International Journal of Homoeopathic Sciences

E-ISSN: 2616-4493
P-ISSN: 2616-4485
www.homoeopathicjournal.com
IJHS 2023; 7(2): 246-249
Received: 18-03-2023
Accepted: 20-04-2023

Dr. Aravind Akshan GK
Assistant Professor, Dept of Practice of Medicine, Govt Homoeopathic Medical College, Kozhikode, Kerala, India

Dr. Nashath P
Final Year PG, Dept of Practice of Medicine, Govt Homoeopathic Medical College, Kozhikode, Kerala, India

Corresponding Author:
Dr. Aravind Akshan GK
Assistant Professor, Dept of Practice of Medicine, Govt Homoeopathic Medical College, Kozhikode, Kerala, India

Use of homeopathic medicines in the treatment of albuminuria in patients with chronic kidney disease: A case series

Dr. Aravind Akshan GK and Dr. Nashath P

DOI: https://doi.org/10.33545/26164485.2023.v7.i2d.837

Abstract
Chronic kidney disease (CKD) is a global public health problem with increasing incidence, prevalence and adverse effects. The aetiology of CKD is multifactorial, including diabetes mellitus, hypertension, glomerulonephritis and other factors like dyslipidaemia, uric acid and renal calculi has implicated potential risk in development of chronic kidney disease. The initial and most common presentation which help us in diagnosing CKD and assessing the progression include eGFR and albuminuria. In this study we have considered albuminuria as the main predictor and evaluated all the patients before and after the homeopathic intervention.

We have administered individualised homoeopathic medicine following the detailed case taking, clinical examination, and evaluation and laboratory investigations. Within the 1 months of the treatment all the patients have showed improvement symptomatically, the patients were followed up for the rest of 3 months, and urine albumin creatinine ratio reassessed after the treatment. Clinical, laboratory investigation documentation of the patient's condition and post-intervention progress is available. As the study has conducted in a small number of patients in a short duration of time, we are uncertain to determine the effectiveness. For the effective result more high-quality clinical study among a larger population for a longer time duration is needed.

Keywords: Chronic kidney Disease (CKD), Albuminuria, Urine Albumin Creatinine Ratio (Urine ACR), Homeopathy.

Introduction

Chronic Kidney Disease (CKD) has evolved over time, but according to current international guidelines, it is defined as a reduction in renal function and a glomerular filtration rate (GFR) of less than 60 mL/min per 173 m2, all markers of kidney damage, or both, for at least 3 months, regardless of underlying cause. CKD criteria based on international guidelines, presence of any or both of the following for at least 3 months:

1. GFR < 60 mL/min per 1.73 sq. Metre (categories G3a–5).
2. Markers of kidney damage (1 or more).

- Albuminuria (albumin: creatinine ratio [ACR] ≥ 30mg/g).
- Urinary sediment abnormalities.
- Electrolyte or other abnormality due to tubular disorder.
- Abnormalities in histology.
- Structural abnormalities which in detected by imaging.
- A history of kidney transplantation [1].
- CKD may be caused by any condition which destroy normal structure and function of kidney, which include.

Diabetes Mellitus, or Diabetic nephropathy account - 40 % cases.
Hypertension or Hypertensive nephropathy account- 20% cases.
Chronic glomerulonephritis especially Ig A nephropathy – 20 % cases.
Other causes include chronic tubular interstitial nephritis caused by chronic pyelonephritis, infections, certain drugs, congenital disease of kidney like polycystic kidney disease and Alport Syndrome. Miscellaneous causes include renal artery stenosis or vasculitis.
Systemic disease like Amyloidosis, SLE, RA, Gout, Multiple myeloma [2].

The high symptom burden in CKD patients is a major public health concern. There is evidence that socioeconomic culture and low educational status are independent predictors of high symptom burden. Initially present as extreme fatigue, oedema, drowsiness, hypertension, muscular twitching, frothy urine etc. Uraemia and complications in advanced CKD (Stage 5 and Stage 5 with dialysis) such as anaemia, metabolic abnormalities, and fluid retention are the most likely explanations for high symptom burden in advanced disease [3].

