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Case Report on Chronic Renal Failure in Adults

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Introduction: CRF is either the presence of kidney damage for 3 months or longer. Kidney damage is defined as either pathologic abnormalities or markers of damage including abnormalities in blood or urine test or imaging studies. Chronic disease are defined broadly as conditions that last 1 year or more and require ongoing medical attention or limit activities of daily living or both. Chronic disease such as heart disease, cancer, and diabetes are the leading causes of death and disability in the individual. As renal function declines, the end products of protein metabolism (normally excreted in urine) accumulate in the blood. Uremia develops and adversely affects every system in the body the greater the buildup of waste products, the more pronounced the symptoms. The rate of decline in renal function and progression of end stage kidney disease is related to the underlying disorder.
Main Symptoms of CRF: The main signs and symptoms-Fever/cough/cold/abdominal pain/vomiting/loose stool/edema/giddiness/back pain. Abnormal blood loss in urine test, high blood pressure, weight loss for no reason, low red blood cell count (anemia), nausea, metal taste in your mouth, loss of appetite.
Diagnostic Evaluation: blood test: Hb-6.5gm%, total RBC count-3.5million/cu mm, HCT-28.4%, total WBC count-9.6/cu mm. monocytes-03%, granulocytes-85%, lymphocytes-10%,calcium-9.1mg/day, creatinine-urine test-71.8mg/dl, KFT- urea-111mg/dl, cretinine14.0, sodium 134mmol/l,

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potassium-6.5(pl. repeat), magnesium-2.4mmol/l, phosphorus-7.3mmol/l, RBS glucose-plasma random -222mmhg, uric acid -8.1mg/dl, urinary protein- 905mg/dl, bloodpressure-140/90mmhg.
Therapeutic interventions: inj. Levoflox 500mg IV OD, inj. ctri 1gm IV BD X 5days, inj. Pan 40mg IV OD, inj. Emset 4mg IV OD, inj. Insulin m(30/70) 18u(BFF)-0-12u(BD) inj. EPO 10000 IU SC post dialysis once per week, tab. Nicardia 20mg TDS, tab. Febuxostat 40mg OD, tab. Shelcal 500mg OD, tab. autrin OD, tab. Sevelamer 400mg BD, tab. Envas 5mg HS, tab. met XL 25mg OD.
Outcome: after treatment, the adult show improvement. His abdominal pain were relieved and his diabetes and hypertension were in control.
Causes: Due to some disease of infection the kidney can't do its works properly, the main cause of chronic renal failure is High blood pressure Blocked urinary tract. The chief causes of CRF include obstructive uropathy, primary glomerular diseases, reflux nephropathy and hypoplastic or dysplastic kidneys. Progressive hyperperfusion and hyerfilteration causes increasing glomerular injury and further renal damage. Symptoms of CRF is between 10-25% of normal. The four main causes of CRF are high blood pressure, chronic glomerulonephritis, high blood sugar, polycystic kidney disease.
Conclusion: My patient was a known case of chronic renal failure and he had complaint of irritation abdominal pain, back pain, giddiness. After getting proper treatment his condition was better than previous condition.

Keywords: Chronic renal failure; hypertension; giddiness; diabetes.

1. INTRODUCTION

The kidneys are retroperitoneal organs attached to the posterior abdominal wall. Three layers of tissue surround the kidneys, are renal capsule, adipose capsule, and renal fascia. Internally, the kidneys consist of a renal cortex, a renal medulla, renal pyramids, renal papillae, renal columns, major and minor calyees and a renal pelvis. Blood flow into the kidney through the renal artery and successively into segmental, interlobar, arcuate, and cortical radiate arteries. Vasomotor nerves from the sympathetic division of the autonomic nervous system supply kidney blood vessels, they help regulate the flow of blood through the kidney. When a patient has sustained enough kidney damage to require renal replacement therapy on a permanent basis, the patient has moved into the fifth and final stage of chronic kidney disease, also referred to as chronic renal failure [1-10].

2. PATIENT IDENTIFICATION

A male patient from Wardha was admitted to male medicine ward on 13th of February 2020 with chief complaint of abdominal pain, fever, cough, with a known case of chronic renal failure. He is 62kg and his height is 182cm.

2.1 Present Medical History

He is a known case of chronic renal failure with diabetes mellitus, hypertension, the male was inactive on admission.

2.2 Past Medical History

My patient was diagnosed to have apparently alright 6 months back he started complaining of back pain and has complain of gastritis since 2-3 months and has giddiness since 2 weeks, diabetes mellitus type-1 since 15years, hypertension since 3 weeks, no history of cold/cough/fever, no history of loose of stool, abdominal pain, vomiting, no history of pedal edema, no history of back pain no history of TB and HIV aids.

2.3 Family History

There are four members in the family. My patient was diagnosed to have chronic renal failure with diabetes mellitus and hypertension. His parents were not diagnosed to be carrier of diabetes mellitus and hypertension. Type of marriage of the parents is non – consanguineous marriage. All three members of the family were not having complaints in their health except for my patient who was being admitted in the hospital [11-21].

