A case of diabetic nephropathy in complete repertory

Dr. J Senthil Kumar, Dr. Sri Vaishnavi and Dr. AM Aarthi

Abstract
Diabetic nephropathy (DN) is a common complication of diabetes mellitus. It has a major impact on patient morbidity and mortality, and therefore a profound impact on the delivery of healthcare in this country. Suboptimal glycaemic control and a higher blood pressure are particularly important risk factors for the development of diabetic nephropathy. It affects more than one-third of patients with type 1 diabetes and an ever-increasing proportion of patients with type 2 diabetes, and is now the single most common cause of end-stage renal failure.

Keywords: diabetic nephropathy (DN), diabetes mellitus (DM), hyper tension, Renin - angiotensin, glomerular filtration rate (GFR), end-stage renal disease (ESRD), homoeopathy

Introduction
A microvascular complication of diabetes mellitus (DM) that causes a progressive decline in glomerular filtration rate (GFR), which may lead to end-stage renal disease (ESRD) [1].

Classification of diabetic nephropathy [2]
- Normoalbuminuria (< 30 mg albumin/g creatinine)
- Microalbuminuria (30–300 mg albumin/g creatinine)
- Macroalbuminuria (> 300 mg albumin/g creatinine)

Clinical syndrome characterized by [4],
- Persistent macroalbuminuria (>300 mg/d)
- Relentless decline in GFR
- Elevated arterial blood pressure

Risk factors [3]
- Hyperglycaemia (duration and degree)
- Systemic hypertension
- Genetic susceptibility
- Smoking
- Dyslipidemia
- Microalbuminuria

Etiology [2]
- 2 key causes of diabetic glomerulosclerosis
  - Chronic hyperglycemia
  - Intraglomerular hypertension
- Pathogenetic mechanisms resulting to nephropathy
  - Effects of soluble factors.
  - Hemodynamic alterations in the renal microcirculation.
  - Structural changes in the glomerulus.
- Smoking accelerates the decline in renal function.

Natural history (similar in type 1 DM and type 2 DM)
- Stage 1: glomerular hyper filtration and hypertrophy
  - First year after onset of DM
  - Increase in GFR
- Stage 2: early glomerular lesions
  - Develop during the primary 5 years of DM
  - Thickening of glomerular basement membrane
  - Mesangial volume expansion
Stage 3: incipient nephropathy/micro albuminuria
- Pathologic changes could also be reversible at this stage.
- Urinary protein excretion increases.
- GFR begins to decline.

Stage 4: clinical nephropathy
- Urinary protein excretion increases.
- GFR continues to decline.
- Pathologic changes are irreversible.

Stage 5: ESRD
- Uremic symptoms and signs become manifest.

Associated conditions
- Hypertension [5]
- Cardiovascular disease [5]
- Diabetic retinopathy [6]

Signs & Symptoms [7, 8, 9]
- Patients are typically asymptomatic until they develop advanced nephropathy.
- Symptoms of uraemia (advanced disease)
  - Fatigue
  - Frothy or foamy urine (caused due to proteinuria)
  - Nausea and vomiting
  - Anorexia (poor appetite)
  - Weight gain, due to fluid retention
  - Frequent hiccups
  - Generalized itching due to dry skin
  - Hypertension
  - Signs of diabetic retinopathy
    - Carotid bruits
    - Decreased peripheral pulses
  - Peripheral oedema (advanced disease)

Investigations [3]
- 24-hour urine collection
- Microalbuminuria: 30–300 mg/d
- Overt proteinuria: >300 mg/d
- Serum chemistry panel
  - Creatinine
  - Blood urea nitrogen
  - Electrolytes
- Complete blood count, to monitor for anaemia
- GFR estimation
- Renal ultrasonography

Complications [4]
- ESRD requiring dialysis
- Increased risk of cardiovascular diseases or disorder
- Increased risk of radiocontrast-induced nephrotoxicity
- Death

Prevention
1. Keep blood glucose under control or in check (TARGET: HBA1C < 7%) [10]
2. Keep blood pressure level within the normal range (target: <130/80 mmHg) [10]
3. Get plenty of exercise (at least 150 minutes in a week) [10]
4. Maintain a healthy weight (for Asians, maintain a healthy BMI of 18.5 to 22.9) [10]
5. Quit smoking [10].
6. Limit alcohol intake to a maximum of two drinks for men and one drink for women per day [10].
7. Decreasing liquid intake to help reduce edema and lower blood pressure [9].
8. Eating a diet low in saturated fat and cholesterol to help control high levels of lipids, or fats, in the blood [9].

Homoeopathic approach
Homoeopathy acknowledges that the diseased kidneys need to be diagnosed but it also maintains the larger perspective that the kidneys belong to a private which and that individual needs to be treated in his entirety to get best results. Thus the kidneys are the ultimate recipients of the treatment but each individual's kidneys will need to be treated differently supported on the symptoms. We believe constitutional prescribing through Repertorization. Every case of chronic renal disease imply study of the patient’s constitution, which incorporates various aspects of his physical ailments as well as the in-depth study of the mental sphere like emotions, psychosocial background, behaviour and personality pattern. Constitutional homeopathic medicines will reduce the frequency of dialysis, maintain blood glucose levels within normal limits, take care of side effects due to heavy conventional medicines and forestall the progress of the disease.

