

Santhigiri Ayurveda Medical College

NEWSLETTER

Vol: 01 / Issue : 12 / September 2019 / Monthly Publication

Editorial

Gurucharanam saranam

Dear friends, this month is a mixture of joy and sorrow to share with all of us as there are occasions to celebrate like Navapoojitam the Jayanti Day of Navajyoti Sree Karun'aakaraguru, the founder of Santhigiri Ashram, Vinayaka caturthi, Onam, and Vaamana jayanti; and to share our grief on the occasion of the sudden demise of the senior most member of Gurudharmasabha, our beloved and revered Sarvaadaran'eeya Svami Satyaprakasha Jnana Thapasvi, the President, Santhigiri Ashram, Trivandrum and natural calamities (though mostly man made) like flooding and landslides inside Kerala and in other states .

On 93rd Navapoojitam, the Birthday of Sree Karun'aakaraguru lets have a word on " Nava Aarogyadharmasiddhaanta" the integrated medical system where knowledge of all systems of medicine can be utilized for benefit of human beings (all beings infact) which was envisaged and propagated by Guru. Though it seems some similarity between the Nava Aarogyadharmasiddhaanta and recently drafted National Medical bill for which there was wide spread opposition, the former theory gives more importance to the previous deeds resulting in disease conditions, the theory of Doctrine of Karma, which is also accepted in Aayurveda, other Indian medical sciences, Jyotisha etc. Each system has its merits and those merits should be properly applied in disease management and prevention e.g., Aayurveda in life style & non-communicable diseases and also in prevention of diseases, Allopathy system of medicine in acute infectious diseases and surgery , Yoga in prevention and managing many life style disorders along with personality integration and other systems of medicine Siddha, Homoeopathy, Naturopathy etc in their own areas of disease management like cheap and cost effective treatment, palatability, non-invasive nature etc. Such integrated practice of medical sciences can be possible only by the broad minded whose ultimate aim is to serve the human kind instead of quarreling for narrow personal gains. This should not be misunderstood as professional of one system practicing another system in which he or she is not trained. Those days are not far away when professionals of different

medical systems will sit together around one table discussing management strategy needed for a patient as awareness on merits and limitations of a particular medical science is growing among common people day by day.

The recent floods and land slides, though we say natural calamities, are man made. As per the doctrine of karma and as said in Janapadoddhvamsavimaaneeya of Carakasamhitaa, an individual or a group of individuals are responsible for they are and what they have. It is the "prajnaaparaadha" resulting in "adharm" or "poorvakr'ta asatkarma" by human beings which causes distress in nature and thereafter various epidemics of mass destruction.

On various intervals, as said in Vivekacood'aaman'i, the great saints are born to show the righteous path and bless this world. In this 'parampara' Sarvaadaran'eeya Svami Satyaprakasha Jnana Thapasvi's unconditional love, dedication to serve and inspiring simplicity are always remembered. We, the family of Santhigiri Ayurveda Medical College, Palakkad feel the unseen driving force of Svami in our journey towards achieving the goals set by our Guru.

Mr'tyormaa amr'tamgamaya

Dr. G. Nagabhushanam
Chief Editor

A tribute to our President, Santhigiri Ashram

Sarvadhara neeya Swami Sathyaprakasa Njana thapaswi, the president of Santhigiri Ashram, merged with Guru Jyothi on 02.09.19 at 9:15 PM. He was 71. He had been admitted at Thiruvananthapuram KIMS Hospital on 22.08.2019 following respiratory complaints.

Swami was born in an orthodox Christian family at Koorppara in Kottayam, as the son of Sri. Thomas and Smt. Akkamma. He was one of the senior members of Guru Dharma Prakasha Sabha. After meeting Guru in 1976, he became a staunch follower. In 1984 he took sanyasam from Guru. He had played an important role in the development of Santhigiri Branch Ashrams in Kallar (Idukki) and Eranakulam before becoming the President of Santhigiri Ashram. Swami will be remembered forever for his simplicity and the complete dedication to the mission of Guru.





DEPARTMENT OF SVASTTAVR'TTA

Beating Asthma through lifestyle modulations- the Aayurvedic way

Dr. Deepty Nair,
Associate Professor and HOD,
Department of Svasttavr'tta

The Global Burden of Disease (GBD) study in 2016 estimated that there were 339.4 million people worldwide affected by asthma and health statistics reported that at least one in every ten asthma patients globally lives in India. Apart from the mortality and morbidity associated with bronchial asthma, the economic burden it levies on the nation is highly challenging. This includes not only direct cost spent on medical health care but also absenteeism from work and school which markedly affects the economic status of the country. The co-morbidities associated with this clinical condition is broadly categorized into two: immediate and remote. While the immediate co-morbidities range from rhinitis, rhinoconjunctivitis and sinusitis, the latter can be as grave as heart disease, stroke, osteoporosis and cancer. The disease can lead to serious respiratory complications including pneumonia, collapse of part or all of the lung, respiratory failure and status asthmaticus.

Classical symptoms of bronchial asthma are cough, wheezing, chest tightness and shortness of breath. The etiological factors of bronchial asthma are of two types viz. inducing factors which basically initiate the disease pathology and provoking factors which precipitate an episode in an already known patient. While the former includes genetic factors, allergy and viral infections, the latter known factors include exposure to allergens (including food), environment, occupation, recurrent infections especially involving the upper respiratory tract, exercise and various psychological factors.

