducted at AIIMS/NEW DELHI. The haemoglobin level was below 10 g/dl in 86 % of patients. Lower haemoglobin may result from a loss of erythropoietin synthesis in the kidney. The most common symptoms in the present study were pedal edema (79%), oliguria (73%), breathlessness (70%), vomiting(44%), anorexia (32%). CNS symptoms like convulsions and altered sensorium were found in 6%and 10% patients respectively. The physical incapability is more common in CKD patients with deteriorating renal function as compared to normal person but the index of decreased GFR is not related to physical incapability. Quality of life was better in transplanted patients than the patients on maintenance haemodialysis. 32 % of the patients in this study reported anorexia. Anorexia in CRF is evidenced by decreased dietary protein intake which is the hallmark of CRF. The most common signs were pallor(90%), hypertension(75%),pedal edema(69%) and ascites (12%). Other signs like palpable kidney and pulmonary edema are less common.

SUMMARY :-

100 patients were studied in which 71 were males and 29 were females. Mean age of patients was 46.4 years. Diabetic nephropathy (37%) was most common cause of CRF followed by hypertensive nephropathy (24%) and chronic glomerulonephritis(23%). Most of the patients in our study were anemic with haemoglobin range in between 5-10 g/dl(81%). In 60% of patients serum creatinine level was in between 5.1 to 12 mg/dl. Hypoalbuminemia was seen in 43% of cases . 57% of cases have the value within 3.5-4 g/dl. Different clinical symptoms manifested in present study were pedal edema(79%), oliguria (73%), Breathlessness (70%), Erectile dysfunction (52%), Vomiting (44%), Anorexia (33%), General weakness (28%), Facial puffiness (25%), Flank pain (21%), Haematuria (21%), Menstrual irregularities(20%).

CONCLUSION :-

CRF is widespread disease all over the country and abroad. Its etiological profile is variable. The clinical manifestations are different at different stages of disease. Detection of disease and its severity is also important because certain etiological cause may completely be removed and patient may be completely cured. In this study different clinical manifestations and its relation to the severity of the disease has been discussed.

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