Homoeopathic therapeutics for diabetic nephropathy [11, 12, 13]

Lycopodium clavatum 30X: Lycopodium is an effective remedy for diabetic nephropathy. Urine scanty, cries before urinating, red sand in urine, must strain, suppressed or retained. Urine milky and turbid. Sometimes haematuria. Urine is burning and hot. The right kidney is mainly affected. The patient experiences impotency. The patient likes warm food and drink, also there is intense craving for sweets.

Serum anguillae 6X: Serum Anguillae is one of the best remedies for diabetes nephropathy. It is very effective in acute nephritis. Kidney failure. It is prescribed when hypertension and oliguria without oedema is present. Urine contains albumin.

Aralia hispida 30X: Aralia hispida is found to be effective for diabetes nephropathy. There is dropsy of renal origin. Urinary tract infection is present. Urine is scanty leading to complete suppression of urine. Renal diseases with constipation.

Ampelopsis quinquefolia 30X: Ampelopsis quinquefolia is another effective remedy for diabetes nephropathy. There is uraemia or uremic coma. Vomiting, purging, tenesmus, cold sweat and collapse are the leading symptoms.

Apis melifica: Apis Melifica is found to be effective in treating Diabetes Nephropathy. Burning in urethra before and during micturition, Urine dark and scanty; retention of urine, bladder but slightly distended; febrile symptoms with oppressed respiration, headache and gastric dearrangement; thirstlessness; frequent desire with passage of only few drops.

Cuprum arsenitum 3X: Cuprum ars is also a very effective remedy for diabetes nephropathy. There is kidney inefficiency and uremia. The urine smell like garlic.
of high specific gravity increased, acetones and diacetic acid.

**Cuprum aceticum 3X:** In Cuprum aceticum the tongue is pale, coated with lot of mucus. Anaemia. Pulse rapid. The patient is chilly. Breathlessness with dry cough. Cannot eat or drink without retching.

**Arsenicum album 30:** Arsenic alb. Is also an effective remedy for diabetes nephropathy. Urine is scanty, burning when urinating. Albuminuria. Epithelial cells, cylindrical clots of fibrin and globules of pus and blood in urine. Feeling weakness in abdomen after urination. Retention of urine. Urine black as if mixed with dung.

**Belladonna:** Belladonna is used in the acute stage where uremia occurs in healthy patients when kidney ceases to function and urine becomes dark and turbid. There is twitching of the muscles with violent convulsions.

### Rubrics for diabetic nephropathy in complete repertory **[14]**

- Urine – Frothy, Foamy
- Fatigue Syndrome, Chronic
- Kidneys Pain: Nausea, with
- Kidneys Pain: Ureters: Vomiting, with
- Urine Profuse, Increased: Vomiting, with
- Bladder Pain: Tenesmus, painful urging: Vomiting, purging and urination:
- Bladder Pain: Vomiting, purging and urination:
- Urethra Hemorrhage: Pain in: Stomach, and vomiting:
- Kidneys Pain: Piercing: Chilliness and inclination to vomit, with
- Kidneys Pain: Cutting: Ureters: Vomiting, with
- Kidneys Suppression of Urine, Anuria: Vomiting, with
- Heart & Circulation Palpitation Heart: Tinnitus, sadness, anorexia and chest oppression, with:
- Abdomen Pain: Anorexia, with, costiveness and red urine, in children
- Weight Loss, Rapid
- Extremities Swelling: Edematous: Feet
- Extremities Swelling: Feet: Inflammation of kidneys, in:
- Abdomen Dropsy, Ascites: Appetite, with loss of
- Heart & Circulation Pain: Heart region: Breathing: Short, with
- Albuminuria Urine: Albuminous, proteinuria: Hypertension, with
- Mind Concentration: Difficult
- Urine Albuminous: Hypertension, in
- Heart & Circulation Hypertrophy, Heart: Hypertension, in
- Heart & Circulation Pulse, Heartbeat: Rapid, tachycardia: Hypertension: With:
- Kidneys Pain: Urination: Increased, with
- Kidneys Pain: Urination: Increased, with
- Urine Potassium Increased
- Generalities Swelling: Edematous: Dryness of skin, with
- Generalities Swelling: Edematous: Heart complaints, in: Urine, with involuntary, and dry skin:
- Extremities Twitching: Muscles
- Bladder Urination: Difficult, dysuria: Sleep, after

### Materials and Methods

#### Introduction of the case:
Mr. X of age 56 came with the complaints of increased blood sugar levels and high blood pressure. The patient is a known case of uncontrolled Diabetes from past 10 years and also suffers from hypertonpin (High blood pressure) for the past 6 years. The patient has swelling in both the ankles and feet. Worse by hanging down legs, while sitting and better by walking & raising the leg. Severe itching of skin all over the body. Dryness of skin. Patient feels highly fatigue and tiredness after urination. Increased frequency of urination during night. The patient has a frothy urine and has cutting type of pain in urethra while passing urine. The serum creatinine levels were 4.9. Blood sugar levels: fasting – 280 mg/dl; PP – 464 mg/dl. BP – 170/110 mm hg.

