



Lifestyle Related Health Problems with Special Reference to Women

Dr. (Mrs) Rajeshwari Rana

Professor I/C Women's Studies and Research Centre

Rani Durgawati Vishwavidyalaya

Jabalpur, (M.P.), [INDIA]

Email: rajramesh_jbp@yahoo.co.uk

ABSTRACT

One of the most popular maxims is, "Health is Wealth". However, few of us follow it in the backdrop of contemporary lifestyles and pressures. The growing cases of ill health along with the declining age brackets, for stress induced diseases is the major anxiety of the time. Lifestyle diseases are no longer an urban dilemma but are rampant in rural areas as well. The burden of communicable diseases is being replaced by non communicable such as diabetes, cancer and cardiovascular diseases, which are major public health challenges of the 21st century. They have their roots in lifestyle patterns such as sedentary, non physical activity patterns and adherence to risk behaviors such as smoking, alcohol, stress and so on. A report jointly prepared by the World Health Organization and the World Economic Forum, 2008, says that, the number of people dying from non – communicable diseases is likely to rise to 47 million a year in the next 25 years. Around 80% of these deaths will occur in low and middle-income countries, like India where infectious diseases, poor maternal, prenatal conditions and nutritional deficiencies are prevalent. This paper focuses on investigating the lifestyle related problems with specific reference to women and possible preventive measures

Keywords:— *Lifestyle, Non communicable diseases, Women*

I. INTRODUCTION

One of the most popular maxims is, "Health is Wealth". However, few of us follow it in the backdrop of contemporary lifestyles and pressures. The growing cases of ill health along with the declining age brackets, for stress induced diseases is the major anxiety of the time. Health is a state of physical, mental and social well-being and not merely the absence of disease, as defined by WHO. Lifestyle and health are interrelated It has been proved beyond doubt that physical and mental health go hand to hand. The quality of our health directly impacts the quality of our life. A person who does not enjoy a healthy life can hardly contribute anything worthwhile, either to his own well being or to society at large. On the other hand, a sense of well being generates immunity to fight diseases which consequently leads to a positive lifestyle full of utility to self, family, society and Nation at large.

Health is influenced and moulded by the access to basic needs like food, security, safe water supply, housing, sanitation and other health services. Because, individual health is intrinsically interrelated with social factors, it is necessary to delineate its linkages with the physical, social and economic environment in which people live. Our body is certainly affected by our thoughts. The nature of thoughts and emotions actually determines the physical substance, structure and functions of

our bodies. Medically, this is called as psycho-somatic effect.

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This paper aims at increasing awareness about lifestyle diseases and exploding common myths relating to these diseases and their correlation to our food habits. While the sum effect of all such diseases is felt in the human heart, this paper goes on to explore the diseases, the health friendly food and exercise habits that we should imbibe and the life style changes that we should bring about.

II. METABOLIC SYNDROME

Metabolic syndrome as defined by adult treatment panel is the presence of any three of the following traits in the same individual :-

- (a) Abdominal obesity (waist circumference) more than 102 cms in men and more than 88 cms in women.
- (b) Hypertension causing blood pressure more than 130/85 mm hg.
- (c) Diabetes (fasting blood sugar more than 110 mg/dl).
- (d) Level of HIGH DENSITY LIPOPROTEIN (cholesterol LDL) less than 40 mg/dl in men and less than 50 mg/dl in women and high LOW DENSITY LIPOPROTEIN (cholesterol HDL).
- (e) High triglyceride levels (more than 150 mg/dl).

Metabolic Syndrome is Associated With

- (a) Raised C- reactive Protein (CRP), Interleukin 6 (IL-6) and Tumor Necrosis Factor – alpha (TNF) , reflecting inflammation.
- (b) Raised fibrinogen or plasminogen activator inhibitor – 1, which may result in blood clots.
- (c) Fatty liver, which may progress to non-alcoholic cirrhosis.
- (d) Gallstones.
- (e) Protein in the urine, due to kidney damage.
- (f) Elevated uric acid level from dietary sugars, which may lead to gout.

- (g) Haemochromatosis (iron overload).
- (h) Obstructive sleep apnoea.
- (i) Polycystic ovary syndrome.
- (j) Dementia with aging, and cognitive decline in the elderly.

