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Ayurveda

AN AYURVEDIC OUTLOOK ON HEALTH STATUS OF ELDERLY POPULATION ASSESSING THE GERIATRIC ISSUES: A SURVEY STUDY

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ABSTRACT Ageing is natural, inevitable, irreversible, always progressive, biological process associated with decline of physical and mental functions. Ageing occurs at different levels -Social, behavioural, physiological, morphological, cellular and molecular. Many systemic problems and disabilities found in old age due to structural and functional changes of body. Health problems in elderly are discussed earlier, are mostly due to Social unawareness, unawareness of the lifestyle & dietary habits. According to Ayurveda for Kalaja jara, certainly medicine is not looked-for elderly individuals, nonetheless ensuing appropriate Dinacharya module in framework of health prevention aimed at graceful ageing can be favorable in deferring the progress of aging accompanying health issues. This paper critically reveals the geriatric issues and recommends adoption of a holistic lifestyle with appropriately adopting Dinacharya module and a stress-free living which can prove to be an effective perspective in geriatric population.

INTRODUCTION:
Getting old is a natural process, which an unescapable state of human body. Ageing is natural, inevitable, irreversible, always progressive, biological process associated with decline of physical and mental functions. Ageing occurs at various levels -Social, behavioral, physiological, morphological, cellular and molecular. Many systemic problems and disabilities found in old age are due to structural and functional changes of body. Old age transmits many health problems so , health is most imperative factor as it is directly effects the quality of life.

The older population is growing faster than the total population in practically all regions of the world and the difference in growth rates is increasing.1According to population census 2011 there are nearly 104 million elderly persons in India but by the year of 2016 they will be about 113 millions2. By 2050, less than One-fifth of the world population will be older than 65 year.3In India, the elderly people are suffered from both communicable as well as non-communicable disease. Due to old age some geriatric problems are found, those are osteoarthritis, hypertension, urinary incontinence, arthritis, atherosclerosis, cardiovascular disease, respiratory disease, senile dementia, delirium, insomnia etc.

It is important to distinguish normal aging that is universal biological changes that occur with advancing age and are unaffected by disease and environmental influences which is known as chronological aging and according to Ayurveda Kalaja jara (natural aging).

Health problems in elderly as discussed earlier, are mostly due to Social unawareness, unawareness of the lifestyle & dietary habits. So, According to Ayurveda for Kalaja jara there is no medicine for elderly individuals but following proper Dinacharya module in context of prevention of problematic health condition for graceful ageing can be beneficial in delaying the progress of aging and associated health issues. In contrast, the accelerated ageing is strongly affected by environmental, lifestyle, and some disease conditions that are related to ageing but not due to aging itself. This condition is accordingly known as akalaja jara.4

This study critically reveals the geriatric issues based on ayurvedic parameters from Kashyap samhita khilasthan and recommends adoption of a holistic lifestyle with appropriately adopting Dinacharya module for a stress-free living which can prove to be an effective perspective in geriatric population.5

AIM & OBJECTIVES:
Assess the present health status of elderly population and analyse the geriatric problems based on Ayurvedic parameters and propose a

Dinacharya module to improve their life.

MATERIALAND METHODS:
An observational survey study was conducted in Katraj, Pune. The study recruited a population of 150 elderly individuals by Simple random sampling method selection of a representative samples were 65 years and above aged. Interview with them by using Case report forms which covered self perception of health, vision, hearing, oral health, addiction (if any), physical and social activity, mental health, medications used. Informed Consent was taken before participation in the study and study details were explained to the participant prior study. The study was cleared by Institutional Ethics Committee of, Bharati Vidyapeeth Deemed to be University College of Ayurved, Pune.

Following inclusion and exclusion criteria's were used for registration of Elderly Individuals for present survey study.

Inclusion criteria:
• Elderly Individuals above age of 65 years has been taken.
• Elderly Individuals of both sex has been included.
• Elderly Individuals who were present at the time of visit, who were willing and provided the written consent has been selected.

Exclusion criteria
• Individuals aged of below 60 years.
• Who was not in condition to reveal the health status
• Elderly individuals who were critically ill and bed ridden were not included in this present study.

