

Lifestyle intervention in shift towards non communicable diseases due to urbanization through ayurveda

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ABSTRACT:

Rate of non-communicable disease goes on increasing worldwide due to increasing urbanization and change in life style. Non communicable diseases kill 40 million peoples each year equivalent to 70% of all death globally. Cardiovascular diseases occurs for most non communicable deaths, or 17.7 million peoples annually followed by cancer (8.8 million) , respiratory diseases (3.9million), and diabetes (1.6million). These 4 group of diseases account for 80% of all non-communicable diseases. Vulnerable risk factors contributing are unhealthy diet, physical inactivity, exposure to tobacco smoke or the harmful use of alcohol.

These diseases are driven by forces that include rapid unplanned urbanization, globalization of unhealthy lifestyle and population aging. Unhealthy

diet and a lack of physical activity may show up in peoples as raised blood pressure, increased blood glucose level, elevated lipid level etc. These are called metabolic risk factors which leads to cardiovascular diseases the leading non communicable diseases in terms of premature deaths.

The description of *bahudosha* , *snatarpanjanya vyadhi*, *medoroga* and *santarpanjanya prameha* in ayurvedic science has similarity to metabolic risk factors. Ayurvedic management of these conditions involves predominantly *Aahara* (diet management), *Vihara* (physical exercise and stress management) and *shodhana* (purification). This paper will cover epidemiological data of non-communicable disease and urbanization. An ayurvedic review of this conditions along with their management and its application along with their management

and application in today's clinical practice will be discussed.

Key Words: *shodhan chikitsa*, life style management, non-communicable disease.

INTRODUCTION:

Globally there is shift in disease trend ⁽¹⁾. Earlier infectious diseases being replaced by non-communicable, metabolic and autoimmune disease in developing countries now a days. From census 2001, population residing in urban area was 11.4% in India and this count increased to 31.6% according to 2011 census.⁽²⁾ Rapid urbanization causes changes in food habits, increased stress level and sedentarily life style which are responsible for increasing risk factors of non-communicable diseases. These diseases are driven by forces that includes aging, rapid unplanned urbanization, globalization of unhealthy lifestyle, genetic or lifestyle factors, cardiovascular disorders, cancer, Diabetes, chronic respiratory diseases. Tobacco use, physical inactivity, harmful use of alcohol, and unhealthy diet all increases the risk of dying from a non-communicable diseases. Unhealthy diet and lack of physical activity may show up in people as raised blood pressure,

increase blood glucose, glucose intolerance, hypertension, elevated blood lipids and obesity. These are collectively called as metabolic risk factors which leads to cardiovascular disease, the leading non-communicable disease in terms of premature deaths ⁽³⁾. Metabolic syndrome is a precursor of cardiovascular diseases and type 2 diabetes mellitus and is becoming epidemic worldwide.

An important way to control non-communicable disease is to focus on reducing the risk factors associated with these diseases which includes lifestyle modification, weight reduction, diet management, physical activity, behavior therapy, bariatric surgery. Pathology of Metabolic syndrome occurs due to cross sectional communication between insulin resistance and chronic inflammation. The description of *bahudosha*, *Santarpanjanya vyadhi*, *Medoroga* And *Santarpanajanya prameha* in Ayurvedic science has similarity to Metabolic syndrome. Ayurvedic management of these conditions involves predominantly Ahara(diet management) vihara(physical exercise and stress management) and *shodhana* (purification)⁽⁴⁾.

World health Organization stated that non-communicable diseases are contributing significantly to increasing morbidity and mortality. Its risk factors also imposed large burden on individual and National Health System and economy.⁽⁵⁾

Prevalence rate of non-communicable diseases increasing throughout world. Moreover lifestyle habits and socioeconomic status appear to influence prevalence across age, sex and race. In India 60% deaths occurs due to non-communicable diseases. World health organization in April 2017 updated that globally 2/3 rd death occurs due to Non-communicable diseases and 80 % of that are in low or middle socioeconomic groups. As treatment of non-communicable is costly and difficult its prevention plays major role in its control. Hence there is a need to study solution for non-communicable diseases through Ayurveda.

MATERIALS AND METHOD-

AIM- Management of non-communicable diseases by its risk factors modification through Ayurveda.

OBJECTIVE-

1. Finding pathophysiology and treatment of non-communicable diseases according through Ayurveda.
2. Explaining role of Ayurveda in preventing non-communicable diseases.
3. Modification of risk factors of non-communicable diseases through Ayurveda.

