EFFECT OF AYURVEDIC TREATMENT IN DIABETIC NEPHROPATHY: A CASE STUDY

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ABSTRACT

Aim and Background: Nephropathy is leading complication of Diabetes (DM) that affects about 40% of diabetics. It needs intense management, such as dialysis and may lead to renal transplant and badly affects quality of life. With limited options available in modern medicine, following Ayurvedic principles of diagnosis and treatment can be useful. Case Description: A 65 years old female patient, known case of DM for 24 years, with bilateral pedal edema, puffiness of face, frequent nocturnal micturition, nausea, vomiting, weakness and hiccups visited hospital. Her renal and diabetic profiles were deranged (serum creatinine 3.0 mg/dl, blood urea 50 mg/dl, blood sugar fasting 245 mg/dl and post prandial 345 mg/dl) with protein urea. Patient was taking oral hypoglycemic agent and insulin. She was case of diabetic nephropathy. According to principles of Ayurveda she was diagnosed as case of ‘prameha updrava janya kapha pitta pradhan vrukka roga’. She received combination of hajratyahud bhasma 125mg, punarnava, varuna, ushira, amalaki each 250 mg before food twice daily, fresh decoction of trinapanchamoola 50 ml twice daily and chandraprabha vati 500 mg before food twice daily. Outcome: After three months of treatment patient showed significant relief in symptoms. Significant drop down was seen in renal profile and sugar (serum creatinine1.1 mg/dl, blood urea 40 mg/dl, blood sugar fasting 114 mg/dl, post prandial 203 mg/dl) with decrease in protein urea. Conclusion: Significant relief can be achieved in patients of nephropathy by applying principles of diagnosis and treatment of prameha and vrukkaroga. It’s single case study and can lay down road ahead for further research.

Keywords: Diabetic Complications, Chronic Kidney Diseases, Vrukka Roga, Serum Creatinine.

INTRODUCTION

Diabetic nephropathy is a global threat to health in general and for developing countries in particular because therapy is expensive and lifelong. In India, 90% patients cannot afford the cost. Diabetic nephropathy refers to an irreversible deterioration in renal function which classically over period of years.

Initially, it is manifested only as a biochemical abnormality. Eventually, loss of excretory, metabolic and endocrine function of the kidney leads to the development of the clinical symptoms and signs of renal failure, which are referred to as uremia. When death is likely without renal replacement therapy
(RRT), it is called end stage renal failure (ESRF) . It would be interesting to know that the incidence of chronic kidney disease in India, which densely populated country with low income, different food, cultural tradition and lifestyle habits, is 7.85 million of its 1 billion population and the prevalence rate is 0.78% . Over 1 million people worldwide are alive on dialysis or with a functioning graft .

Diabetic nephropathy is typically defined by microalbuminuria that is urinary albumin excretion of more than 300 mg in a 24-hour collection or microalbuminuria and abnormal renal function as represented by an abnormality in serum creatinine, calculated creatinine clearance or glomerular filtration rate (GFR). Clinically, diabetic nephropathy is characterized by progressive increase in proteinuria and decline in GFR, hypertension and a high risk of cardiovascular morbidity and mortality. As per ayurvedic classics, upadravas of prameha are nausea, vomiting, edema, indigestion, hiccups. These symptoms are seen asupadrava due to kapha and pitta. Though complications of prameha are well written in all classical treatises there is no clear mention of pathology that can clarify dosha-dushya sammurchchhana involved in them. Considering nephropathy, Vrukka Roga mentioned in ‘Bhaishajyaratnavali’ matches very well with sign and symptoms of diabetic nephropathy.