The condition is treated using anti-inflammatory drugs and bronchodilators conventionally. Anti-inflammatory drugs are chiefly corticosteroids administered either in the form of metered dose inhalers or as pills or liquid medications. Bronchodilators may be short acting or long acting. However, this approach involves high costs and is generally associated with high drug reliance and other harmful side effects. For example, inhaled corticosteroids can induce local effects like oral candidiasis, dysphonia, reflex cough or bronchospasm and serious systemic effects like poor growth, decreased bone density, disseminated infection, easy bruising, cataracts and glaucoma, adrenal gland suppression etc.

CONTENTS

1. BEATING ASTHMA THROUGH LIFESTYLE MODULATIONS - THE AAYURVEDIC WAY - DR. DEEPTY NAIR
2. AN OVERVIEW ON PREVENTION OF PREDIABETES - DR. KIRAN K PRASAD
3. STUDENTS CORNER
4. MEDICAL BULLETIN
5. EVENTS

Bronchodilators are known to produce unfavorable effects ranging from nausea, vomiting, headache to serious issues like nervousness, restlessness, insomnia and tremor. Besides, these are merely curative approach and do not offer a preventive care. In this scenario, ayurveda can potentially contribute in both curative as well as preventive foci in a quite safer way. Disease prevention has three faces: Primary, secondary and tertiary and ayurveda can be effectively applied in all the three.

Primary prevention aims at preventing the inducing factors both before and after birth. Factors before birth are primarily the genetic predispositions. High risk parents should be guided appropriately with genetic counseling wherever applicable. Planned regimes of pregnant lady also can contribute a lot in preventing asthma in the offspring. Aayurveda classics have mentioned that if a garbhin'i consumes s'laismika aahaara the baby runs a high risk of developing s'laismika vikaara like s'vaasa roga¹. Further, mental stress and infections during pregnancy hold strong relation to asthma in the baby.

Recurrent respiratory infections show high incidence in children. These can lead to bronchial asthma if not properly addressed. Childhood age group or baalyam is vulnerable to this condition owing to²:

- Developing anatomical structures (Aparipakva dhaatu)
- Delicacy (Sukumaara)
- Psychologically weak (Akles'asaha)
- Immature immune system (Asampoorn'a bala)
- Kapha pradhaana

So, this age needs special care particularly in the following areas:

- Ensure adequate neonatal care to avoid infections.
- Promote breast feeding
- Nutritious diet
- Parental care



➤ Physical strength improvement (bala / immunity)

Breast feeding strengthens the immune system of the baby by maternal antibodies thereby lowers the incidence of respiratory illness and protects from allergies. Well balanced nutritious diet will support the development of immunity. Nutritional requirements must be identified and adequately met. Keeping the babies off the junk foods will ensure a satisfactory nutritional status. The dietetic principles of aayurveda should be followed to enhance appetite and digestion. Physical and psychological support from parents plays pivotal role in the child's growth and development. Physical strength can be developed by adequate physical exercise in various forms of recreations like games, swimming etc and also by the use of rasaayana drugs and formulations like cyavanapraas'am, kooshmaan'd'a rasaayanam etc. Maintaining a healthy physical environment is also an essential requisite. Care must be taken to avoid indoor pollutants like kitchen exhaust, parental smoking etc. Regular cleaning and disinfection of the house must be ensured. Dhooanam with drugs mentioned for air purification like guggulu, musta, us'eera, madhuka, haridra etc is beneficial. But a child allergic to smoke should not be exposed directly to the fumigation.

Secondary prevention takes into account both physical and mental factors which provokes an episode of asthma. Mental stress is closely associated with bronchial asthma. Promoting psycho analysis and extending relaxation techniques, meditation and counseling is found to control the diseases effectively.

It is found while considering the physical factors that 90% cases of asthma are attributed to atopic factors or allergens and only 10% are caused secondary to environmental and other factors. So, an effective approach will be to avoid the allergen but since it is practically impossible the focus should be on strengthening the body to combat the allergens. This can be achieved either medically, i.e., immunotherapy or by lifestyle modification in terms of daily and seasonal regimes.

Planning a lifestyle needs clear understanding of the disease pathogenesis. Asthma or svaasam involves the vitiation of vaata due to factors including environmental allergens, dietary reasons, trauma or iatrogenic causes which is precipitated in the praan'avaha srotas. Simultaneously, Kapha prakopaka aahaara initiates a metabolic disturbance in the mahaasrotas, i.e, aamaas'ayam and disturbs the praan'avaha, udakavaha and annavaha srotas. It produces svaasam in praan'avaha srotas³. The key points to remember are: the dosha primarily involved are

kapha and vaata and accordingly the lifestyle modifications should aim at preventing further praan'avaha srota vaigun'ya by vaata and kapha san`caya in aamaas'ayam.