All the individuals have been studied along with the registration by noting down their demographic profile including their age, sex, address, occupation, education, socio economic status, marital status, life style, addictions, dietary habits etc. After preliminary registration, Individuals were subjected to detailed case history taking, physical, general and systemic examinations. In history and examination importance was given to mental status examination. During this all other relevant information's like Ashtavidha Pariksha and Dashavidha pariksha including assessment of Sharirika Prakriti and Manasika Prakriti (based on the features described in classical texts) etc. were noted.

Criteria of Assessment
Both subjective and clinical improvements were employed for assessment of the impact of the survey. Subjective criteria of evaluation included the observations of individuals and assessment of the physician.

Following are the Objective parameters of the study:

1. OBJECTIVE PARAMETERS:

a)Pulse
b)Blood pressure
c)Respiratory rate
d) Height of the patient
e)Weight of the patient
f)BMI

2. SUBJECTIVE PARAMETERS:

Following are the subjective parameters of the study:

1.Annabhilasha (Desire for food):	
A)Timely Manifestation of Hunger	Grade 0
B) Occasional Loss of interest in food intake	Grade 1
C) Disinterested to take food always	Grade 2
2) Bhuktasya paripaka(Easy digestion of food)	
A) Easy digestion of food	Grade 0
B) Occasional disturbance in digestion	Grade 1
C) Always feel indigestion	Grade 2
3)Srustavinmootratwa (Excretion of feces and urine)	
A) Normal	Grade 0
B) Occasional disturbance	Grade 1
C) Untimely and disturbed	Grade 2
4) Sharrerasya Laghavam (Lightness of body)	
A)Feels lightness and enthusiastic	Grade 0
B)Occasional disturbance	Grade 1
C)Feels heaviness and laziness	Grade 2
5)Suprannaedriyatwa(Well functioning of indriyas)	
A)Indriyas are well functioning	Grade 0
B) Occasional disturbance	Grade 1
C) Always disturbance in functioning ofindriyas	Grade 2
6)Sukhaswapnaprabhodanam (Comfortable sleep and awakening)	
A) Normal comfortable sleep and awakening	Grade 0
B)Occasional disturbance	Grade 1
C)Always disturbed	Grade 2
7) Soumanasya(Happiness)	
A)Feels happiness and cheerful	Grade 0
B)Occasional fluctuation	Grade 1
C)Always disturbed and depressed	Grade 2
8) Agni	
A)Samagni	Grade 0
B)Tikshnagni	Grade 1
C)Vishamagni	Grade 2
D)Mandagni	Grade 3

All theindividualsregistered for the survey were especiallyconcerned to find out the health status of elderly individuals based on objective and subjective parameters

Observation and result:

A total number of 150 individuals were considered in this study, Out of them, 34% individuals were from age group of 65 -70 years, 36.66% individuals were from age group of 71-75 years, 16.66% individuals were from age group of 76-80 years and 12.66% elderly individuals were from 81 years and above.47% were male and 53% were female. 33% individuals were vegetarians and 67% elderly individuals were consuming mixed diet i.e. those individuals were taking vegetarian and non vegetarian food.

The number of male individuals were 70 out of which 14.28% were illiterate. 24.28% comprises of the individuals who had primary education.21.42% were the individuals who had secondary education.25% individuals were having high school education and 8.57% were the individuals who studied up to graduation level. On the other hand out of 80 individuals who were female; 18.75% female individuals were illiterate, 27.5% were the female individuals who had primary education, 22.5% were the female individuals who had secondary education and 31.25% were the individuals who had high school education. 84% Elderly individuals were having moderate Socio economic status, 8.66% Elderly individuals were having High socio- economic status, 7.33% elderly individuals were having Low socio-economic status.