Higher than normal urinary albumin excretion is observed in patients with type 2 diabetes. Moderately elevated albuminuria levels, so-called microalbuminuria, predict progressive loss of renal function up to diabetic nephropathy, as well as cardiovascular morbidity and mortality. The higher the proteinuria score, the higher the likelihood of renal and cardiovascular complications [5].

Long-term and uncontrolled high blood pressure leads to high intraglomerular pressure, which cause the impairment of glomerular filtration. Damage to the glomeruli results in increased protein filtration, resulting in abnormally elevated levels of protein in the urine (microalbuminuria, or proteinuria) [6].

Albumin is a major component of proteinuria in glomerular disease. The presence of persistent albumin in urine is a clear sign of glomerular abnormalities. Microalbuminuria represents the urinary excretion of small amounts of albumin that characterizes the very early stages of diabetic kidney disease. Albumin to creatinine ratio is the preferred method for detecting microalbuminuria [4].

Albuminuria is not only a predictor of the development and progression of diabetic and nondiabetic renal disease, but also a marker of endothelial dysfunction. Several recent studies have also shown that proteinuria is independently associated with mortality, even in patients with low estimated glomerular filtration rate (eGFR). Therefore, proteinuria is increasingly recognized as an important tool for risk stratification in chronic kidney disease (CKD) patients [8].

It has been hypothesized that increased albumin excretion is a net result of glomerular filtration and tubular reabsorption, with little filtration occurring under normal physiological conditions. An irreversible increase in albumin excretion is thought to increase glomerular hydraulic pressure, increase glomerular filtration coefficient, and alter glomerular membrane size and charge selectivity [7].

ACR is the preferred method for detecting microalbuminuria. Patients who progress from microalbuminuria to macroalbuminuria (300 mg or more per 24 hours) may progress to ESKD (end stage renal disease). However, many interventions have been shown to reduce risk and slow the progression of kidney disease when started early [4].

Diagnosis and investigation

Assessment of proteinuria is key to investigating chronic kidney disease (CKD), but there is uncertainty about the optimal method. Proteinuria reflecting glomerular injury [9].

The most useful biomarkers are eGFR and albuminuria. Unfortunately, measuring eGFR is time consuming and therefore GFR is usually estimated from equations that account for endogenous filtration markers such as serum creatinine (SCr) and cystatin C (CysC). Other biomarkers such as albuminuria may precede a decline in renal function and have been shown to have strong associations with disease progression and outcomes [10].

Increased urinary albumin excretion is an early symptom of chronic kidney disease due to diabetes, other glomerular diseases, and hypertensive nephrosclerosis. A random, non-timed "spot" urine sample is a good starting point. A first morning urine sample is preferred, but not required if it poses a significant inconvenience compared to a random sample. Results should be expressed as the ratio of albumin to creatinine [11].

High-risk groups should be tested for albuminuria. These include diabetics. Hypertension; family history of CKD; and medical or family history of CVD [11].

The three levels of albuminuria include an albumin to creatinine ratio (ACR)

- A1: ACR less than 30 mg/gm (less than 3.4 mg/mmol).
- A2: ACR 30 to 299 mg/gm (3.4 to 34 mg/mmol).
- A3: ACR greater than 300 mg/gm (greater than 34 mg/mmol) [12].

Materials and Methods

All patients were followed up in IPD/OPD of Govt Homeopathic Medical College, Kozhikode. Patients with albuminuria, who are meeting the criteria of CKD has taken for the study. During follow-up, reduction in albuminuria and symptoms were noted.

Case presentation

The following five cases were selected having urine ACR more than 30 mg/gm (microalbuminuria and macroalbuminuria), which all has a risk to progress.