Following Dinacarya is advisable based on the above understanding

Table 1: Details of Dinacarya advisable in Asthma (Svaasam)

CARYA	MODIFICATIONS
Dantadhaavana	Twice daily; kaphahara kashaaya rasa drugs like khadira, karan'ja, nyagrodha
Gan'd'oosha	Hot water
Abhyan~ga	Sarshapa taila
Moordha taila	Ushn'a, rooksha drugs like kr'shn'a jeeraka, tulasi, palan'd'u etc.
Vyaayaama	Breathing exercises, yoga, praan'aayaamam which help in expansion of chest thereby improving lung capacity, also enhance digestive power.
Snaana	Hot water with tulasi, karpooa

Breathing exercises: Hands in and out breathing, hands stretch breathing, head up and down breathing, ankle stretch breathing, s'as'aan~kaasana breathing, dog breathing and tiger breathing and chair breathing.

Yogaasana: Ardhat'icakraasana, paadahastasana, ardhacakraasana, trikon'aasana, parivr'tta trikon'aasana, vajraasana, s'as'aan~kaasana, suptavajraasana, pas'acimottanaasana, usht'raasana, gomukhaasana, makaraasana, bhujan~gaasana, s'alabhaasana, dhanuraasana and soorya namaskaram.

Praan'aayaamam: Kapaalabhaati, sectional breathing, nad'ees'uddhi praan'aayaamam, sooryaanuloma praan'aayaamam, ujjaayi praan'aayaamam and bhraamari praan'aayaamam

Conditioning: This is a technique which helps in desensitizing the mucous membrane of the respiratory tract to minimize hypersensitivity on exposure to allergens. This includes neti (jala and sootra) and dhauthi. These procedures also help in cleansing the respiratory tract.

Relation between aahaara and asthma is well elaborated in ayurveda classics and is quite evident clinically also. The disease originates in the aamaas'aaya as stated above, due to agnimandyam. The diet must be laghu, ushn'a, rooksha, deepana, kapha vaata hara and vishahara



Due importance must be given to the observance of aahaara vidhi as advocated in aayurveda i.e, the food should be ushn'a, snigdha, consumed only when previously eaten meal is fully digested and in appropriate maatra.

Table 2: List of conducive (pathya) food articles in Asthma

(Svaasam)

FOOD ITEM	PATHYAS
Cereals	yava, s'aali, shaasht'ika, godhooma
Pulses	mudga, kulatha
Vegetables	vaaartaaka, balaamoolaka, kaaravelaka, kooshmaan'd'a, s'igrū, onion, spinach, turnip, beetroot
Spices & Condiments	las'oonā, aardraka, haridra, ela, marica, kalasaka, jeeraka
Fruits	draaksha, bimbi, jambeera, matulun~ga, pappaya
Meat	jaan~gala maamsa
Milk & Milk products	aja ksheera, aja sarpi, takra, puraana'a ghr'ta

Hordenine and its methyl ether in yavam⁴ are effective bronchodilators. Active principles in jeeraka⁵ and kooshmaan'd'a⁶ prevent bronchospasm. Antiasthmatic, immunomodulatory, anti-inflammatory, expectorant and anti-histamine actions of las'oonā⁷, aardraka⁷, haridra⁸, s'igrū⁹, onion¹⁰, bimbi¹¹, pappaya¹¹ and kaala s'aaka¹² are studied and established. High concentrations of vit C and anti-oxidants in draaksha¹³, jambeera are established to be effective against asthma.

Practice of drinking only hot water processed with lajaalu (Mimosa pudica), khadira (Acacia catechu), jeeraka (Cuminum cimum), etc. must be advocated. Patients must be educated to avoid food articles which are guru, s'eeta, visht'ambhi, vidaahi .example matsya, kanda, sarshapa, maasha, aanoopamaamsa, dadhi. The practice of adhyas'ana and virudhhaahaara must be avoided.

Some common home recipes beneficial in Asthma:

- Tea with marica and aardraka
- Takra processed with turmeric and curry leaves
- Chutney- curry leaves, ginger, pepper, onion
- Steam cake -yava
- Milk with haridra coorn'a and honey

Seasonal regimes:

Atopic asthma shows high incidence in spring and summers while non-atopic in winter (82.3%) and monsoons (75.8%)¹⁴. Symptoms worsen in early morning and night. Ayurveda classics also describe

the exaggeration of s'vaasa roga during hemanta and varsha.

Hemanta carya including abhyan~ga with vaatahara taila followed by ushn'odaka snaana, practices like svedana, dhoomapaana and keeping the body covered with warm clothing must be advised. Agnideepana must be ensured during varsha r'tu, with panc`akola coorn'a and practice of dhoomapaana and dhoopanam be advised. R'tu-shodhanam must be administered especially in vasanta r'tu and s'arat r'tu. In vasantam- Either the acchasnehapana or sadya sneha using ghr'ta bharjita peya (3 days) - svedana with sarshapa taila + ushnodaka snaana (1 day) - vamaana with madana phala+ yashtimadhu kashaaya. In s'arat - sneha sveda followed by virecanam with trivr't coorn'a + Draaksha svarasa.

Practices of Sadvr'ttam ; Avoiding vegadhaaran'a especially kaasa, s'akr't, mootra, udgaara, chardi, and tr'shn'a. Ensure early to bed, early to rise. Avoid aatapa, rajas, tushaara, parushaanila. Maintain personal hygiene and environmental hygiene. Avoid tight dressing, visiting crowded places, negative emotions and maintain mental harmony.