### Past History:
Known case of Diabetes Mellitus for past 10 years. Known case of Hypertension for past 6 years.

### Treatment History:
Allopathic treatment for Diabetes and Hypertension as well as the presenting complaints.

### Family History:
Father: Passed away:
Mother:Diabetic & Hypertension

#### Mental generals:
Patient suffered from emotional shock when his father passed away at a very young age. So he had to struggle a lot since his childhood to reach too this level (Bank Manager). He has his own philosophies and he believes in them very strongly. He gives donations every year to the needy. He used to smoke, take tobacco and alcohol when he undergoes stress which he has stopped now.

### Physical Generals:
- Appetite – Good.
- Thirst - 1.5 – 2 litres of water / day
- Cravings – Alcohol. But stopped due to illness.
- Aversion – sweets +++
- Perspiration – On Exertion
- Bowel Habit – Once a day. Regular.
- Bladder habit – 10-12 times per day. 6-7 times especially during night.
  - Frothy urine and cutting type of pain in urethra.
  - Sleep – Disturbed due to complaints.
  - Dreams – Nothing specific
  - Thermal state – Hot patient

### Analysis & evaluation of symptoms:
- Increased frequency of micturition at night.
- Frothy Urine
- Cutting type of pain in urethra
- Dryness of skin
- Swelling of feet and ankles
- Prostration
- A/F : Death of father
- Helpful
- Believes in own philosophy

### Repertory used **[14]**:
**Complete**

**Rubrics taken **[14]**:
- Death: Ailments from, agg: Loved ones, of:
  - Helpful
Philosophy: Ability for

Skin Eruptions: Eczema: Dry

Extremities Swelling: Ankles

Extremities Swelling: Feet

Urethra Pain: Cutting: Urination: During

Urine Frothy, Foamy

Urine Profuse, Increased: Night

Male Genitalia Weakness, Tired Feeling: Urination, after

Fig 1: Hompath Zomoeo Sheet [14]

Table 1: Repertorial Analysis

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Remedies and their relative value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sulphur – 24/8</td>
</tr>
<tr>
<td>2.</td>
<td>Lycopodium – 23/9</td>
</tr>
<tr>
<td>3.</td>
<td>Natrum MUR – 19/7</td>
</tr>
<tr>
<td>4.</td>
<td>Merc SOL -17/7</td>
</tr>
<tr>
<td>5.</td>
<td>Apis MEL – 17/5</td>
</tr>
</tbody>
</table>

Prescription:
Lycopodium 200 /1 dose
SL Pills (4-0-4) / 2 weeks, AF

Table 2: follow up

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Symptoms</th>
<th>Prescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Patient feels better. There is a decrease in frequency of micturition. Dryness of skin has become slightly better. Swelling of ankles slightly reduced. BP – 150/100 mm hg</td>
<td>SL pills (4-0-4) / 15 days, AF</td>
</tr>
<tr>
<td>2.</td>
<td>Patient feels better. Urine frequency has been reduced at night. Dryness of skin improved. Swelling of ankles reduced. Patient had taken a blood report. Blood sugar levels were reduced. Fasting – 170 mg/dl; PP - 320 mg/dl. Serum creatinine level – 3.6. BP – 140/100 mm hg</td>
<td>SL pills (4-0-4) / 15 days, AF</td>
</tr>
<tr>
<td>3.</td>
<td>Patient feels better. Generals good. Dryness of skin improved. Swelling of ankles reduced. BP – 150/90 mm hg</td>
<td>SL pills (4-0-4) AF/ 15 days</td>
</tr>
<tr>
<td>4.</td>
<td>Patient feels better. Generals good. No new complaints. Blood sugar levels were reduced. Fasting – 140 mg/dl; PP - 265 mg/dl. Serum creatinine level – 3.6. BP - 130/80 mm hg</td>
<td>SL pills (3-0-3) AF/ s15 days</td>
</tr>
</tbody>
</table>

Conclusion
Homoeopathy is very effective in all stages and variants of Diabetic Nephropathy. It may be taken along with traditional medicines prescribed by physician. It helps to reduce (and eventually to stop) the dose of conventional medicines for Diabetic Nephropathy, once the improvement sets in. However, withdrawal of the medicine should be done slowly and under supervision of the physician. It helps arrest further progress of disease and hence deterioration caused by disease. If administered in early stage it prevents complications like renal failure associated with disease thus minimizing need of dialysis or transplant.

Reference
5. Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications Research Group: Sustained effect of
intensive treatment of type 1 diabetes mellitus on development and progression of diabetic nephropathy. JAMA, 290, 2159.


9. IgA nephropathy- National Kidney Foundation
11. inkedin.com/pulse/homoeopathy-diabetic-nephropathy