

PREVENTION AND MANAGEMENT OF DIABETIC NEPHROPATHY THROUGH
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Article Received on 28/11/2017

Article Revised on 18/12/2017

Article Accepted on 08/01/2018

ABSTRACT

Diabetes Mellitus is a metabolic disorder caused due to either total insulin deficiency or insulin resistance. Diabetic nephropathy is one of the common complication of Diabetes Mellitus. In Diabetic nephropathy urine albumin excretion accelerate than normal range. In *Ayurvedic* classical text, Diabetes has been included under *Prameha* which is of three type-*Vataj*, *Pittaj* and *Kaphaj*. If *Prameha* is not treated properly for a long period of time then all *Prameha* can convert into *Madhumeha*. Albuminuria is nothing but the excess loss of *Dhatu Saransh* (finest tissue) due to weakness of *Ayanadourbalya* (system). The progress of this structural damage gradually leads to a condition in which function of the *Srotas* (system) is totally get impaired (*Sanga*). Diabetic nephropathy can be prevented by changing lifestyle interventions included diet (*Aahar*), moderate-intensity physical activity (*Vihar*) etc. So that in this paper I will present the preventive aspect and management of Diabetic nephropathy through *Ayurveda*.

KEYWORDS: Diabetic nephropathy, *Madhumeha*, *Aahar*, *Vihar*.**INTRODUCTION**

The prevalence of diabetes is rapidly increasing all over the world. The stage of diabetes has been changed mainly by affecting earlier aged people and number of deaths increased yearly. The diabetic population is increasing due to population growth, stress, food habits, obesity and decreased physical activity. Diabetic nephropathy is characterized by increased urinary protein, loss of renal function, excessive deposition of extracellular matrix proteins in the mesangium and clear cytoplasm of the proximal tubular epithelial cells due to excessive reabsorbed glycogen. In the diabetic patients, nephropathy develops mainly due to glomerular sclerosis and arteriosclerosis in kidneys. Kidney tissues get damaged after some period. Diabetic nephropathy accounts for approximately 14% of all deaths in diabetic patients and some 25% of those developing diabetes under the age of 30 die from renal failure due to diabetic nephropathy. Evaluation of diabetes and its complications is very essential for proper control and prevention of the disease associated complications.

MATERIAL AND METHOD

Diabetic nephropathy is a specific form of renal complication of Diabetes Mellitus (DM), a major cause of death and disability among diabetics. It is observed that even the patients having well-controlled diabetes suffer from diabetic nephropathy. The growing prevalence of obesity and metabolic syndrome (the cluster of risk factors including hypertension, insulin

resistance and dyslipidemia) is the major driving force for the continued increase in the prevalence of type 2 diabetes. These disorders likely interact to exacerbate the kidney damage. Following factors can control prevention of the diabetic nephropathy – 1. Control of blood glucose – excellent glycemic control reduces the risk of kidney disease and its progression in both type 1 and type 2 diabetes mellitus 2. Control of blood pressure and proteinuria – microalbuminuria precedes the decline in the GFR announces renal and cardiovascular complications etc.

According to *Ayurveda*, nephropathy is a disease of *Mutravaha Srotas*. Though all the three *doshas* are involved in the disease, *Kapha* is responsible in blocking microvessels and developing microangiopathy. The following factors promote Diabetic Nephropathy –

Based on *Rasa*: *Madhura*, *Amla*, *Lavana*. Based on *Guna*: *Guru*, *Snigdha*, *Picchila* Based on *Dravya*: *Navanna*, *Dadhi*, *Anoopa Mamsa*, *Masha*, etc. Based on *Vihara*: *Madhyanitya*, smoking, *Divaswapna*, *Avyayama*, *Adhyasana*, etc.

Damage in tissue can be repaired and prevented by the use of *Rasayanas* as they improve the nourishment, maintain the patency of the *Srotas* and improve the resistance of the tissues against any adversity. Any blockage can be removed by the preparations having *Lekhana* (scraping) effect on blocked microvessels as well

as macrovessels. Hence, *Ayurvedic* drugs are used in the management of diabetic nephropathy, which can be helpful in reducing the need of dialysis and avoiding or delaying renal transplantation.

DISCUSSION

A special planned diet (like - no beans except mug beans, no oil except sesame oil, no ghee except cow ghee, cow's milk, *chyavanprash*, no sour food, no sharp spices, no deep fried or fermented food, no *viruddhahara*) can also be useful in the prevention and management of diabetic nephropathy. *Ayurvedic* preparations used are much effective in improving the kidney functions and retarding the progression of diabetic nephropathy, especially with strict diet restriction and regimen. It may be concluded that treatment is effective if the patient is on healthy food which is supportive enough to act against disease process. This type of food may be creating a favorable atmosphere in the body for better activity of the medicaments being used. No exercise or less exercise may cause insulin resistance and reduce glucose utilization or insulin sensitivity. A recent meta-analysis showed that exercise reduces HbA1c levels by an amount that is expected to reduce diabetic complications, without a mean effect on body weight.

Dietary and lifestyle plans should be made in accordance with the day-to-day requirement of an individual. Due importance must be given to adopt Yoga in daily routine. Maintaining physical wellbeing, mental tranquility and sanctity is equally crucial. In *Ayurvedic Samhitas pathya-apathya Aahar-Vihara* given for prevention and management of diabetic nephropathy like.

1. Ahara(Diet)

Cereals–*Yava*, Barley {*Chenopodium Album*}, *Godhooma* (Wheat), *Bajara* Pulses–*Mudga* {Green gram}, *Chanaka* {Gram}. Vegetables–*Tikta shakas*, *Methika*, *Nimba*{*Azadirachta Indica*}, *Karavella* {*Momordica charantia*}, *Patola* {*Trichosanthes Anguina*}, *Rasona*{Garlic}, Beans, Asparagus.

Fruits–*Jambu* {Black berry}, *Tala phala* {*Borassus flabellifer*}, *Kharjura* {*Phoenix sylvestris*}.

Flesh–*Harina*–Deer flesh, *Shashaka*–Rabbit, Birds like *Kapotha*, *Titira* Oils–Mustard, *Ingudi* {*Balanitis aegyptiaca*}.

2. Vihara (Habits)

Daily *Abhyanga*, Exercise, avoid *Diwaswap* & *Ratrijagaran*, Yoga. Life style contributes a lot in health and disease. Diabetes mellitus is a disease which is positively interlinked with lifestyle. A study shows that a person with high levels of physical activity, a healthy diet, no smoking habits, and alcohol consumption in moderation had an 82% lower rate of diabetes.

CONCLUSION

According to *Ayurveda* one should observe certain

disciplines or duties to achieve a healthy and happy life. Some of them are – daily regimen (*Dinacharya*), seasonal regimens (*ritucharya*), precautionary observance in sexual activity (*brahmacharya*), rules of conduct for the well being of oneself and the society (*sadavritta*), rules for taking food (*ahara vidhi*), precautionary measures against untimely old age (*rasayana* & *vajikarana*), conduct & practice to achieve self realization (*naisthiki chikitsa*). *Ayurvedic* lifestyle guidelines of adopting a healthy dietary pattern together with physical activity are valuable tools in the prevention of type 2 diabetes. For prevention and management of diabetic nephropathy the importance of *Pathyapathya* given in *Ayurveda* is very useful. This management may bring some new hope to the patients of diabetic nephropathy, which usually terminates to chronic renal failure and ultimately to death.

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