Tertiary prevention aims at minimizing the co-morbidities and complications. Higher risk of oro-dental pathologies is reportedly associated with asthma due to decreased salivary protection against extrinsic and intrinsic acids^{15, 16}. This can be prevented by Dantadhaavana with khadira, karan`ja, nyagrodha etc, hot water gan'd'oosham, dhoomapaanam with guggulu, haridra, madhukam, yavam with ghee. Naimittika rasaayanam namely pippali and agastya rasaayana can effectively prevent the co-morbidities.

Conclusion

Bronchial asthma is a global concern. Preventive care can reduce economic burden and improve QOL. This can be achieved by modulating the lifestyles and routines. The ayurvedic lifestyle regimen involves less expenditure and can be practiced with easily available low-cost drugs without any side effects and requires no hospitalization.

References:

- R K Sharma, Bhagawan Dash (translators). Charaka Samhita (English). Sareera Sthanam. 2003 edition. Chaukhambha Sanskrit Series Office, Varanasi. Ch- 8, pg 474
- R K Sharma, Bhagawan Dash (translators). Charaka Samhita (English). Vimaana Sthanam. 2003 edition. Chaukhambha Sanskrit Series Office, Varanasi. Ch- 8, pg 277
- R K Sharma, Bhagawan Dash (translators). Charaka Samhita (English). Chikitsa Sthanam. 2003 edition. Chaukhambha Sanskrit



Series Office, Varanasi. Ch- 17, pg 121

- RP Rastogi, BN Mehrotra, Compendium of Indian Medicinal Plants, 1st Edition, Vol 2, CDRI Lucknow and PID New Delhi, 1970-1979; 5, 105, 218, 376, 676.
- <http://www.healasthma.com/>. Accessed on April 14 2009
- <http://www.sethayurvedics.com/ayurveda-herbs/index6.html> Accessed on Aug 10, 2009
- A. Massaki, F. Nobuyuki, K. Tomoko, S. Yuko, M. A. Reiko
- Babita Agrawal, Anita Mehta. Antiasthmatic activity of Moringa oleifera Lam: A clinical study. Indian Journal of Pharmacology. 40 (1): 28-31 (2008)
- Welton AF, Tobias LD, Fiedler-Nagy C, et al. Effect of flavonoids on arachidonic acid metabolism. Prog Clin Biol Res 1986; 213: 231-42.

- Rastogi RP & Mehrotra BN. Compendium of Indian Medicinal Plants. Publication and Information Directorate, New Delhi. 1993; 1: 133
- Sachin Parmar, Amit Gangwal and Navin Sheth, Journal of Current Pharmaceutical Research 2010; 2(1): 21-25
- Maffei Facino R, et al. Regeneration of Endogenous Antioxidants, Ascorbic Acid, Alpha Tocopherol, by the Oligomeric Procyanide Fraction of Vitis vinifera L: ESR Study. Boll Chim Farm. 1997; 136(4): 340-44
- H. Paramesh, Indian Journal of Pediatrics, vol. 69, April 2002
- Mehta A et al. Is bronchial asthma a risk factor for gingival diseases? A control study. PUBMED
- Manuel ST et al. Asthma and dental erosion. Kathmandu University Medical Journal (2008), Vol. 6, No. 3, Issue 23, 370-374

An overview on Prevention of Prediabetes

**Dr. Kiran K Prasad,
Asst. Professor
Dept of Svastavr'tta**

Prediabetes is a precursor stage to diabetes mellitus in which blood glucose level is higher than normal but below diabetic threshold. It is often an asymptomatic risk state that defines a high chance of developing diabetes and recognised as an important metabolic state, as individuals are at high risk of developing overt diabetes and its associated complication. The definitions and screening criteria for prediabetes differ between guidelines published by different organisations, resulting in estimations of prevalence that can vary widely from one another.¹

Despite these differences, estimates suggest that the number of individuals affected by prediabetes is increasing rapidly in all areas of the world. Prediabetes will progress to overt type 2 diabetes (T2DM) in approximately 25% of subjects within 3-5 years, and as many as 70% of individuals with prediabetes will develop overt diabetes within their lifetime².

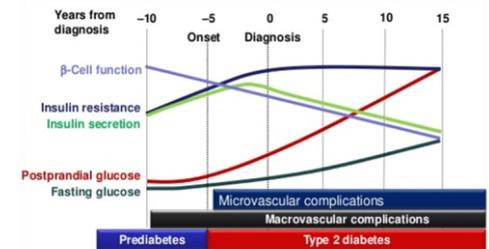
Nomenclature and Diagnostic criteria

WHO defines prediabetes as Intermediate hyperglycaemia, with Impaired Fasting Glucose (IFG) level of 6.1-6.9 mmol/L (110-125 mg/dL) or Impaired Glucose Tolerance level of 7.8-11.0 mmol/L (140-199 mg/dL). IGT is assessed using 2-hour plasma glucose during a 75 g oral glucose tolerance test (OGTT).

The American Diabetes Association (ADA) also recommends the assessment of glycated haemoglobin (HbA1c) level of 5.7-6.4% to screen for prediabetes³. However, the ADA recommendation is not recommended globally by WHO.

