

A case report on Chronic Kidney Disease and Role of Clinical Pharmacist

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ABSTRACT

Chronic kidney disease also called chronic renal failure is most commonly seen in the patients of hypertension and diabetes

Case Report

A female patient of age 60 years was admitted in a multispecialty hospital located in Warangal ,with the complaints of SOB, confusion, fever Since 3 days, she had a past medical history of HTN.

Discussion :

Patient's data was collected in a profile form and the details were saved confidentially. The patient was diagnosed with chronic kidney disease with HTN and the treatment was given.

Conclusion :

The patient was given a complete course and was given counseling for chronic kidney disease and the problem got resolved , hereby it shows the need of pharmacist in the area of patient care and quality treatment in the present scenario to expect quality of life.

Keywords: Chronic Kidney Disease, Clinical Pharmacist, Patient counseling

INTRODUCTION

Chronic kidney disease (CKD) or chronic renal failure {CRF} is a condition in which there is a reduction in rate of kidney function for over a period of months or years. In beginning there will be no symptoms. Later, edema, feeling tired, vomiting, loss of appetite or confusion may arise. Complications may include heart disease, HTN, bone disease, or anaemia. If there is no perfect therapeutic regimen it may lead to total renal system damage. CKD is very common and is mainly associated with ageing. The older you get, the more likely you are to have some degree of kidney disease. It is estimated that about one in five men and one in four women between the ages of 65 and 74 has some degree of CKD.

CKD is mostly associated with the effects caused by other chronic diseases, (hypertension) and diabetes mellitus type 2

It's seen commonly in population of India, Bangladesh, Sri Lanka and Pakistan) and black people than the other population. Higher rates of diabetes in south Asian people and high blood pressure in

African or Caribbean people are the main reasons for this condition.

CASE REPORT

A female patient of age 60 yrs was admitted into a multispecialty hospital with the chief complaints of SOB, confusion, fever Since 3 days, she had a past medical history of HTN. The clinical and laboratory findings of the patient were found to be

- Temp-100 F
- BP- 190/40mmHg
- pulse-85/min
- WBC- 15000cu/mm
- Urea - 149 mg%

Clinical symptoms

s.no	Clinical symptoms	Patient symptoms
1	HTN	+
2	Uraemia	+
3	Fever	+
4	Confusion	+

Classification of chronic kidney disease

Stage of CKD	GFR rate	description
1	>90ml/ min+haematuria /proteinuria Or structural damage	kidney damage with normal or increased GFR
2	60-89ml/min + proteinuria/ haematuria or structural damage	Slight decrease in GFR with other evidence of kidney damage
3a 3b	45-59ml/min 30-44ml/min	Moderate reduction in GFR with or without evidence of kidney damage
4	13-29ml/min	Severe reduction in GFR
5	<15ml/min	Kidney failure

DISCUSSION

Patient's data was collected in a profile form and the details were saved confidentially. The patient was diagnosed with chronic kidney disease with HTN and the treatment was started with

DRUGS:

Ranitidine	1amp	-IV -TID
Piperacillin /tazobactam	4.5g-	IV - BID
Furosemide-	50mg	-IV -TID
Ondansetron-	4g-	IV -BD
Insulin glargine	15mg	P/O -BD
Cyanocobalamin-	1amp	IV -OD
Nitrofurantoin-	100mg	P/O -BD

Present scenario in this case reveals that The patient had HTN which is not in control because of illiteracy and medication adherence to anti hypertensives, which lead to the present condition of the patient, then treatment initiated and patient counseling regarding life style modifications, drugs and their side effects with regular follow up .

PATIENT COUNSELING

Diet

A healthy diet is important for preventing chronic kidney disease (CKD). It will lower the amount of cholesterol in your blood and keep your blood pressure at a healthy level. Eat a balanced diet that

includes plenty of fresh fruit and vegetables (five portions a day) and whole grains.

Limit the amount of salt in your diet to no more than 6g (0.2oz) a day. Too much salt will increase your blood pressure. One teaspoonful of salt is equal to about 6g.

Avoid eating foods that are high in saturated fat because this will increase your cholesterol level.

Foods that are high in saturated fat include:

- meat pies
- sausages and fatty cuts of meat
- butter
- ghee (a type of butter often used in Indian cooking)
- lard
- cream
- hard cheese
- cakes and biscuits
- foods that contain coconut oil or palm oil
- Eating some foods that are high in unsaturated fat can help decrease your cholesterol level. Foods that are high in unsaturated fat include:

- oily fish
- avocados
- nuts and seeds
- sunflower oil
- rapeseed oil
- olive oil

Alcohol

Drinking excessive amounts of alcohol will cause your blood pressure to rise, as well as raising the cholesterol levels in your blood. Therefore, sticking to the recommended alcohol consumption limits is the best way to reduce your risk of developing high blood pressure (hypertension) and CKD.

The recommended limits for alcohol are:

- 21 standard drinks of alcohol a week for men
- 14 standard drinks of alcohol a week for women

A standard drink of alcohol is equal to about half a pint of normal strength beer, a small glass of wine or a pub measure of spirits. For more information,

Exercise

Regular exercise should help lower your blood pressure and reduce your risk of developing CKD.

At least 150 minutes (2 hours and 30 minutes) of moderate-intensity aerobic activity (i.e. cycling or fast walking) every week, is recommended.

Avoid nephrotoxins eg; NSAIDS etc

CONCLUSION

The patient was given a complete course and was given counseling for chronic kidney disease and the problem got resolved, hereby it shows the need of pharmacist in the area of patient care and quality treatment in the present scenario to expect quality of life

COMPREHENSIVE LISTING OF CLINICAL PHARMACY ACTIVITIES PERFORMED IN CKD AND ESRD PATIENTS

Medication review and monitoring of patient's pharmacotherapy regimen	Education and counseling	Disease management programmes	Further tasks
Taking a thorough medication history, including OTC drugs, herbal supplements, drugs prescribed by non-nephrologists, and CAM drugs	Provision of medical and therapeutic information for patients and other health care professionals	Basic clinical assessments during patient visits	Medication use evaluation
Medication review at different time points, such as at admission, during in-hospital treatment, during each dialysis session, and at discharge	Training regarding the administration of drugs (e.g. ESAs self-injections)	Ordering of laboratory tests	Audit measures
Matching computerised medication profiles with verbally obtained medication history	Counseling on side effects, interactions	Co-ordering of anaemia therapies and other drugs	
Medication order review and checking adherence to prescribing guidelines	Compiling of guidelines for proper drug use (e.g., iron and ESAs) and implementation of treatment algorithms (e.g., hyperlipidaemia, hypertension, and renoprotective drugs)	Co-prescribing within the scope of specific guidelines (e.g., anaemia management or lipid management)	
Development of discharge medication plans	Assessment and monitoring of compliance and adherence		
Identification of potential or actual DRPs			
Therapeutic recommendations (e.g. change of drugs, dose and/or interval adjustments, discontinuation of drugs, additional laboratory monitoring, nephrologist referral, addition of renoprotective drugs)			
Therapeutic monitoring (treatment, laboratory values, and specific drugs)			

Abbreviations: CAM: complementary and alternative medicines; CKD: chronic kidney disease; DRP: drug-related problem; ESA: erythropoiesis stimulating agent; ESRD: end-stage renal disease; HTN: Hypertension

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