

Acute interstitial nephritis associated with Ayurvedic treatment — Case Reports

M Anpalahan¹, Epa Seneviratne² and Rezvi Sheriff³

Journal of the Ceylon College of Physicians, 1993, 26, 51-52

Introduction

Two cases of Acute Interstitial Nephritis following treatment with Ayurvedic preparations are reported.

Case I

Mrs. M.N. a 55 year old house wife presented with Nephrotic Syndrome of two weeks duration. She had been well previously except for being an insulin dependent diabetic for six years. She denied fever, skin rash or skin sepsis, arthralgia, haematuria, oliguria or sore throat. She gave a history of currently taking Ayurvedic drugs for goitre for a period of two months preceding the onset of the illness. There was no history of previous kidney disease or intake of any western medical preparation.

On physical examination she appeared ill with gross pedal sacral and facial oedema and ascites. The BP was 170/98 and the JVP was not raised. The rest of the examination including the optic fundi was unremarkable. There were no changes of diabetic retinopathy.

Investigations

The urine sediment had 3-4 RBC/HPF and there was 4.8gms of protein in 24hr urine specimen. The serum creatinine was 0.9mg/dl. Urine culture — sterile.

It was thought that Diabetes Mellitus was unlikely to be the cause of the Nephrotic Syndrome in view of the short duration of Diabetes Mellitus and the absence of retinopathy. Furthermore the antecedent history of Ayurvedic treatment for 2 months made drug induced renal disease highly probable. The renal biopsy that was performed on this patient confirmed the diagnosis of Acute Interstitial Nephritis. She was commenced on prednisolone 10mg tds which was tailed off over a period of 12 weeks. The response had been remarkable with the 24hr protein dropping to 920mg within six weeks of commencing treatment.

Case II

Mr. W. a 73 year old businessman presented with a history of breathlessness and passing decreasing amounts of urine of 10 days duration. He did not have any kidney disease in the past but had been hypertensive for 5 years. His BP had been under control with Nifedipine 10 mg tds and 'moduretic' 1/2 tab. daily. He did not have fever, skin rash, haematuria, dysuria, sore throat or haemoptysis. He had taken Ayurvedic drugs for 3 months prior to the onset of his illness for general ill-health and hypertension.

On examination he appeared ill, dyspnoeic with ankle and sacral oedema. The JVP was raised to 4cm, BP was 140/90. Heart was not enlarged clinically and the heart sounds were normal. There were crepitations in both lung bases. The rest of the examination was unremarkable.

Investigations

Urine contained protein 1+, and RBS 20-25 HPF. Serum Creatinine was 6.7mg% and serum K+ was 5.7m Eq/L. Urine Culture — sterile.

A clinical diagnosis of RPGN was made and renal biopsy was performed. The renal biopsy however showed changes of acute interstitial nephritis with normal glomerular architecture. As the renal function progressively deteriorated he was started on haemodialysis treatment and methylprednisolone pulses of IG daily for 3 days. However the renal function did not show any improvement and there was rapid deterioration in the general condition of the patient. He died on the 23rd day after a cardiac arrest which did not respond to resuscitative measures. No postmortem examination was carried out.

Discussion

We have reported two cases of biopsy proven Acute Interstitial Nephritis likely to be associated with Ayurvedic drug treatment. The first patient presented with Nephrotic Syndrome and the second patient with rapidly progressive oliguric renal failure. The first patient had not taken any other medication other than ayurvedic drugs prior to the onset of the illness. The second patient however had been on Nifedipine and 'moduretic' (Amiloride, HCT combina-

1 Senior Registrar,

3 Professor of Medicine, University Medical Unit, General Hospital, Colombo.

2 Physician, Matara Private Hospital

tion) for hypertension. Although thiazide diuretics and frusemide have been infrequently incriminated in the pathogenesis of acute interstitial nephritis the time course of the disease makes moduretic unlikely being the offending agent.

The clinical diagnosis of drug induced nephritis is often difficult to document since the signs and symptoms of renal disease accompanied by the triad of fever, rash and arthralgia (1) are present only in a small number of patients. Various laboratory determinations of the urine, blood can contribute to the diagnosis and recently gallium citrate scanning (2) too was proposed in this clinical setting. However most of these tests suffer from lack of specificity and sensitivity. Eosinophilia (1) is highly suggestive of this diagnosis although it is not specific. The diagnosis can only be established with certainty by means of a kidney biopsy.

In our patients the diagnosis of acute interstitial nephritis was confirmed by renal biopsy and the time course from the commencement of Ayurvedic drug treatment to the onset of symptoms implicate ayurvedic drugs as the most likely responsible agents. Blood eosinophilia was not observed in these patients and urine was not examined for eosinophil. Proteinuria is usually mild to moderate in interstitial nephritis. However proteinuria of nephrotic range has been described in patients with Acute interstitial nephritis associated with the use of NSAIDS (3,4). In many such patients fusion of foot processes has

been noted under EM in addition to the usual changes of Acute interstitial nephritis (3,4). In the first patient who presented with nephrotic syndrome it was possible that she had minimal glomerular changes. However EM examination was not carried out in this patient.

Very little literature is available on the side effects of ayurvedic drugs. Heavy metals which form an important constituent of many ayurvedic drugs are well recognised nephrotoxic agents. The prescription notes given for these two patients were scrutinised by Ayurvedic Academics and drugs containing heavy metals were not found among them.

The diagnosis of acute interstitial nephritis is important because withdrawal of the offending agent will usually result in rapid and complete improvement of renal function and other renal abnormalities.

References

1. Galpin JE, Shinaberger JH, Stanely TM, et al Acute interstitial nephritis due to methicillin *AM J Med* 1978; 65: 756-65.
2. Linton AL, Richmond JM, Clark WF, Lindsay RM, Dreidger AA, Lamki LM, Gallium scitigraphy in the diagnosis of acute renal failure. *Clin Nephrol* 24: 84, 1985.
3. Brezin JH, Katz SM, Schwartz AB, Chinitz JL. Reversible renal failure and nephrotic syndrome associated with nonsteroidal anti-inflammatory drugs *N Eng J Med* 1979; 301: 1271-3.
4. Clive DM, Stoff JS, Renal syndromes associated with nonsteroidal anti-inflammatory drugs. *N Eng J Med* 310: 563, 1984.