III. DISCUSSION WITH REVIEW

The clinical significance of elevated plasma glucose, in an obese person, may be indicative of insulin resistance. Where, tissue has a diminished ability to respond to the action of insulin. In a person with normal metabolism, insulin is released from the beta cells of the Islets of Langerhans in the pancreas. This signals insulin-sensitive tissues, including muscle, adipose tissue, and liver cells, to absorb glucose and maintain the circulating blood glucose at a normal level. In an insulin resistant person, the release of insulin does not trigger the expected insulin response of absorption by muscle, adipose tissue, and liver cells; therefore, the circulating blood glucose levels rise. To compensate for increased serum glucose levels, the pancreas secrete more insulin. This compensatory mechanism, referred to as hyper-insulinemia, tries to maintain normal glucose levels.

Approximately 50% of people with hypertension have also been found to be insulin-resistance. Exactly how insulin resistance influences BP remains unclear, however, in many previously homotensive individuals, elevated serum glucose levels seem to precede the development of essential hypertension. In addition to developing essential hypertension and glucose intolerance, these insulin-resistant patients tend to also develop elevated plasma triglyceride levels and low HDLC. All of these findings are consistent with the diagnosis of metabolic syndrome.

The metabolic syndrome is comprised of a number of metabolic disturbances that

include oxidative stress, low grade inflammation and elevated tissue 11 β -hydroxysteroid dehydrogenase, an enzyme that converts inactive glucocorticoids to active glucocorticoids. These metabolic alterations give rise to atherosclerosis and renal disease, endothelial cell dysfunction hypertension, insulin resistance and fasting hyperglycemia (high blood sugar levels), dyslipidemia (low levels of HDL and high levels of free fatty acids in blood) and core obesity.

Metabolic syndrome is driven by many positive feed-back mechanisms, giving rise to a network of vicious interactions that, unless treated, lead to greater and greater disturbances of cell signaling and gene expression and finally leading to life-threatening problems such as heart attack, stroke and renal disease. Metabolic syndrome is predicted to become a major public health problem in many developed, as well as developing countries. Individual and community-wide efforts to change health behaviours are vital. Given the importance of establishing lifelong healthy lifestyle habits, and the emerging evidence that metabolic syndrome is at least partly hereditary, it is never too early for not only adults, but children too, to adopt healthy lifestyles habits.

3.1 The Technical Insight of Oxidative Stress

Inside body at cellular level oxygen enters through the nose and travels to the lungs. The molecule of oxygen then passes through the thin walls of the alveoli in the lungs into the blood and here it attaches itself to the hemoglobin in the blood and the beating heart pumps newly oxygenated blood back to all parts of the body. The hemoglobin then releases the oxygen so that it can enter the cells of the body where it gives energy and life. within every cell in the body is a furnace called mitochondria, within the cell which reduces oxygen by transfer of electrons to create energy in the form of ATP (Adenosine Tri

Phosphate) and produces a byproduct, water. This process goes on without a hitch at least 98% of the time, but the full complement of four electrons needed to reduce oxygen to water does not always happen as planned and a free radical is produced.

The cinder from the mitochondrial fireplace represents a free radical, and the carpet represents our body. Whichever part of the body receives the most free radical damage is the first to wear out and potentially develop a degenerative disease. If it is eyes, may develop macular degeneration or cataract. If it is joint space, one could develop arthritis. If it is the brain, one could develop Alzheimer's or Parkinson's disease. With the passing of time our bodies can look just like the carpet in front of the fireplace: pretty ratty. Together, we have just imagined the "bright" side of oxygen and the life it brings (like the warmth of the fire), but we cannot deny the rest of the story. This is the part many of us have never heard about: the demise that unruly free radicals cause, otherwise known as oxidative stress. This oxidative stress is the underlying cause of almost all of these chronic degenerative diseases.

3.2 Obesity Reduces Cellular Signaling Ability :-

If we can decrease oxidative stress we will ameliorate the disorders associated with metabolic syndrome. Oxidants are produced by the normal metabolism of our cells. Oxidants are also produced as a component of many cellular signaling functions to shape the spatial and temporal aspects of signaling. A normally healthy person contains 20000 receptors per cell, where as an obese person has less than 5000. If the body has less receptors sites then Glucose touches cell wall and returns back without getting converting any energy. This way it accumulates in blood and increase blood sugar, which enters liver and gets converted into fat, making the person obese.