The 1st observed addiction was smoking; smoking as previous addiction was 26.66% and of the present addiction was 7.33%in male, where as in females the previous and present addiction was found to be 0%. The 2nd observed addiction was tobacco chewing; in this category the male percentage of previous addiction was 45.33% and of the present was 6.66% where as for the females the previous addiction was found to be 2.60% and the present addiction for this category was not present. The 3rd observed category was mishri, in the following category the male addiction for the previous segment was found to be 1.33% and the present was also 1.33% on the other hand female addiction for previous segment was 16% and for the present13.33%.The last observed category was alcohol consumption. In this category for the males the previous addiction was found to be 30% and the present addiction was found to be 0% on the other contrary the female addiction for both previous and present was absent. Considering Sleep,60% were having disturbed sleep, 40% elderly individuals sleep pattern was normal.,18.67%individuals were underweight,17.33% elderly individuals were overweight, 12.67% elderly individuals were obese, while 51.33% elderly individuals were found healthy.42% individuals were having complaint of constipation and remaining58% of individual's bowel habit was normal. 48% individuals were having normal mutrapravritti and 52% individual's mutrapravrutti was disturbed.56% elderly individuals were having vata-pitta prakruti, 30.66% elderly individuals were having pitta-vata prakruti, 10% elderly individuals were having vata-kapha prakruti, 3.33% individuals were having Pittapradhan-kapha prakruti. Elderly individuals of Vata-Pitta and Pitta-Vata prakruti were having maximum in number in this study.

36% were doing regular exercise, 52% individuals were doing exercise occasionally and 12% elderly individuals were not performing any exercise. It means half of the total individuals were doing exercise occasionally whereas around 35% were doing exercise regularly.
18.67% were having diabetes mellitus,16% of elderly individuals were having Hypertension,50.67% individuals were having Diabetes mellitus as well as Hypertension .59.33% elderly individuals were having Joint Pain. 14.66% elderly individuals were having Bilateral Deafness, while 4.70% & 6% elderly individuals were having Right ear and left ear deafness respectively.14.66% elderly individuals were having Senile cataract and 18.66% elderly individuals were suffered from Bronchial Asthma.

Jara Lakshanas: : 72.66% individuals were having Nidranash,25.33% elderly individuals were having Karnabadhirya, 14.66% elderly individuals were having Twak rukshata/Kandu, 39% elderly individuals were having Drishtikshaya, 59.33% elderly individuals were having Hastapadasandhishoola,14.66% elderly individuals were having Karnabadhirya and Drishtikshaya both,44.66% elderly individuals were having Malavashtambha.

Following are the Subjective parameters which are used as health parameters for the study:

ANNABHILASHA: 53.33% Individuals were observed in Grade 1 i.e. they were having occasional loss of interest in food intake, while 28% elderly individuals were observed in Grade 0 i.e. timely manifestation of hunger and 18.67% elderly individuals were found in grade 2 i.e. they were having disinterested to take food always.

BHUKTASYAPARIPAKA:40% of elderly individuals were from Grade1i.e.occasional disturbance in digestion ,44.67% elderly from Grade 0 i.e. easy digestion of food, and 15.33% elderly individuals were from grade 2 Bhuktasyaparipaka i.e. always feel indigestion.

SRUSHTAVINMOOTRATWA: 33.33% individuals were from grade 0 i.e. excretion of feces and urine was normal.56% elderly individuals were from Grade 1 i.e. occasional disturbance was observed,10.67% individuals were from Grade 2 i.e. excretion of feces and urine was untimely and disturbed.

SHARIRASYA LAGHAVAM: 46%individulas were from Grade 1 i.e.those were feeling occasional disturbance in lightness of body and 26% elderly individuals were from Grade 0 i.e. they were always feel enthusiastic, 28% individuals from Grade 2 i.e. they were feel laziness in the body.

SUPRASANNA INDRIYATVA:33.33% individuals were from

Grade 0 i.e.their indriyas were well functioned,46.67% individuals were from Grade 1 i.e. their occasionally disturbed,20 % individuals were from Grade 2 i.e. always disturbance in functioning of indriyas. SUKHASWAPNAPRABHODHAKAM: 20% individuals from Grade 0 i.e. they were having normal and comfortable sleep, 46% elderly individuals from Grade 1 i.e. occasional disturbance in their sleep, 34% elderly individual's sleep was always disturbed.

SOUMANASYA:20%individuals were from Grade 0 i.e. they always feels happiness and cheerful. 46% individuals were from Grade 1 i.e. occasional fluctuation in their mood and 34% elderly individuals were from Grade 2 i.e. those individuals were always disturbed and depressed.