Case 1

On February 20th 2021, patient 47-year-old female came to OPD, with tiredness and weakness for last six month, on history she is diabetic and not on regular medication, taking homeopathic medicines on and off. After complete history taking it was found that, all these complaints after attack of covid. Her BP 150/90 mmHg, afebrile. Her complaints about palpitation on physical exertion. She had a soft, non-distended abdomen and normal bowel sound and lab investigation her FBS was 298 mg/dl, in urine Routine examination albumin +, and sugar 1%, urine ACR 52. After analysis and evaluation, he was prescribed Acid phosphoricum 200 / 2 dose. On follow up she came on monthly basis, after two months 26/4, 17/7, 14/9/ 2021 she was repeated Acid phoshoricum 200 / 2 dos on each visit and followed up. Her urine ACR is reviewed 17.78 mg/gm. She was stable throughout the treatment.

Case 2

On January 2022, A 65-year-old male patient, came to OPD, with the complaint of frothy urine, on history he was diabetic 25 years back. He took allopathic medication, but he stopped after a 4 months medication. Later it was normal with slight fluctuation. Now his BP 150/80 mmHg, afebrile, no tachypnoea, pulse 70 beats per minute. Physical examination found nothing abnormal. His FBS was 131 mg/dl, PPBS 206 mg/dl. Serum creatinine 1.2 mg/dl. His ACR was 241.1 mg/g. After analysis and evaluation, he was given Acid phosphoricum 200 / 2 dos. On follow up he was repeated on monthly basis on account of his complaints and improvement. His urine ACR was repeated 241.1 mg/g.

Case 3

On march 2022, Male patient of age 75 years, came to OPD with joint pain of left low back, he is diabetic, hypertensive and dislipilaemic, he also has frothy urine on further case taking. His BP was 150/60 mmHg. Afebrile and slightly bilateral pedal oedema, no tachypnoea, no tachycardia, pulse 72 beats per minute. Systemic examination was normal with in limit. His FBS 140 mg/dl, creatinine 1.6 mg/dl, urine routine examination albumin ++, sugar nil. His ACR was 832.7 mg/g. As per the evaluation prescribed Apis mel 30/3 dos, and repeated after one month. On next follow up April gastric complaint, flatulence. He was given lycopodium 200/ 2 dos, and repeated on next follow up. His urine ACR was repeated reduced to 232 mg/g.

Case 4

Patient of age 75, male came to OPD with frothy urine for last six months. He is known to have diabetes for last 4 years, started medication after two year for six months, later he stopped medication. After detailed case taking, his BP was 132/70 mmHg, no pedal oedema, no tachypnoea, systemic examination no abnormality detected. Lab investigation shows FBS 245 mg/dl, creatinine 1.2 mg/dl, urine routine examination shows albumin +. His urine ACR 446 mg/g. After evaluation he was given Lycopodium 200/ 2 dos. And medicine was repeated according to the homoeopathic principle on the follow up visits. It was found that he is improving symptomatically, and his FBS coming to control, his urine ACR has reviewed and it dropped to 22.63 mg/gm.

Case 5

Patient 62 years, male presented to OPD with frothy urine, he is hypertensive and diabetic and on medication for last 10 years. On physical examination, he is having bilateral pedal oedema, BP was 130/86 mmHg, no tachypnoea, pulse 68 beats per minute. Systemic examination found normal. Lab investigations shows RBS 210 mg/dl, creatinine 1.6 mg/dl, urine routine examination shows, albumin faint trace, sugar nil. His urine ACR was 141 mg/g. After complete evaluation he was given Lycopodium 200, on the next visit he feel symptomatically better, Sac Lac was given. On the next month and coming months Lycopodium has repeated as there was some frothy urine still persisting. His urine ACR reviewed once more, it was found that it has dropped to 88 mg/gm.