Pathogenesis

Genetic predisposition and life style factors lead to insulin resistance, which leads to compensatory beta cell hyperplasia and early beta cell failure resulting in Impaired Glucose Tolerance. Prior to onset of diabetes, the beta cell dysfunction, insulin resistance and vascular changes starts at the prediabetic stage



Aayurveda concept- Samprapti of Prameha

Prameha is a vyaadhi with s'leshma mootra medovaha dusht'i. Diabetes mellitus can be correlated to prameha and prediabetic stage can be considered as a stage occurring prior to the poorvaroopavastha characterised by a kapha prakopa, with no apparent



symptoms or symptoms which are difficult to elicit in practical sense.

Prevention modalities

- Screening of high risk group
- Recognition and Modification of Risk Factors
- Diagnosis and management of Prediabetes

High risk group identification and screening is the primary objective. It include people with physical inactivity, obesity, hypertension, history of CVD[premature atherosclerosis], high triglyceride, first degree relative with diabetes, women with PCOS, history of gestational diabetes, obstetric history of a baby weighing more than 4.5kg and ethnicity.

Intervening the modifiable risk factors like overweight, physical inactivity, smoking, alcohol helps in curbing prediabetes to a greater extend. Primordial prevention in prediabetes, focuses on prevention of emergence of risk factors which have not yet appeared. It emphasize on concepts like maintenance of normal body weight and adoption of healthy nutritional habits. Elimination of other less well defined factors like protein deficiency and food toxins may be considered in some populations⁴.

Prevention of prediabetes in contemporary era through Aayurvedic dietetics

Proper understanding of dietetic principle mentioned as Asht'aahaara vidhi vis'esha aayatana by Aacarya Caraka and its application in contemporary era marks a great deal in tackling prediabetes⁵.

1. Prakar'ti

It refers to the inherent attributes of diets and drugs which are pathya and apathya. Rooksha and laghu gun'a are pathya in prameha because of medo mootra kaphaapaha property. Tikta and kashaaya rasa predominant dravya are pathya. Owing to the kleda medo vasa majja vin'mootra pitta s'leshma upas'oshan'atva and lekhaana property, tikta rasa is beneficial. Aas'u kapha pitta nihantitvam, kleda s'oshitvam and lekhaana karma of kashaaya rasa makes it useful in prediabetes condition.

Besides kapha pitta s'amaka dravya are beneficial in preventing prameha at a prediabetic stage. Yava, kapittha, tiktas'aaka, aamalaki, tr'n'adhaanya, mudga, haridra, daaruharidra, khadira mentioned in prameha are laghu and rooksha in gun'a. Pathyaahaara also include, pat'ola, arisht'a, kaaravellaka, parpat'aka, vaas'a, tr'n'adhaanya, which are kapha pitta s'amaka in nature.

Excessive use of madhura, amla, lavan'a rasa in diet is apathya.

Excess usage of madhura rasa leads to kapha vardhana. Amla rasa atyupayoga leads to s'idhilatvam, kapha vilayanam and lavan'a rasa excess usage leads to kapha vishyandana and rakta pitta dusht'i. Diet predominant in snigdha, guru, picchila, s'eetala gun'a is apathya. Thus aahaaram like navadhaanya, sura, aanoopa maamsa, ikshu, gud'a, gorasam and pish't'aanna possessing these gun'a should be avoided for subduing prediabetes.

Consumption of food with medium and low glycemic index is advisable in prediabetes condition, avoiding high GI foods. Intake of diet rich in high dietary fibre is highly recommended in prediabetic condition. Dietary fibres are remnants of edible part of plant and analogous carbohydrates that are resistant to digestion and absorption in small intestine with complete or partial fermentation in large intestine. It Include polysaccharide, oligosaccharide, lignin and associated plant substances. Mostly complex carbohydrates like polysaccharides i.e., cellulose, hemicellulose, pectin, gums, mucilages form dietary fibre. Gums and pectin ingested with food are reported to reduce post prandial blood glucose. Fenugreek contains 40% gums which are most effective in reducing blood glucose and cholesterol compare to other gums. Daily intake of 40 gm of dietary fibre per 2000 kcal is desirable.

2. Karan'am

It refers to the processing of food articles like toya agni sannikarsha, s'ouca, manthana etc. Cooking practices like overcooking should be avoided to prevent nutrient loss. Eating raw salad without much agni sannikarsha is useful in prediabetes. Proper preparation or avoidance of cyanide containing food like cassava is useful. Using manthaka dadhi and reducing the abhishyandatva is a pathya samskaara for dadhi. Kaala or maturity attained by a dravya also has an importance in defending diseases, for eg: unripe jackfruit is found to be having more antidiabetic property than the ripe ones. Kaalaprakarsha or shelf life also leads to change in gun'a, puraana dhaanya is pathya whereas nava dhaanya is abhishyandi and not recommended in prameha.

3. Samyoga

The concept of pathyaahaara samyoga actually goes in coherence with the concept of balanced diet. snigdha, klinna, abhishyandi dravya samyoga and virudhaahaara should be avoided in a santarpan'ajanya vyaadhi like prameha.

