INTRODUCTION
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Cardiovascular diseases (CVD) consist mainly of coronary artery disease (CAD), peripheral vascular disease and cerebrovascular disease. Most important cause for CVD is atherosclerosis, though it can also be contributed by medium and large vessel arteritis associated with polyarteritis nodosa giant cell arteritis and other collagen vascular diseases. In the past rheumatic heart disease and infectious diseases contributed to CVD but with modernization atherosclerosis remains in forefront. Among various CVD, CAD is associated with considerable morbidity and mortality (1).

Human evolution took place during the Paleolithic period, from approximately 2.6 million years ago to 10,000 years ago. Although the human genome has remained largely unchanged, our diet and lifestyle have changed from those of our ancient ancestors. These changes began approximately 10,000 years ago with the initiation of the agricultural revolution and have been rapidly progressing in the recent decades. Socially, we belong to 21st century, but genetically we remain citizens of the Paleolithic era. Very few people died of heart disease before 1900; subsequently heart disease has become the number one killer in the United States. Before the Industrial Revolution, most people made their living through some sort of manual labor, but with the arrival of automation, life has become less strenuous. Most manual labor was either replaced or assisted by machinery. Modern amenities have made physical activity needless. Along with the change in lifestyle came a change in diet (2). Modern life style associated with easy access to calories dense food, sedentary life style, and excessive television viewing is among the identified contributor to the cardiovascular and obesity epidemics (3,4). Today most of us reside in mechanized urban settings, eating a highly processed diet and line sedentary life. The shift from a physically active life to lack of physical activity is a “modern” phenomenon. Through evolution, humans were born to engage in physical labor which was essential for their survival, but this has changed during the lifetime. The sedentary profile is closely linked to obesity, which in turn intensifies the cardio-metabolic risk (2,5). As a result, we are becoming overweight or obese (6). The lifetime incidence of hypertension (HTN) is 90% (7), and the metabolic syndrome is present up to 40% in middle-aged American adults (8,9). The prevalence of CVD increased sharply between 1940 and 1967 that the World Health Organization called it the world's most serious epidemic (10). Epidemiologist and
many investigators immediately started studying the disease and searching out its causes and cures. A thirty-year study began in Framingham, Massachusetts in 1948, known as the Framingham Heart Study (FHS) (11). It was projected in 1997 that by 2020 two-thirds of the global burden of disease will be attributable to chronic non-communicable diseases. The reported prevalence of CVD in adult surveys has risen four-fold in 40 years and even in rural areas the prevalence has doubled over the past 30 years (12). India already has more than 40.9 million people with diabetes and more than 118 million people with HTN, which is expected to increase to 69.9 and 213 million respectively, by 2025 unless urgent preventive steps are taken (13).

Nutritional changes towards increased fats intake from refined foods and foods of animal origin played a major role in the current global epidemics of obesity, diabetes and cardiovascular diseases, among other non-communicable conditions. Unfortunately, increasingly obesogenic environments, reinforced by many of the cultural changes along with globalization, make adoption of healthy lifestyles, especially by children and adolescents, more and more difficult.

Non-communicable diseases (NCDs) are a major health problem in the world. Epidemiologists in India and international agencies such as the WHO have been sounding an alarm on the rapidly rising burden of CVD for the past 15 years. The proportion of deaths due to NCDs is projected to rise from 59% in 2002 to 69% in 2030 (14). More than 36 million people died from NCDs in 2008, mainly cardiovascular diseases (48%), cancers (21%), chronic respiratory diseases (12%) and diabetes (3%). More than 9 million of these deaths occurred before the age of 60 and could have largely been prevented. Premature deaths from NCDs range from 22% among men and 35% among women in low-income countries to 8% among men and 10% among women in high-income countries. The four leading causes of death globally in 2030 are projected to be ischemic heart disease, cerebrovascular disease (stroke), chronic obstructive pulmonary disease and lower respiratory infections (mainly pneumonia). Total tobacco-attributable deaths are projected to rise from 5.4 million in 2004 to 8.3 million in 2030, at which point they will represent almost 10% of all deaths globally. The deaths from CVD are projected to rise from 7.2 million in 2004 to 8.2 million in 2020 and 9.2 million in 2030 (15). The CVD deaths occurring below the age of 60 years was 53% in India compared to 46.7% in the other
developing countries. In 2005, 53% of the deaths were on account of chronic diseases and 28% were due to cardiovascular diseases alone. It was projected that by 2020, CVD will be the largest cause of disability and death in India (16).