Table 1: Analysis of Case

	Case 1	Case 2	Case 3	Case 4	Case 5
Presenting complaints	Tiredness & Weakness	Frothy Urine	Joint Pain	Frothy Urine	Frothy Urine
Co morbidities	Diabetes Mellites	Diabetes Mellites	Diabetes Mellites, Hypertension & Dyslipidaemia	Diabetes Mellites	Diabetes Mellites & Hypertension
ACR before (mg/g)	52	268	832.7	446	141
ACR before Scoring	1	2	3	2	1
ACR after (mg/g)	17.78	241.1	232	22.63	88
ACR after Scoring	0	1	1	1	1
Medicine Given	Acid Phos 200	Acid Phos 200	Apis mel 30	Lycopodium 200	Lycopodium 200

Diagnostic procedure and assessment

1. Cases are diagnosed as CKD according to the current international guidelines criteria [1].
2. The cases were classified according to the following assessment table of urine ACR [13].

Urine ACR has repeated after six months.

Table 2: Assessment table based on Albumin Creatinine Ratio (ACR)

ACR (mg/g)	Assessment	Score
< 30.97 (Female) < 22.12 (Male)	Normal	0
30.972 – 266.49 (Female) 22.12 – 265.49 (Male)	Moderately elevated Albuminuria	1
265.492 – 619.47	Dipstick test become positive from this point onwards	2
619.47 – 2654.87	Glomerular disease more likely more than 1 gram/24 hour	3
> 2654.87	Nephrotic range almost always glomerular disease more than 3.5 gm/24 hours	4

Therapeutic intervention and assessment

As shown in Table 2 all 5 cases were diagnosed with CKD based on medical history and laboratory findings, and albuminuria was scored and graded according to Table 2. All were prescribed individualized homeopathic medicines according to their symptoms, susceptibility and disease nature. Was given. Along with this symptom, they feel better.

Follow up

As a follow-up, the patient was followed for her 6 months. Five patients were treated in 2021-2022. Patients were examined every 2 weeks and drugs were repeated according to patient condition, homeopathic principles. Serum creatinine, FBS, and routine urinalysis were repeated during the review. Urinary ACR he repeated 3 months later.

Discussion

The use of individualized homeopathic medicines for albuminuria in CKD patients has been shown to be effective and beneficial. According to the currently available literature, only minor touch work has been done in this area. As you know, the mental and physical burden of CKD patients is enormous. Currently available treatments for

CKD include dialysis and kidney transplantation, which remain difficult for the healthcare industry to implement due to their economic burden. Prevention of CKD and slowing its progression is a major public health concern. Proteinuria, serum creatinine, and eGFR were identified as the most important potential predictors of risk of progression to renal disease. The main consequences of chronic kidney disease, regardless of cause, include progression to renal failure and cardiovascular disease (CVD). Some of these undesirable outcomes can be prevented or delayed with early detection and treatment. As albuminuria is an early and important predictor of CKD, early detection and action of albuminuria can save CKD patients from poor prognosis.

This is a challenge for the modern medical community, and its incidence is increasing exponentially with the shift to cosmopolitan lifestyles. Patients often have no viable non-interventional treatment options. Renal replacement therapy can prolong life, but quality of life is significantly impaired. After a detailed case evaluation considering symptoms and characteristics, homeopathic treatment with individualized medicines is very promising and economical.

In this study, we observed a decrease in urinary ACR after homeopathic intervention.

Conclusion

Individualised Homeopathic medicines for the treatment of albuminuria in CKD patients has shown a significant result. Homeopathy is cost-effective and safe to administer with no side effects or adverse events seen. It can offer significant improvement symptomatically in regard of quality of life.

Declaration of patient consent

The authors attest that they have all necessary patient permission documents on file. The patient(s) has/have granted permission in the form for his/her/its photos and other clinical data to be published in the journal.

Financial support and sponsorship: Nil.

Conflicts of Interest: There are not any conflicts of interest.