Type of study- Conceptual Study
(Literary study)

MATERIAL-

1. *Ayurvedic* treatises
2. Epidemiological data from world health organization
3. Review articles from Ayurveda on non-communicable diseases and its risk factors like metabolic syndrome
4. Articles related to life style management in urbanized era from Ayurveda and contemporary science.

METHOD

Literary review from various research articles from Ayurveda and contemporary text, previous studies, senses, epidemiological data, updated information available on internet

will be critically analyzed, assessed and evaluated as a problem selected here.

RESULT

According to various scientific articles non communicable disease sharing pathology vis a viz *samprapti* like *Prameha* , *medoroga*, *Ama*, *Santarpanjaniya vyadhi*.⁽⁶⁾

According to Ayurveda *ama* is root cause of all metabolic diseases and degenerative diseases since it blocks *strotas* of micro-channel that nourishes tissue. *Ama* is believed to have anti genetic and pre inflammatory property.⁽⁷⁾

Non communicable diseases are also known as chronic diseases tend to be of long duration and are the result of combination of genetic, physiological, environmental and behavioral factors. Main cause of non-communicable diseases are cardiovascular diseases, Cancer, Chronic respiratory diseases and Diabetes which shows low grade chronic inflammation.

Obesity is a natural consequences of over nutrition, sedentary lifestyle. Persistent obesity deregulate metabolic process including action of insulin on glucose lipid free fatty acid metabolism

and severely affects process controlling blood glucose, blood pressure, and lipids. Thus begins a cluster of conditions, dysglycaemia, dyslipidemia, and hypertension and pro coagulant state known as metabolic syndrome.⁽⁸⁾

Data suggest that obesity and metabolic syndrome are immediate precursors of type2 diabetes mellitus and cardiovascular diseases.⁽⁹⁾

Obesity and *medoroga* both have same causes, signs, symptoms and treatment. This is primarily due to increasing use of mechanized transport and greater prevalence of labor saving technologies at home. The best treatment found for this is limiting food intake and increasing physical work that is nothing but *apatarpana* and *vyayama* that our *acharyas* have mentioned in *chikitsa* of *sthaulya*.⁽¹⁰⁾

Ayurveda also addresses the management of physiologic factors that contribute development of *prameha*. Ayurvedic treatment known as *apatarpana* (balanced diet with restricted calories) and *santarpana* (highly nutritious , high calorie diet intended to increase weight) are recommended for patients with type 2 and type 1 diabetes respectively.⁽¹¹⁾

From above observation it is clear that non communicable diseases mainly arises due to inappropriate dietary habit and sedentary life style. As we all know prevention is better than cure , to avoid non communicable diseases life style modification is given in terms of *Dincharya* (daily regimen), *Rutucharya* (seasonal regimen) these two can be elaborated mainly via two parts of *Ahar* (diet management) and *vihar* (physical exercise and stress management).

Insulin resistance and chronic inflammation are two main reasons for non communicable diseases. Due to this reason chronic inflammation plays a main role in many diseases like Obesity, cancer, diabetes mellitus. Chronic inflammation according to Ayurveda can be correlated with the condition of *ama*. *Ama* is the main root cause of disease, due to *agnimandya* it is responsible for obstruction in micro channels (*strotas*) and causes inflammation and tissue damage.⁽¹²⁾ In *Charak* sutra *sthan* symptoms of *bahudosha* resemble to metabolic syndrome. And treatment of this aggravated *doshas* is by *langhana* (lightning) and *pachan* (digestion) , but these never recur if they subdued with evacuation therapy (*Panchakarma*).⁽¹³⁾

As main reason behind non communicable disease is change in life style , hence life style modification is necessary. *Dincharya* and *Rutucharya* can be coined as physical adaptation by human to acclimatize physiological need of body. The daily regimen (routine) to be followed in order maintain our health is called *dincharya* . All disorders in current era mainly because of daily routine not being followed like eating at irregular time, irregular sleeping pattern thus in order to maintain health *acharyas* have specifically mentioned the routine that has to be followed. The seasonal regimen is to be followed to avoid disease occurring due to seasonal variations. In *rutucharya* specific diet regimens are mentioned to avoid these disease.

CONCLUSION

Due to urbanization disease pattern shift towards non communicable disease. The best management of this is by management of *aahar* (diet management) and *vihar* (exercise , stress management)

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