2.4 Past Interventions and Outcome

My patient was diagnosed with diabetes mellitus type-1 when he was of 10 years of old, from that time onwards he was he was taking his medications and due to this disease he got diagnosed chronic renal failure and the he was admitted to hospital time to time for treatment of the disease mostly hemodialysis. It was found

effective as the patient does not develop complications till then.

2.5 Clinical Finding

Fatigue, ammonia-smelling breath, foamy urine, difficulty urinating or frequent urination.

2.6 Etiology

Here are some causes chronic kidney disease include:

- Type 1 or type 2 diabetes.
- High blood pressure.
- Glomerulonephritis
- Blocked urinary tract
- Polycystic kidney

2.7 Physical Examination

There is not much abnormality found in head to toe examination. My patient is lead and thin and having dull look. He is weak and well cooperative. Though it is found that he chest inspection(ribcage for symmetry-symmetrical, movement-normal, sternorib joint skin integrity-maintained), palpation (to aid fremitus-normal), auscultation (respiratory tube-normal, heart rate-normal, breath sound-normal), percussion (pleural effusion-normal, pneumothorax-normal), abdomen (inspection-scar and patches are absent), palpation (abnormal masses are absent), auscultation (normal sound heart), percussion (gas and fluid collection are absent).

2.8 Diagnostic Assessment

blood test-Hb% 11.1gm%, total RBC count4.06millions/cu.mm, total WBC count 7500cu.mm, RDW13.2%, monocytes03%, granulocytes65%, lymphocytes30%, total platelet count2.56lacs/cu.mm, KFT (urine105mg/dl, creatinine11.6mg/dl, sodium134mmol/l, potassium4.5mmol/l), LFT(ALT(SGPT)29U/L, AST(SGOT)30U/L, albumin3.0g/dL, total bilirubin0.8mg/dl), phosphorus7.3mg/dl.

2.9 Therapeutic Intervention

Inj. Levoflox 500 mg IV OD (a/d) x days, inj. Ctri gm IV BD x 6 days, inj. Pan 40 mg IV OD, inj. Emset 4mg IV TDS, inj. Insulin m (30/70)18u (BFF)-0-12u(BD), inj. Epo 10000 iu sc post dialysis once a week, tab nicardio 20 mg TDS, tab febuxostat 40 mg OD, tab shelcal 500 mg OD, tab, tab. Autrin OD, tab. Sevelamer 400 mg BD, tab. Envas 5 mg HS, tab.met xl 25 mg OD 1-0-0.

3. DISCUSSION

A male was admitted to male medicine ward no. 24, AVBRH ruler hospital on 13th of February 2021 with the chief complaint of abdominal pain, fever, cough, giddiness. And Hb% less than normal level. H is known case of diabetes mellitus, hypertension which was diagnosed when he was since 15 years and 3 weeks. After some tests related to kidney disease like KFT and LFT he diagnosed chronic renal failure. As soon as he was admitted to hospital investigations were done and appropriate treatment were started. After getting treatment, he shows great improvement and the treatment was still going on till my last date of care.

Patient's data was collected in a profile from and the details were saved confidentially. The patient was diagnosed with chronic renal failure with diabetes and hypertension and the treatment was given.

3.1 Nursing Manegment

- Assessing intake and output chart
- Inviting a patient in dietary program
- Give explanation and information to the patient and his/her family.
- Provide emotional support to the patient and his/her family.

3.2 Nursing Care Of Chronic Patient

Nursing care of patients with chronic kidney disease including two types of care are direct care or supportive care.

In Direct care clinic or physician office are include depending upon patient condition. In direct care physician assess physical condition, provide primary care to patient at home or supportive care include counseling, provide guidance to patient to overcome the problem.

There are many ways to take care of a chronic patient some them are as follow:

- Let patient decide how they want to hear from you. If you reach the patient by the means they prefer, they are more likely to listen.

- Don't force the patient to do so and so on wait it will take time
- Incentivize with patients rewards
- Use of proper language should be there
- Encourage healthy habits.

Some nursing process include assessment, implementation, diagnosis and evaluation:

Step1:- identifying specific problems
Step2:- establishing goals
Step3:- defining the plan of action to achieve desired outcomes.
Step4:- implementing the plan and intervention.
Step5:- following up and evaluating outcomes.

4. CONCLUSION

Chronic renal failure is the most common case found in adults and in old age people, it is very important to diagnose in early stage so that the child will not develop complications from the disease. It is relatable disease if a person having diabetes mellitus type-1, with hypertension, at the early stage of age then the person is having the high risk of having this disease. It is also very important to take preventive measures like KFT and LFT test complete blood count test urine test, it helps to diagnosed it earlier is very important. My patient shows great improvement.

CONSENT AND ETHICAL APPROVAL

As per university standard guideline, participant consent and ethical approval have been collected and preserved by the authors

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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