References

1. Webster AC, Nagler EV, Morton RL, Masson P. Chronic Kidney Disease. Lancet (London, England) [Internet]. 2017 Mar 25 [Cited 2022 Jun 2];389(10075):1238-52. Available from: https://pubmed.ncbi.nlm.nih.gov/27887750/
2. Jameson A, Fauci Dennis, Kasper S, DH, Longo Joseph LC. Harrison's principles of Internal Medicine. 19th edn. McGraw-Hill Education; c2015.
3. Brown SA, Tyrer FC, Clarke AL, Lloyd-Davies LH, Stein AG, Tarrant C, *et al.* Symptom burden in patients with chronic kidney disease not requiring renal replacement therapy. Clin Kidney J [Internet]. 2017 Dec 1 [Cited 2022 Jun 16];10(6):788. Available from: PMC/articles/PMC5716066/
4. Ahmed S, Laila T, Begum H, Moniruzzaman M. Proteinuria in Chronic Kidney Disease and its Management. Med Today. 2013 Aug 4;25(1):36-41.
5. De Zeeuw D. Albuminuria: A Target for Treatment of Type 2 Diabetic Nephropathy. Semin Nephrol. 2007 Mar;27(2):172-81.
6. Chronic Kidney Disease and Hypertension: A Destructive Combination [Internet], [Cited 2022 Jun 14]. Available from: https://www.uspharmacist.com/article/chronic-kidney-disease-and-hypertension-a-destructive-combination-35118
7. Sung KC, Ryu S, Lee JY, Lee SH, Cheong E, Hyun YY, *et al.* Urine Albumin/Creatinine Ratio below 30 mg/g is a predictor of incident Hypertension and Cardiovascular Mortality. J Am Heart Assoc [Internet]. 2016 Sep 1 [cited 2022 Jun 20];5(9). Available from: https://www.ahajournals.org/doi/abs/10.1161/JAHA.116.003245
8. O'Hare AM, Hailpern SM, Pavkov ME, Rios-Burrows N, Gupta I, Maynard C, *et al.* Prognostic Implications of the urinary albumin to creatinine ratio in veterans of different ages with diabetes. Arch Intern Med [Internet]. 2010 Jun 14 [Cited 2022 Jun 20];170(11):930-6. Available from: https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/416044
9. Fraser SDS, Roderick PJ, McIntyre NJ, Harris S, McIntyre C, Fluck R, *et al.* Assessment of Proteinuria in Patients with Chronic Kidney Disease Stage 3: Albuminuria and Non-Albumin Proteinuria. PLoS One [Internet]. 2014 May 27 [Cited 2022 Jun 24];9(5):e98261. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0098261
10. Lopez-Giacoman S, Madero M. Biomarkers in chronic kidney disease, from kidney function to kidney damage. World J Nephrol [Internet]. 2015 Feb 2 [cited 2022 Jun 23];4(1):57. Available from: PMC/articles/PMC4317628/
11. Levey AS, Eckardt KU, Tsukamoto Y, Levin A, Coresh J, Rossert J, *et al.* Definition and classification of chronic kidney disease: A position statement from Kidney Disease: Improving Global Outcomes (KDIGO). Kidney Int [Internet]. 2005 [cited 2022 Jul 5];67(6):2089-100. Available from: https://pubmed.ncbi.nlm.nih.gov/15882252/
12. Vaidya SR, Aeddula NR. Chronic Renal Failure. Sci Basis Urol Second Ed [Internet]. 2021 Oct 29 [cited 2022 Jun 14];257-64. Available from: https://www.ncbi.nlm.nih.gov/books/NBK535404/
13. Ralston S, Penman I, Strachan M HR. Davidson's Principles and Practice of Medicine. 23rd ed. Elsevier Ltd; c2018.

How to Cite This Article
Aravind Akshan GK, Nashath P. Use of homeopathic medicines in the treatment of albuminuria in patients with chronic kidney disease: A case series. International Journal of Homoeopathic Sciences. 2023;7(2):246-249.