4. Raas'i

It refers to the quantum of food intake. Maatra is agnibala apekshin'i and anapaayi parin'aamam. So avoid atimaatra asana. Glycemic load of food has to be considered in prediabetic conditions. GL of food is



a number that estimates how much the food will raise a person's blood glucose level after eating it. One unit of glycemic load approximates the effect of consuming one gram of glucose.

GL= GI * carbohydrate content measured in gm /100

5.Des'a

It depends on dravya utpatti, pracaara, des'asaatmyam. Diet should be focused on ushn'a rookshaadi gun'a for a person residing in aanoopa des'a who is prone to kapha prakopaka vyaadhi.

6.Kaala

It refers to aahaara kaala. It is advised that "Yaama madhye na bhoktavyam, yaama yugmam na langhayet". Over fasting and over eating can lead to santarpan'ajanya vyaadhi.

7.Upayogasamstha

Jeern'aahaara lakshan'a should be considered before intake of food. Also it is told as 'Naati vilampitam as'neeyaat' or eating very slow will results in 'na tr'ptim adhigacchati' and 'bahubhukte'. Majority of non-communicable diseases are occurring due to atisantarpan'a.

8.Upayoktr'

Ultimately diet is individualized and dietary patterns differ in a society. The concept of okasaatmya is also relevant in determining a diet plan. So considering the agni, bala, prakr'ti and using nutritional aspects for calculating calorie requirement, individual diet patterns can be suggested according to vaidya yukti.

Other dietetic principles

Glycemic index: The GI represents the total rise in a person's blood glucose level following consumption of carbohydrate-containing food. Increasing the use of low and medium GI diet, reducing high GI diet can scale down the incidence of diabetes.

DASH diet: Dietary Approach to Stop Hypertension plays an indirect role in prediabetes, as the metabolic syndromes are closely associated. So adopting lifestyles like reduction of salt intake not more than 5 gm per day and intake of potassium, calcium and magnesium rich food indirectly benefit in prediabetes to diabetic progression.

Yoga in prediabetes

Type 2 DM is characterized by peripheral insulin resistance. It goes without saying that the role of improper physical activity and stress in DM is highly associated. So main principle of Yoga is based on 2 concepts

- Focusing in yogaasana.
- Adopting modalities which relieves stress

Annamayakos'a: Diet modifications, s'idhileekaran'a vyaayaama, vamanadhauti, laghu s'ankhaprakshaalana kriya, nauli are beneficial

for prediabetic condition at annamayakos'a level. Apart from considering the stretching, compressing and twisting of abdominal muscles, in order to keep in check the insulin resistance, judicious combination of various supine, prone, sitting, standing asana like ardhakat'icakraasana, vakraasana, paadahastaasana, ushtraasana, dhanuraasana, pas'cimottanaasana, soorya namaskaara etc are beneficial clinically. Yogaasana are selected based on the condition of the patient and individualized protocol has to be formulated focussing whole body.

Praan'amayakos'a: Kapaalabhaati, bhastrika, sooryabhedana, naadisuddhi praan'aayaama are beneficial in prediabetes. Kapaala bhaati is mentioned in classics as the kaphadosha vis'oshan'a karma. Naadisuddhi praan'aayaama does the balancing effect in body.

Manomayakos'a: Dhaaran'a, dhyaana mentioned in ashtan~ga yoga helps in focussing our mind and pave way to release of stress level.

Vijnaanamayakos'a: Faulty lifestyle is mainly attributed to the ignorance, but in present days, rather than ignorance prajnaaparaadha plays the main role. Often wilful decisions play a decisive role in keeping a tight rein of proper diet and exercise.

Conclusion

Considering the systemic complications of diabetes like cardiovascular, renal, neurological, ocular and intercurrent illness, early intervention focusing on primary and primordial prevention is the key principle in controlling diabetes at the prediabetic stage. Proper aahaara, vihaara, sadvr'tta paalana, avoiding prajnaaparaadha, wise selection of aahaara based on gun'a, karma, doshas'amanatva and following dietetic principles in Aayurveda can force into a stage of svaasthya.

Reference

- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6507173/>
- Prediabetes: a high-risk state for diabetes development. Tabák AG, Herder C, Rathmann W, Brunner EJ, Kivimäki M, Lancet. 2012 Jun 16; 379(9833):2279-90.
- The epidemic of pre-diabetes: the medicine and the politics, Yudkin JS, Montori VM, BMJ. 2014 Jul 15; 349():g4485.
- K. Park, Parks Textbook of Preventive and Social Medicine, 2015 edition, Banarsidas Bhanot Publishers, Pg:340
- P. V. Sharma, Caraka Samhita (English), Vimanasthanam, 2011 edition, Chowkhambha Ayurveda Pratishtan, Varanasi, Ch-1, Pg:304
- K. V. Dilip Kumar, Clinical Yoga and Ayurveda, 2011 edition, Chowkhamba Sanskrit Pratishtan.



Students' Corner

Measles

Miss. Smitha
IInd year BAMS

Definition

It is an infectious viral disease causing fever and red rash, typically occurring in childhood.

Age

Mostly children between ages of 3-5 years, rare during first 6 months of life because of transferred passive immunity from mother.

