Summary and Conclusion
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Since the beginning of twentieth century various attempts have been made to understand the phenomenon that occurs in the growing process from younger age to old what is known as gerontology which had started developing only about eighty years ago. Cytological, biological and medical investigation during ageing process are based mostly on clinical findings. Once upon a time in seventeenth century, life expectancy was only around sixty years of age but with the control of mortality and development of medical science the expectancy life has increased considerably but even then expectation for increased expectancy of life in people has grown in absolute and relative terms.

As the age advances two phenomena occur 1) a physiologic decline and 2) increase in disease. The physiologic functional status decreases in most organ systems gradually. Diseases of acute and chronic nature due to different aetiological factors become more common as age advances. The molecular and cellular events lead to decrease in the internal homeostatic adjustment and is responsible for increase in the vulnerability of the organism to the environment.

There are certain plants and seeds in Ayurveda which have been levelled as important agents that are capable of postponing the ageing
process and if they are taken daily they can decrease the disability in old age but while haunting the literature no scientific data in the proper perspective was available in order to prove the efficacy of those agents. A number of such agents exist. *Asparagus racemosus* root extract and *Mucuna pruriens* seed extract are important ones.

It is evident that in all industrial societies major causes of death in aged individuals are ischaemic heart disease, cardiovascular stroke, cancer and infectious diseases.

In view of the fact that homeostasis in the interior of the body is largely dependent on the endocrine status of the individual, and since carcinomatous growth has been shown to be associated with changes in polyamine metabolism in old age, in the present study an attempt has been made to correlate the action of extract of *Asparagus racemosus* root and *Mucuna pruriens* seed with endocrine profile and polyamine metabolism in two age groups one from forty to fifty nine years and other from sixty to seventy five years of age.

Since most of the deaths of old age are due to cardiovascular and coronary heart diseases (CHD) and in view of the relationship of CHD with the lipid profile of the individual, effect of these two herbal extracts have been studied on lipid profile of individuals in the same age group. Decline in gonadal activities with the advancement of age has led us to study the gonadal hormonal status in both these groups of individuals.
The status of polyamines in these individuals has also been studied for their relation to carcinogenesis.

It is well established that polyamines are required for the formation of nucleolus, Oocyte maturation, rodent embryogenesis and for appropriate embryonic development (Fozard et al 1980). Polyamines have been found to be increased in renal and cardiac hypertrophy as well as in regenerating liver (Pegg, 1981), different types of leukaemia (Banerjee et al 1998), Skin, breast and rectal carcinoma (Chanda and Ganguly, 1988), change in protein DNA and RNA content in human breast, rectal carcinomatous tissue (Chanda and Ganguly, 1990), in human brain tumor (Chanda and Ganguly 1991), in human ovarian and cervical carcinoma (Chanda and Ganguly 1995), Putrescine and GABA profile in human breasts, rectal, cervical and ovarian Carcinoma (Bandopadhyay and Ganguly 1999; 1999; 2000; 2000.

But the reduction of different biogenic fractions like Putrescine, Cadaverine, Spermine and Spermidine in the serum of individuals for the present study is highly indicative of the fact that they are absolutely normal individuals having no neoplastic involvement. On the other hand Asparagus racemosus and Mucuna pruriens treatment have reduced the levels of biogenic amines in them.

It appears that both Asparagus racemosus and Mucuna pruriens treatment of individuals bring about an increase in metabolic activities by
involving thyroid glands and by increasing muscular activities. The decrease in serum triglyceride and cholesterol levels under both situations also indicate that activities of the individuals increase to a large extent. The rise in HDL cholesterol level appears to be cardio protective in them. It is also to be noted that both serum gonadotrophins (FSH and LH) along with testosterone level significantly increased following *Asparagus racemosus* root extract and *Mucuna pruriens* seed extracts.

These observations produce evidences that both *Asparagus racemosus* and *Mucuna pruriens* are concerned with well being of the individual, increase in metabolic activities, decrease hyperlipidemic dangers to life, increase cardioprotective effect through HDL and a rise in gonadal activities through increase in male hormone level. In other words, it appears that both *Asparagus racemosus* and *Mucuna pruriens* may be used for controlling the ageing process.

Conclusion is related therefore: 1) Both groups of *Asparagus racemosus* and *Mucuna pruriens* treated individuals experienced increase in gonadotrophins (FSH & LH) reflecting increase in gonadal activities and thus bringing about improvement in sexual status even at an older age. Increase in testosterone level by these two extracts is an indication of the fact that anabolic effect besides gonadal activity too had increased.
2) In both groups of individuals treated with *Asparagus racemosus* root and *Mucuna pruriens* seed extracts Serum T3 and T4 had increased suggesting that there was increase in the functional status of thyroid gland and thereby an increase in general metabolic activity.

3) The decrease in serum cholesterol and triglyceride and increase in HDL-Cholesterol by both these extracts indicates that there would be reduction in coronary heart disease attack and cardiovascular accidents as risk of vascular disease accident has been shown to be dependent on serum lipoprotein levels.

4) The reduction of different fractions of biogenic amines like Putrescine, Cadaverine, Spermine and Spermidine in serum of individuals treated with the *Asparagus racemosus* root extract and *Mucuna pruriens* seed extracts shows the persons were normal and absolutely free from any neoplastic involvement. This does not prove however, that *Asparagus racemosus* and *Mucuna pruriens* seed extracts can prevent carcinogenesis.

5) Serum Creatinine level was found to be significantly low in *Asparagus racemosus* treated individuals in both age groups whereas *Mucuna pruriens* treated individuals showed a significant rise in serum creatinine level in both forty to fifty nine and sixty to seventy five years age group of male individuals. *Asparagus racemosus* treatment had an
effect like that of steroid, whereas *Mucuna pruriens* treatment did not have such effect.

It appears that individuals at old age continue to enjoy normal, cellular, metabolic and gonadal activities which indicates that ageing process is postponed and individuals would live longer if *Asparagus racemosus* root extract and *Mucuna pruriens* seed extract is taken by them on regular basis and the incidence of carcinogenesis is possibly reduced in them.