Abdominal obesity is more associated with metabolic syndrome and cardiovascular problems than accumulated fat in the buttocks and thighs. Hence the "apple-shaped" body is more likely to develop cardiovascular disease than the "pear-shaped" body. In clinical practice, the waist to hip ratio is used to diagnose abdominal obesity, and appears to be more significant than the body mass index (BMI). Normal BMI for a person should be 18.5 - 25, 25-30 is overweight and above 30 is categorized as obese.

IV. SYSTEMATIC APPROACH TO A HEALTHY LIFE STYLE.

- (1) Yoga and meditation are ideal to manage stress and reduce chronic ailments. Exercise – walking, jogging, swimming, cycling, sports, martial arts etc also help significantly. Stay active all day: walk, don't ride to the market/bus stop/station/office; stroll in your lunch hour; take the stairs instead of elevator, stand/squat every time you take a phone call; do calf raises at your desk, while standing in a queue, push-ups and crunches while watching TV. Physical activity shouldn't stop with your 45-min quota in the morning.
- (2) Adopt healthy food habits, a glass of lukewarm water, honey and lemon, amla/lauki juice or coconut water, herbal tea/normal tea, rich whole fiber breakfast of cereal, fruit and milk/yoghurt, drink low fat milk or its alternatives-skimmed milk should have not more than 1% or 2% of fat. Lunch should include sprouts, salads, fresh green vegetable/chutney, raita / dal, whole wheat/multi-grain chapattis, chana and soya bean. Include one dark green vegetable and one orange vegetable in your daily diet. Ensure that half of your grain consumption is of the whole grain variety. Light dinner with vegetable soup is ideal at night as we tend to get sedentary and it becomes difficult for our

body to digest extra calories. Take an adequate amount of rest by not compromising on sleep. Avoid non-vegetarian food, have egg white as it builds up the protein in the body. Flavor food with lemon juice, soya sauce, vinegar or herbs. Limit the use of condiments like mustard, ketchup and salad dressing. Observe a fast at least once a week, consuming only little fruits many a times during the day.

- (3) Consume 25-30 grams of dry fruits like almonds and walnut a week as they are important to lower cholesterol. the polyunsaturated fat present in nuts protects the heart and vitamin E present in walnuts defends us against diabetes. The fiber present in nuts interferes with the absorption of fat and keeps people from feeling hungry.
- (4) As the saying goes, 'nature nurtures' it is beneficial to use the goodness which the environment has to offer. For example, cinnamon and chromium have been known to regulate blood. Traditional Chinese medicines and many other herbs are used to cure pancreatic and digestive problems.
- (5) From amongst vegetables, cut down on potatoes, peas, sweet potato and opt for green beans, cabbage, carrot, leafy veggies. Instead, when you crave for crispies, have air popped corn/kurmura or crunchy veggie sticks (carrot, cucumber) instead of namkeen/biscuits.
- (6) Oral health affects arterial health, so it is important to floss teeth regularly to maintain oral hygiene. Reduce abdominal obesity, blood pressure, blood cholesterol level and weight. Drink water (10-12 glasses) throughout the day starting from today. It will cleanse your system and also help you get rid of waste materials that otherwise get accumulated

in your system. Include a lot of fiber, it helps you feel full, get rid of carbohydrates and bloating. Fiber also helps you get rid of water retention.

V. CONCLUDING REMARKS

If all this fails to deliver results, get your thyroid function checked and take proper measures advised by your Doctor. Building healthier and happier communities through systematic approach to the life style, is not an impossible dream but just a matter of awareness and perseverance.

This is to increase awareness about lifestyle diseases and exploding common myths relating to these diseases and their correlation to our food habits. While the sum effect of all such diseases is felt in the human heart and also to explore the health friendly food and exercise habits that we should imbibe and the life style changes that we should bring about.

The paper has specifically targets the women, as they are the ones who are the building blocks of the family's eating habits and lifestyle. Also, they are fast emerging as the new target group of these categories of diseases discussed in the paper above, due to the ever increasing pressures of the modern personal - professional role plays. Through the mothers, the younger generation of our country - the leaders of tomorrow, I hope will absorb the essence and spirit of the subject and the commitment of one another to bring about sweeping changes in our future society and their life style by merely observing their mothers. After all, when we educate a woman, we educate a family. So friends, here's to a healthier and happier India!

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