Transmission

Highly infectious and spread by direct contact or droplet infection. Patient suffering from measles shed virus from respiratory tract during prodromal period and for 24-48hrs after the rash appears.

Immunity

Immune response is not fully competent in early infancy, intercurrent infection or malnutrition further reduce these responses increasing severity of these disease. Transplacental maternal IgG provides protection during the first 3-6 months of life.

Incubation period

8-10 days

Period of infectivity

From onset of prodromal period to 4 days after appearance rash.

Clinical features

Illness of infection - febrile catarrhal attack with fleeting rash in a few hours after exposure to measles.

Stages

·Prodromal stage

Usually 4 - 5 days. Fever-abrupt rise of temperature up to 40°C. Catarrh - coryza, conjunctivitis, photophobia and barking cough Koplik's spots (Erythema pathognomonic) - appears on 2nd day as minute pinpoint bluish white spots with slight reddish mottled areola around them on buccal mucosa usually opposite lower molars. They look like grains of salt. Laryngeal involvement - Hoarseness and laryngeal stridor. GI - Persistent vomiting and diarrhoea. Fleeting rashes - either urticarial or erythematous.

Exanthematous stage

Rash - on 5th day red macules appear first behind ear, along hair line and on posterior parts of cheeks & spreads rapidly in a few hours all

over the body.

Mucous membrane involvement - Include conjunctivitis, rhinitis, stomatitis, laryngitis & bronchitis. There may be gastroenteritis also.

Stage of defervescence

Temperature falls by rapid lysis in 24 - 48 hours. Rash fades from downwards in sequence as its appearance & leaves brown staining often followed by branny desquamation. At times the normal rash of measles instead of fading become deep purple and persists for a week or two.

Complications

- Pneumonia or broncho pneumonia
- Laryngotracheal bronchitis
- Herpes simplex gingivostomatitis
- Hepatitis
- Blindness
- Sub acute sclerosing pan encephalitis (SSPE) - occurs by about 3 - 12 years after infection with altered behaviour and personality.

Post measles stage

Result from powerful immunosuppressive effect which alters immunity & the tissue destructive effect of measles.

Clinical features

- Growth retardation and diarrhoea
- Gingivostomatitis
- Corneal ulcers mainly in malnourished children

Diagnosis

Diagnosis can be achieved by using antigen detection in the saliva (enzyme linked immuno sorbent assay), immunofluorescence for antigen in bronchoalveolar lavage specimen. Traditional paired serology and presence of IgG antibodies in the CSF is suspected in SSPE.

Sanskrit Alphabets with English Transliteration Key

अ	आ	इ	ई	उ	ऊ
a	aa	i	ee	u	oo
		ए	ऐ	ओ	औ
		e	ai	o	au
ऋ	ॠ	ऌ		ॡ	अः
r'	rr'	l'		m	h
क	ख	ग	घ	ङ	
ka	kha	ga	gha	n~	
च	छ	ज	झ	ञ	
ca	cha	ja	jha	n`a	
ट	ठ	ड	ढ	ण	
t'a	t'ha	d'a	d'ha	n'a	
त	थ	द	ध	न	
ta	tha	da	dha	na	
प	फ	ब	भ	म	
pa	pha	ba	bha	ma	
य	र	ल	व		
ya	ra	la	va		
श	ष	स	ह	क्ष	ज्ञ
s'a	sha	sa	ha	ksha	jna

Medical Bulletin

Tirur Betel leaf obtains GI tag

Tirur Vettila (betel leaf) produced in Tirur and nearby areas of Malappuram district, Kerala has obtained GI (Geographical Indication) tag. It is unique for its significantly high content of total



chlorophyll and protein in fresh leaves. Eugenol is the major essential oil in Tirur betel leaf contributing to its pungency. Its pungency, antioxidant capacity and shelf period is more compared to other betel leaves adding to its medicinal properties.

It is a joint initiative taken by the IPR cell of the Kerala Agricultural University in association with the State Department of Agriculture Development and Farmers' Welfare and Tirur Vettala farmers that has reached its final destination. About 60% of Tirur Vettala is transported to Delhi, Mumbai, Jaipur and Itarsi by rail and from there it is also marketed to Pakistan, Afghanistan and Bangladesh. It is expected that GI Registration will enhance the demand and marketability of this unique betel leaf.

The other products received the GI tag before with the initiative of the IPR cell of the KAU are Kaipad rice, Pokkali rice, Wayanad Jeerakasala rice, Wayanad Gandhakasala rice, Vazhakulam pineapple, Marayur jaggery, Central Travancore jaggery and Chengalikodan nendran banana. Efforts are on to get the tag for Kuttiattoor Mango. The IPR Cell of Kerala Agricultural University has received National IP Award, 2019 of Government of India its efforts in the facilitation of GI Registration.

Events



Medical camp, Kottappuram

A Medical Camp was conducted at Kottappuram (Near Valayode Bhagavathy Temple) on 4th August 2019 in co-ordination with Arumughan Trust and Seva Bharathy. The camp was led by Dr. Rashin Chandrasekaran, Dr. Manjusha B, Dr. Ponnamma M P.