AGNI: 6% individuals were having Samagni i.e. Grade 0 and 8.67% individuals were having Tikshnagni i.e. from Grade1 Agni status was of Grade 2 and Grade 3 in 46.67%&38.67% of elderly individuals i.e. they were having vishamagni and mandagni respectively

DISCUSSION:
Elderly population and their health related issues is one of most alternative areas in the health care sector. Considering the territory of our subject, it was planned to assess the present health status in elderly population. Acharya Kashyap has mentioned the parameters of healthy person in Khilasthan 5/6 -8 those were used as subjective parameters in this present study.After the assessment of their health status, Dinacharya module was suggested accordingly so as to improve it or maintain it.

Most of the elderly individuals were of vata-pitta and pitta-vata predominant prakruti. having complaint of constipationdisturbance in micturition, Diabetes mallietes , Joint pain andNidranasha and malavashthambha these jara lakshanas.

Following are the observations which were found in elderly individuals based on Subjective parameters.

- Annabhilasha: It is observed that Annabhilasha in elderly individuals is relatively less.Annabhilsha is related to abhyavaran shaktiinold age. It is obvious that abhyavaran shakti in old age is relatively less due to vata dosha predominance and diminished agni bala .
- Bhuktasya paripaka: It is observed that occasional disturbance in digestion is predominant among elderly individuals.
- Srushtavinmootratva: Disturbance was observed for excretion of feces and urine among elderly individuals.
- Sharirasyalaghavam: Lightness of body is naturally hampered in old age. Maximum individuals have slight heaviness and laziness in the body.
- Suprasannaindriyatwa: Suprasannaindriyatwawhich is considered to be Vimalatwa ofindriyas. It means their functioningis at their best.But here, the functioning of indriyaswas not normal.This is obvious in the old age peoples.
- Sukhaswapnaprabodhakam: It was observed that sleep is disturbed in elderly individuals.
- Soumanasya : Due to progressive ageing fluctuation in the mood of elderly individuals is common occurance.
- Agni: It was observed that Vishamgni and Mandagni are common in elderly individual. Vishamagni is due to predominance of vatadosha and Mandagni is due to either kapha or dhatudourbalya, which is generally seen in elderly individuals.

Nidranasha,Twacharukshata,Karnabadhiray,Drushtikshaya, Malavashtambha these Jara lakshanas were found during this study. Various ailments associated with old age individuals can be alleviated/controlled by adopting a Dinacharya module, stated in classical texts of Ayurveda i.e. by Acharya Charak,Sushrut and Vagbhat. In this survey study conducted, it was observed, some of the ailments are commonly associated with old age which are as follows:
1.Nidranash: Sleep disturbances was observed in 60 % of old age individuals. For such elderly individuals, following dinacharya module was suggested.

a. Pratimarsha nasya: In Nidranasha,Acharya Sushruta has mentioned Pratimasrsha nasya as one of the modalities, The nasa is opening of mastishka, hence nasya may nourish it and help to work against nidranash. In elderly individuals Nidranasha is present because of vitiation of vatadosha, which is explained as Vataja nanatmaja vikara and a vatavriddhi lakshana . So by the daily application of pratimarsha

nasya may result in alleviation of vata dosha and raja guna.

b. Abhyanga: Abhyanga is one of the dinacharyamodalities and an ancient Indian ayurvedic approach adopted for healing, relaxation and treating various diseases. In nidranasha, there is vitiation of vata and raja guna of mana so by the application of snehana , abhyanga should be done to the most important parts such as shira (head), shravan(ear), pada(foot).The massage has a very soothing effect on nervous system, which is governed by vata dosha . It will help in jara (retards ageing), shrama (exertion) and pacifies vata, induces sleep. Abhyanga increase the level of neuron transmitter serotonin and produces sound sleep in elderly persons.

c. Shirobhyanga: Application of Sneha through abhyanga on the most important part of body like Shirathis procedure is called as Shirobhyanga. According to Acharya charak And Sushruta shirobhyanga will be effective in rejuvenating the indriyas, providing Bala and induces Sleep/Nidra.

d. Padabhyanga:Application of oil to the feet is called as Padabhyanga. Padabhyanga is beneficial in eliminating Shrama,Supti and therefore inducing sleep(Nidrakarak).

f. Samvahana:Samvahana means mild massage on body parts. In Nidranasha there is vitiation of vata dosha and tamoguna. To alleviate this, Samvahana will help to produce good sleep, By doing samvahana tiredness in the body gets minimized and it is ultimately sukhakarak.
2. Karnabadhirya: Karnabadhirya has been found in 25.33% of elderly individuals. For such elderly individuals following dinacharya module can be advised,

Nasya: In Karnabadhirya one, can suggest a Marsha nasya but up to the age limit of 80 years. In jara there is indriyahani due to vitiation of vata dosha which may lead to Karnabadhirya. For Marsha nasyasneha dravya should be used, By proper administration of nasya induces lightness of head, easy sleep and awakening, cures the disorders, bring clarity of sense organs and cheerfulness.