World Health Organisation estimates that India lost 9 billion dollars of national income from premature deaths due to CVD and diabetes in 2005, which is likely to increase to 237 billion dollars by 2015. It is a matter of concern that Indians are developing diabetes, high blood pressure (BP) and heart attacks 5–10 years earlier than their western counterparts in their most productive years. Unfortunately, recent data also show that a significant number of population affected by CVD and its risk factors are of low socio-economic. There is also preliminary evidence that the burden of CVD is increasing in rural areas. Although much progress has been made in the fight against CVD, it still remains the number one killer in India. The burden of CVD will continue to be significantly higher in Indians in terms of illness, disability, death and health care costs (17). In India cost of treatment is a major concern where most of the medicine cost as borne directly by the patient compared to countries where cost is borne by state medical services. It has been reported that medicine costs contribute to 50% of the direct medical cost in India (18,19). The gross national product of India at current prices is about INR 25000 billion of which medicinal cost for CVD could vary from 0.2 to 1.3 % of the gross national product, which is an enormous amount for economically developing country (20).

To control the adverse impact of CVD among populations, the search for the origins and subsequent prevention has started with early epidemiological and later prospective studies. One of the earliest studies namely FHS documented incidence of CVD and its risk factors. This study has become synonymous with the risk factor concept and is the source of knowledge about the risk of CVD in individuals. Risk factors are identified as personal, lifestyle, biochemical, physiological and genetic characteristics, some of which are modifiable while others are not. The modifiable risk factors are smoking, elevated plasma cholesterol, elevated BP, obesity, physical inactivity, excessive intake of alcoholic drinks and possibly stress. The non-modifiable risk factors are age, gender, and family history of CVD (21,22). These all risk factors are called traditional risk factors. However, these were unable to explain complete risk of CVD in any population; hence other risk factors were evaluated in many studies like Multiple Risk
The etiology of CVD is multifactorial and certainly there are many risk factors that are associated with cardiovascular disease. Indians have high incidence of cardiovascular disease which cannot be explained by above said risk factors. Hence many researchers investigated and reported other novel risk factors to explain the increasing incidence and prevalence of CVD i.e. vitamin B12, homocysteine (Hcy), inflammatory markers, macro and micronutrients and presence of metabolic syndrome (25-29). Most of the risk factors have been evaluated in epidemiological studies; there are very few studies which assessed the correlation of traditional risk factors with newer non-traditional risk factors.

Considering the increasing incidence and acute nature of disorder, necessity of improved risk factor determination for cardiovascular disease is essential. In India there are many type of medical practices like Ayurveda, Homeopathic, Unani etc, all have their own logic and science. However, ayurvedic science is thought to be oldest and had originated in India. Ayurvedic principles like vata, pitta and kapha may be checked to estimate risk factors for CVD. Clinical findings based upon ayurvedic system of vata, pitta and kapha would be useful in conjunction with other biochemical and routine investigations. This kind of integrated approach would certainly lead to indentification of more modifiable risk factors. There is an urgent need to integrate various medical practices to cope up this problem. It would help in early diagnosis, preventive management and appropriate therapy in early stages.

With this background we planned a study among subjects with known CAD to evaluate traditional and non traditional risk factors like insulin resistance, inflammatory markers, micronutrients (magnesium, vitamin B12, and folic acid), Hcy, and dietary factors; and their interrelationship and association with “Prakriti” types described in ayurveda system of medicine.