CASE DESCRIPTION
A female patient of 65 years presented in outpatient department of Ayurveda Rugnalaya and Sterling Multispecialty Hospital in August 2017 with complaints of bilateral pedal edema, nausea, vomiting, generalized weakness, hiccups, frequent nocturnal urination from 25 days. She was known case of DM (type 2), hypertension for 25 years. She was taking combination of gliclazide 80 milligram (mg) and metformin 500 mg twice daily, injection huminskiulin 30/70 in dose of 25 units before breakfast, 20 units before lunch and 25 units before dinner subcutaneously, Metoprolol 25mg once per day. Despite oral hypoglycemic agents and insulin patient did not have good glycemic control. Blood investigation showed serum creatinine 3.0 milligram per deciliter (mg/dl), blood urea 50mg/dl, BSL F – 245mg/dl. Urine examination showed moderate protein and sugar loss.

Diagnosis
In view of modern sciences, it was clearly a case of Diabetic Nephropathy. According to Ayurveda the patient clearly showed symptoms of Prameha Upadrava such as vomiting (chhardi), nausea (hrillas), weakness (daurbalya) . But precise diagnosis established was Prameha Upadrava Kapha Pitta Pradhan Vrukka Roga.

Treatment Given
Patient received Chandraprabha Vati 500 mg(Sharangdhar Samhita Madhyam Khand 7/40-49) twice a daily before food, combination of hazratyahud bhasma 125 mg (Siddha Yoga Sangrah Ashmari Mutrakrichra Adhikar), punarnava (Boerhavia diffusa), varun (Crataeva nurvala) ushir (Vetiveriaziot anoidis) amalaki (Emblicaoffinicalis) each 1 gm. This combination advised to take before food half an hour food with lukewarm water. Freshly prepared decoction of Trunpanchmula (combination of Kush (Desmostachyabi pinnata), Kash (Saccharum spontaneum), Darbha (Saccharum munja), Nal (Saccharum officinorum), Kandeshu) 50ml daily twice a day after food and Prawal Panchamrut 250 mg twice a day before food. This treatment advised for three months. All other allopathic treatment for hypertension and diabetes were continued as before, but patient did not take any treatment other than Ayurvedic treatment for nephropathy.

Treatment Outcome
After 15 days of treatment, bilateral pitting pedal edema, nausea and vomiting were reduced. After one month of treatment marked reduction in serum creatinine levels was seen (1.9 md/dl) and significant relief was seen in Chardi (Vomiting), hrullas (Nausea), Daurbalya (General weakness). After two months, serum creatinine levels were within normal
limits (1.5 mg/dl) and patient did not show any symptoms. She was advised to continue the treatment and latest creatinine levels are well within normal range (1.1 mg/dl after three months of treatment). Blood sugar fasting was 114 mg/dl and post prandial 202 mg/dl which showing good glycemic control. And in urine routine microscopic decrease proteinuria (Table number 1).

Table number 1

<table>
<thead>
<tr>
<th>Base line.</th>
<th>Signs and Symptoms</th>
<th>Investigations</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/09/2017</td>
<td><strong>Ubhaypaadshota</strong> (bilateral pedal edema), <strong>Chardi</strong> (vomiting), <strong>hrullas</strong> (nausea), <strong>Daurbalya</strong> (General weakness), <strong>Naktamutrata</strong> (frequent nocturnal micturition) <strong>Hikka</strong> (hiccough).</td>
<td>BSL(fasting) – 245 mg/dl BSL(post-prandial) – 345 mg/dl Blood urea level – 50 mg/dl Serum creatinine – 3.0 mg/dl Urine routine and microscopic – Showed moderate protein and sugar loss (protein ++, sugar +)</td>
</tr>
<tr>
<td>After one month follow up 20/10/2017</td>
<td>Relives symptoms of <strong>Ubhaypaadshota</strong> (bilateral pedal edema), <strong>Chardi</strong> (vomiting), <strong>hrullas</strong> (nausea), <strong>Hikka</strong> (hiccough).</td>
<td>BSL (Fasting) – 202 mg/dl BSL (post–prandial) – 230 mg/dl Blood urea level – 54 mg/dl Serum creatinine – 1.8 mg/dl</td>
</tr>
<tr>
<td>After two months follow up 24/11/2016</td>
<td>Above symptoms are markedly relives. including <strong>Daurbalya</strong> (General weakness)</td>
<td>BSL(Fasting) – 180 mg/dl BSL (post-prandial) – 220 mg/dl Blood urea level – 45 mg/dl Serum creatinine – 1.5 mg/dl.</td>
</tr>
<tr>
<td>After three months follow up 24/12/2017</td>
<td>Showed significant relief in all above mention symptoms.</td>
<td>BSL (Fasting) – 114 mg/dl BSL(post–prandial) – 202 mg/dl Blood urea level - 40 mg/dl Serum creatinine – 1.1 mg/dl. Urine routine and microscopic – showed mild protein and sugar loss (protein + sugar +)</td>
</tr>
</tbody>
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DISCUSSION

