INTRODUCTION

We live in a very special, yet very dangerous time, wherein a new global culture is painfully struggling to be evolved. It is posing us a challenge to integrate human culture and knowledge. It is important at this point of time that this marriage occurs on the level of different scientific fields. If this knowledge can not be integrated, how can we as humans find unity among ourselves?

Āyurveda is an eternal system of medicine that has already integrated eight limbs of healing with in itself, from herbs to surgery to psychology. As such, it offers such a point of unification. Its very basis is the spiritual knowledge of the ancient seers of India and the cosmic consciousness in which they lived.

Apart from the textual meaning of Āyurveda, which is science of life, different scholars perceive differently as to what Āyurveda is? It is not genuine on our part to restrict the usefulness of this system to a particular community or a country or bind it only to the herbalism. It is a science of living that embraces the whole of the life processes. The life in the perspective of healthy life is its goal. My worthy guide Prof. Dr. Jayant Keshav Barde describes Āyurveda as Promotive, Protective, Preventive, Curative and Supportive.

Health is our natural and normal being. We are born healthy. But when ever there comes a breach in health and a gulf is created, we look forward for such measures which can cure, protect, promote and support us and help in preventing the further state of being unhealthy. Nature, the mother of all the living is always ready and eager to answer our calls. What is required on our part is to pick the genuine.
A lot of reverence is attached to the plant kingdom in our culture. So much so that in ancient times friendship with plants was the way for there protection and preservation. Similarly, some plants were declared as sacred. We find a verse in praise of the drug under reference which translates as “One who is away from his mother or who has lost his mother can depend upon Haritaki as his mother”. This quotation itself testifies the usefulness of Haritaki as a drug. This drug has a wide therapeutic range from the diseases of Gastro intestinal tract to Nervous disorders, from Skin ailments to Urinary tract disorders and from Cardio-vascular disorders to Geriatrics. It has particularly been postulated that it cures with success the disease conditions emerging out of blocking of micro and macro channels of the body particularly because of over-saturation and over-nutrition, which is a bitter reality of the present day’s affluent society.

Affluence and prosperity are the key words associated with most of the metabolic disorders of the present day’s society. Added to it is the stressful and choking atmosphere which further precipitates and ignites life threatening incidences. “Hypercholesterolemia” brings in its wake the conditions like Atherosclerosis and Ischemic Heart Diseases in sequence. Approximately 1.5 million adults continue to suffer from a heart attack each year in the United States alone; over half a million of them die each year. The situation is even worse in countries like Canada, England, Germany, France, Holland, Yugoslavia and Russia. There are more heart attacks per 1000 adult population in almost all of these countries as compared to the United States. The incidence of CHD in India is also fast catching up with that of developed countries. Over 24 million suffer from heart ailments in India now. A 1993 survey of the urban Delhi population shows the prevalence of CHD to be 31.9 per thousand adults. There is concern over the increasing incidence of CHD among people below 40 years in India as
compared to people below 50 years in the West. One in ten heart attacks occur in people below 40 years (Gupta 1996). The emergence of CHD as the leading cause of death has been attributed to certain risk factors of which the greatest importance is attached to hyperlipidaemia, the condition in which lipids are present in excess in the blood (Kannel 1966).

To reduce the prevalence of high blood cholesterol among Americans an organization, NCEP was founded in 1985. It is a multidisciplinary coalition with a Coordinating Committee comprised of representatives from more than 40 major medical and health professional associations, voluntary health organizations, community programs, and governmental agencies. The National Cholesterol Education Program (NCEP) has issued major new clinical practice guidelines on the prevention and management of high cholesterol in adults. The guidelines are the first major update from NCEP in nearly a decade. Key changes in the new guidelines are: more aggressive cholesterol-lowering treatment and better identification of those at high risk for a heart attack; use of a lipoprotein profile as the first test for high cholesterol; a new level at which low HDL (high-density lipoprotein) becomes a major heart disease risk factor; a new set of "Therapeutic Lifestyle Changes," with more power to improve cholesterol levels.

The present set of treatment employed for the management of Hypercholesterolemia, the initiator of serious clinical manifestations which often turn fatal, is not yielding satisfactory results and giving rise to a lot of other serious problems.

The management of such disease conditions as that of Hypercholesterolemia which according to the Ayurvedic system of medicine in broader sense can be put under the class of Santarpana Janya Roga or diseases arising out of over-saturation has been dealt in with detailed sets of
treatment and management including a definite change in life-style (Nidāna Parivarjana). Keeping in view the aetio-pathogenesis (Doṣa–Dusya Sammūrchana) of the disease Hypercholesterolemia and the consideration of the pharmacological properties of Harītakī, the present study was designed to evaluate its classically mentioned efficacy in the management of Hypercholesterolemia in the light of the scientific developments of today.
SELECTION OF TOPIC

The very root meaning of the word ‘Panacea’ can be undoubtedly implied to the multifaceted properties possessed by “Haritakī (Terminalia chebula)”.

The study entitled “Effect of Haritakī (Terminalia chebula) in Hypercholesterolemia” is based upon the classically mentioned properties of Haritakī as Üṣna Vīrya (hot in potency), having predominance of Kaśaya Rasa (Astringent in taste) despite the presence of all the four other Rasas except Lavaṇa (Ca. Si. 1 : 34), Yogavāhi (Ra. Ni. 11 : 216), Pācaka (Ca. Ci. 1 : 34) and in the disease conditions caused due to over nutrition (Ca. Sū. 23 : 18) and its anti-hypercholesterolemic effect which was studied in cholesterol induced atherosclerosis in rabbits (Thakur, C. P. et.al., 1988). The study indicates the better anti-hypercholesterolemic effect of Haritakī in comparison with that of Āmalakī (Emblica officinalis) and Vibhītaka (Terminalia belerica). Our preliminary clinical observations also indicated the effect of Haritakī as a good and safe anti-hypercholesterolemic drug which is well tolerated to the patients without any adverse reaction and can be taken for longer period without involving much cost. Moreover, it is easily available.

The diseases of over-nutrition and over-saturation are now a days not confined to only developed countries. Incidences of such disease conditions are alarmingly increasing in developing countries like ours which is the main contributory factor for Ischemic Heart Diseases (IHDs). Although a score of reasons play their part in the causation of IHD but the leading cause of death has been attributed to certain risk factors of which the greatest importance has been attached to Hyper-cholesterolemia.
AIMS AND OBJECTIVES

1. To clinically evaluate the effect Haritaki in Hypercholesterolemia.

2. To investigate the lipid lowering effect of the drug in hypercholesterolemic albino rats.

3. To study the acute toxicity of the drug in albino rats.

4. To findout the toleration of the drug to the patients and adverse effects, if any.

5. To Standardize the drug Haritakī (Terminalia chebula) before its administration.
PLAN OF WORK

The work was planned and carried out in following stages:

I. Review of literature

II. Drug standardization
   a) Preparation of drug
   b) Microscopic analysis
   c) Quantitative analysis
   d) Thin Layer Chromatography
   e) Solubility and X-ray analysis
   f) Determination of Rasa and its taste threshold

III. Pharmacological study
   a) Toxicity study
   b) Anti-inflammatory activity study

IV. Clinical study