3. Drushtikshaya: Drushtikshaya was found in 39%elderly individuals ,following Dinacharya can be advised to improve their vision,Padabhyanga will be helpful in such jarajanit drustikshaya.

a.Padabhyanga: Daily practice of Pdabhyanga which helps to improve the sleep, vision and pacifies vata dosha.

b.Nasya: The procedure in which medication are applied to the nostril in a specified manner to nourish the organs above the clavicle known as Nasya. Nasal cavity structures have direct communication with the sensorineural structures of brain and this is a natural gateway to brain. Due to anatomical communication, the medicine applied through nasal cavity reaches to "Sringataka Marma" (cavernous sinus) which is the seat of all the centers of vision, hearing, smell, and taste. One who practices Anutaila as Pratimarsh Nasya (small dose of medicated oil) 1-2 drop in each nostril, gets a better vision and power of other sense organs remain intact and defects free.

4. Twacha rukshata :Twacha rukshata was found in 14.66% individuals to overcome this rukshata of skin following Dinacharya can be suggested.

a.Abhyanga: By doing massage by medicated oil i.e. massage done with the help of sneha dravyas. In elderly individuals, skin becomes dry, there is attenuation of skin luster this is due to vitiation of vata guna, so to overcome this abhyanga may be with snehan dravyas have been advised. Abhyanga has opposite properties that of vata so it alleviates the vata. In abhyanga procedure sneha dravyas applied over the skin which is seat of bhrajaka pitta. According to acharya charaka bhrajak pitta is responsible for complexion of skin. Abhyanga improves the function of sebaceous gland and sweat glands, which keep the skin lubricated so there is shaman of ruksha guna of vata.

b.Ushnajala snana: Ushnajala snana is indicated those who were suffered by twak rukshata, taking bath is auspicious, enhances virility, longevity, strength, at the same time cures tiredness, sweat and impurities of the body. After doing massage if one takes bath with ushnajala, person will be cured of body odor, heaviness of the body, itching, good for health, cures drowsiness, gives pleasure, enhances agni and clear the blood.

4.Malavashthambha:Malavashtambha was found in 58% of elderly individuals.

a.Ushnajalapana: Malavashtambha was found in elderly individuals due to viktrut karma of vata dosha i.e. due to apan vayu dushti. To treat this problem Ushnajalapana will be helpful. Benefits of Ushnajalapana has explained by Ashtang Hriday Sutrasthan that it stimulates hunger, helps in digestion, cleans the urinary bladder, relives hiccups, flatulence it.

b.Samvahan: Samvahana on whole body especially on pindika/both leg, may stimulate Apana vayu gati and hence has to be conducted. Pindikodisthan is one of the symptoms in mala vega dharan.

5.Hastapadasandhishoola:
a.Abhyanga: Abhyanga will be very helpful those who were suffered by pain in the extremities. Daily application of abhyanga will be helpful to elderly individuals those are suffering from joint pain.

b.Samvahana: Samvahana minimizes tiredness of the body and acts as Sukhakaraka i.e. alleviates pratikula vedana and induces anukula vedana specially related to mamsa and asthi dhatu.

The geriatrics problems those have been found during survey in elderly individuals can be cured by suggesting a Dinacharya module which can be easily followed.

CONCLUSION:
This study concludes that, the present health status was moderate in elderly individuals.Amongst all Swasthalakshanas explained in Kashyap samhita, Agni was found to be most hampered in elderly individuals.Nidranasha and Malavashthambha are one of the most common problems in elderly individuals included in this study.pratimarsha nasya, abhyanga, shirobhyanga and samvahana was advised for nidranasha.Individuals with complaint of malavashthambha were advised ushnajalapanaand samvahana Dinacharya module with respect to their dominant health problems has been recommended.

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