Diabetic Nephropathy is characterized by excessive urinary albumin excretion followed by loss of kidney function. It is a result of reduced glomerular filtration rate (GFR). It has been classified in five stages. Protinuria is hallmark of Diabetic Nephropathy. It begins as transient microalbuminuria with preserved GFR in early stage I. As GFR reduces to 50%, there is persistent proteinuria, raised serum creatinine, hypertension and edema (stage IV), which reaches to end stage renal disease (stage V) as GFR reduces. In view of this classification, the current patient was in late stage IV of diabetic nephropathy. Patient in this stage need meticulous treatment for preservation of renal tissue. As per Ayurvedic classics, upadras of prameha nausea, vomiting, edema, indigestion, hiccups these symptoms are seen as upadra due to kapha and pitta. Though complications of prameha are well written in all classical treatises there is no clear mention of pathology that can clarify dosha dushya sammurchchhana involved in them. Considering nephropathy, Vrukka Roga mentioned in ‘Bhaishajyaratnavali’ matches very well with sign and symptoms of diabetic nephropathy. So, pathology of Diabetic nephropathy from ayurveda’s point of view can be considered according to Vrukka Roga mentioned in Bhaishajyaratnavali. If symptoms of upadra of prameha and vrukka roga are considered the patient can be diagnosed as case of prameha upadrajanaka kapha pitta pradhan vrukkarogā. Acharyas have advised to use combination of herbal medicines which have functions such as mutral, deepen, pachan, raktaprasadak, virechak and rasayana. Patient received chandraprabha vati which reduces kapha, pitta, dhatushaithilya (laxity), kleda, well
known for its action on mutrendriya (basti). Hence, it acts as rasayana for mutravaha srotasa. She received combination of hazrat yahud bhasma (silicate of lime) which is mutral, pittashamak, and reduces mutrakruchhra. Punarnava (Boerhavia diffusa) is an excellent medicine in this condition due to its tridoshar, kaphapittashamak, shothhar, mutrajanan properties. Varun (Crataeva nurvala) also pacifies kapha and vata and especially reduces pain in basti. It is well known as mutramargsankramana. Ushir (Vetiveriazio zanoiodis) is sheeta and also helps as mutrajanan. Amalaki (Emblica officinalis) is well known for its pramehaghna, rasayana and pittashamak effect. Trunpanchmul is combination of kush (Desmostachya bipinnata), kash (Saccharums ponteuneum), shara (Saccharum munja), ikshu (Saccharum officinorum), kandeshu. The combination is well known for its effect on urinary system. It is tridosghna, mutral and works on vrukharoga. Hence the combination of medicines along with decoction of trunapanchamula could have shown good effect in improving renal function. Prawalpanchamrut was useful due to its sheeta, deepana properties.

**CONCLUSION**

As the number of diabetics is growing in India as well as worldwide, number of patients suffering from nephropathy will also rise. Hence it is high time to improvise our treatment plans and help to answer complicated situations such as Diabetic nephropathy. It is an observation in a single case and more studies in this direction would help in establishing ayurvedic treatment in this condition. Significant relief can be achieved in patients of nephropathy by applying principles of diagnosis and treatment of prameha and vrukharoga. It’s single case study and can lay down road ahead for further research.

**REFERENCES**

Swapnil Parab & Pravin G. Jagtap: Effect Of Ayurvedic Treatment In Diabetic Nephropathy: A Case Study

Source of Support: Nil
Conflict Of Interest: None Declared