World Breast Feeding Week

In connection with World Breast Feeding Week a batch of 11 students participated in Flash Mob conducted at Kallingal and Althara Junction on 6th August 2019 in association with Kodumbu Gramapanchayath. Dr. Amrutha and Dr. Veena P Reghunath lead the team



Medical Camp, Tiruppur

Medical Camp was conducted at Panirendar Kalyanamandapam, Tiruppur, Tamil Nadu on 11th August 2019 in coordination with The Lions club International, Tiruppur chapter. A team of doctors led by Dr. Janani Remyaprabha Njana Thapaswini, Dr. Vivek Vaidyanathan, Dr. Sasmitha P, and Dr. M P Ponnamma along with House Surgeons and paramedical staff. The camp was coordinated by Sri. Muralidharan karat (Convenor Administration) & Mr. Saravanan (Marketing Executive).



Viswa Samskritha Divas

A program was conducted on 20th August 2019 as part of "VISWASAMSKRITHA DIVAS" Celebrations at College Auditorium. The Chief Guest for the event was Sri. Mohan an Master. Dr. Swaminathan, Retd Professor addressed the gathering of staff and students. Sri. Mohanan master was honoured during the function in recognition to his efforts in spreading Spoken Sankrit all over the state by conducting shibirams.



SAMC Principal, Dr. G. Nagabhushanam inaugurated World Samskarika Day celebrations at Moyans Higher Secondary School, Palakkad on 22nd August 2019.

Ayurwhiz Quiz competition

Himalaya Drug Company conducted Ayurwhiz a national level Quiz contest preliminary round in College Auditorium. Final year students & House Surgeons participated in this event. The event co-ordinator was Dr. Uma Haimavathy (Associate Professor, Department of Kayachikitsa)



Phyto nutraceuticals and their application in lifestyle disorders - Seminar

A seminar on Phyto nutraceuticals and their application in lifestyle disorders was conducted by Dr. Sarang Bani, a senior scientist from SAMI Direct Marketing India Pvt Ltd: at College Auditorium on 27th August 2019. All the doctors and House Surgeons participated in the seminar.





Independence Day Celebration

Principal Dr. G Nagabhooshanam hoisted the national flag and gave the ceremonial salutation with the singing of National anthem at 8 AM on 15th August 2019 in the presence of teaching and Non teaching staffs, and students. An Independence day speech reminding the sacrifice of our great freedom fighters was delivered by Principal, followed by speeches by AO, NSS coordinators and Students Union representatives..

SACTA kudumba sangamam

Santhigiri Aayurveda College Teachers Association organized a family meet on August 7th 2019 at Hotel Top in Town, Palakkad. The inauguration was presided by Dr. G. Nagabhooshanam followed by cultural programmes and games.



Medical camp - Sulthanpet

A Medical Camp was conducted near BPCL-Petrol station, Sulthanpet, Palakkad on 29th August 2019. A team of doctors led by Dr. Athira Asokan and house surgeons participated.

Medical camp - Jaiva Kalavara

A Medical Camp was conducted in association with OISCA International Palakkad chapter at Jaiva Kalavara, Kunnathurmedu, Palakkad on 28th August 2019. A team of doctors led by Dr. M P Ponnamma, Dr. Janani Remyaprabha Jnana Thapaswini, Dr. Sasmitha P & House Surgeons participated.



3rd Floor SAMCH Inauguration

The renovated third floor of the SAMCH was inaugurated by Dr. Janani Remyaprabha Jnana Thapaswini and Dr. G Nagabhooshanam on 14th August 2019.



Academic visit to Medicinal Plants Conservation Park & AVP



Second year students visited The Medicinal Plants Conservation Park, Kanjikode & The Arya Vaidya Pharmacy Unit at Kanjikode, Palakkad on 27th August 2019 as part of the curriculum activities. Dr. Sneha MS, Dr. Arya, Dr. Sumam, Dr Arun Prasad accompanied the team of students.



Congratulations

			
Dr. Athulya.N.B 11th Batch All India Rank:14	Dr. Haripriya.S 8th Batch All India Rank:43	Dr. Deepa Pradeep 9th Batch All India Rank:133	
			
Dr. Reshma Rajeevan 11th Batch All India Rank:150	Dr. Ramyasree.K 9th Batch All India Rank:158	Dr. Swetha.E.J 10th Batch All India Rank:162	Dr. Athulya.M.V 9th Batch All India Rank:170

AIAPGET Rank Holders

EDITORIAL BOARD

- | | |
|-----------------------|--|
| Chief Editor - | Dr. G. Nagabhooshanam
Principal |
| Managing Editor- | Dr. Arathi P S |
| Editor - In- charge - | Dr. Vivek Vaidyanathan |
| Editor -Members - | Dr. Syam Chandran C
Dr. Kiran K Prasad
Dr. Amritha M R |
| Admin. Executive- | Mr. Suresh P V |
| Design & Layout- | Dr. Vivek Vaidyanathan |

Our Address :-

Santhigiri Ayurveda Medical College
Olasseri P.O, Kodumba (via)
Palakkad, -678 551
Kerala, India
Ph: +91 491 2574574
www.samc.santhigiriashram.org
www.santhigirionline.com

Disclaimer : Views and opinions expressed in articles of this Newsletter are entirely of the writers and authors.

For Private online circulation only

For Suggestions and feedback, mail us to: - samc@santhigiriashram.org