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# विश्व आयुर्वेद परिषद् पत्रिका

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शिशिर ऋतु

# परिषद गीत

सभी सुखी हों सभी निरामय, हम सेवा संकल्प न भूलें।  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें।

राज्य स्वर्ग की नहीं कामना, नहीं मोक्ष की चाह हमें है,  
दुःख से पीड़ित आरत, आहत, बस इनकी परवाह हमें है।  
सबल राष्ट्र हो, स्वस्थ जगत हो, स्नेहामृत का सार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥

माना व्याधि अगाध है, इससे बचना नहीं सरल है,  
पहला सुख है निरोगी काया, पाना सब की चाह प्रबल है।  
कठिन चुनौती मार्ग कंटकित, साहस धैर्य अपार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥

करुणा, दया, मैत्री, शुचिता, हृदय प्यार झंकार भरा हो,  
कार्य कुशलता, ज्ञान, विशदता, पुलकित सुरभित वसुन्धरा हो।  
सृजन-शक्ति, सद्भाव-समन्वित, धरती का श्रृंगार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥

आधि व्याधि का घर जो तन है, परमेश्वर का पावन मन्दिर,  
भरे कल्पना भाव अनगिनत, आयुर्वेद ज्ञान अति सुन्दर।  
कीर्ति कौमुदी की गरिमा में, सेवा, श्रम, उपकार न भूलें,  
स्वास्थ्य साधना के हम साधक, शील विनय व्यवहार न भूलें॥



# विश्व आयुर्वेद परिषद् पत्रिका

## Journal of Vishwa Ayurved Parishad

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<b>पत्र व्यवहार एवं सम्पादकीय कार्यालय</b>	<p>विश्व आयुर्वेद परिषद् पत्रिका 1/231, विरामखण्ड, गोमतीनगर, लखनऊ-226010 (उ०प्र०) चल दूरभाष- 9415003111 email : vapjournal@rediffmail.com dwivedikk@rediffmail.com</p>	



आज इतने विकसित होने के बाद भी हम विश्व स्वास्थ्य संगठन के नारे सबके लिए स्वास्थ्य की अवधारणा की पूर्ति नहीं कर पाये हैं। भारत जैसे विशाल देश की स्वास्थ्य समस्यायें भी विकसित राष्ट्रों की भांति एक गम्भीर चुनौतियों के रूप में उभरी हैं। सबके लिए स्वास्थ्य व्यवस्था दे पाना दिवा-स्वप्न की तरह लगता है। एक तरफ तो संक्रमण जन्य व्याधियाँ हैं, तो दूसरी तरफ गैर संक्रमण जन्य। अभी भी कई राज्यों में इन्सेफलाइटिस, मेनीनजाईटीस, पोलियो, फ्लू आदि अपनी भयावहता दिखाते रहते हैं, तो दूसरी तरफ कुपोषण, चयापचय जन्य, मानसज, जीवन शैली जन्य व्याधियाँ विकसित हो रही हैं। मधुमेह तनाव, अवसाद, उच्चरक्त चाप, मेदो रोग, थाइरायड जन्य, व्याधियों की निरन्तर बढ़ती व्यापकता ने स्वास्थ्य नीति नियामको की चिन्ता बढ़ा दी है। केवल सरकारी स्तर पर सबको स्वास्थ्य सुविधायें दे पाना सम्भव नहीं है। सबको स्वास्थ्य शिक्षा की जानकारी देना एक विकल्प है। जिस पर हमें गम्भीरता से विचार करना चाहिए। लगभग पचास प्रतिशत व्याधियाँ व्यक्ति के स्वयं की अज्ञानता से हैं। क्या हम इस तरफ विचार करेंगे? 'स्वस्थस्य स्वास्थ्य रक्षणम्' इस सूत्र को ध्यान में रखकर यदि चिन्तन करें तो स्पष्ट है कि आयुर्वेद प्रथमतया व्याधि चिकित्सा की बात नहीं करता।

समग्र स्वास्थ्य की कल्पना केवल चिकित्सा से नहीं अपितु उसके अनेक पक्षों की जानकारी से ही सम्भव है। प्रातः उठने से लेकर सामाजिक स्वास्थ्य की चर्चा केवल आयुर्वेद की मौलिक चिन्तन का परिणाम है। आचार रसायन, दिनचर्या, ऋतुचर्या, समाजचर्या आदि विषय नई पीढ़ी को समझाने की आवश्यकता है। विकसित देशों में भी स्वास्थ्य खर्च आम आदमी के वश का नहीं रह गया है। आने वाले कल के भयावह स्वरूप की चिन्ता आज से शुरू करें, तभी आने वाले दशक में हम इसका सामना कर पायेंगे। क्या मानवाधिकार एवं अन्य संगठन की बातें करने वाले मानव स्वास्थ्याधिकार की बात करेंगे? यदि हाँ तभी इस ज्वलंत समस्या का समाधान सम्भव है। आयुर्वेद को चिकित्सा की मुख्य धारा में जहाँ तक होना चाहिये, वहाँ तक अभी हम नहीं पहुँचे हैं और यह केवल चिकित्सक वर्ग से सम्भव नहीं है। इसके लिए हमें शिक्षक, विद्यार्थी, नीतिनिर्धारक, समाज के सभी वर्गों एवं नागरिकों की सहभागिता सुनिश्चित करने के उपाय होने चाहिए। इस कार्य को आन्दोलन के रूप में लिया जाना चाहिए। केवल आयुर्वेद की अगाधता के वर्णन करने से नहीं किन्तु व्यावहारिक रूप से समाज में इसकी उपयोगिता सिद्ध करने से यह सम्भव हो पायेगा। इसके लिए प्रत्येक मंच से आप अपनी बातें कहें, समझायें, जनता को जागरूक करें। संगोष्ठी, कार्यशाला आदि जो विद्यालयों, विश्वविद्यालयों में होते हैं, उसे समाज में करने के प्रयास किये जायें, जिससे उसकी उपयोगिता आम नागरिक तक पहुँच सकें। इसके पश्चात ही हम समग्र स्वास्थ्य की अवधारणा को आत्मसात करने एवं उसके विविध पक्षों को समाज में लाने का प्रयास सार्थक कर पायेंगे।

हमें विश्वास है, इन सार्थक प्रयास के पश्चात हम ऐसा वातावरण बनाने में सक्षम होंगे, जो भारतीय स्वास्थ्य चिन्तन को एक नयी दिशा देगा और हम आगामी दशक में अपने देश को स्वस्थ भारत बना सकने में सफल होंगे।

डॉ० कमलेश कुमार द्विवेदी  
सम्पादक



## SAMPRAPTIVIGHATANA OF SHVASA ROGA BY THE PROPERTIES OF VASA (*Adhatoda vasica* Linn.)

• \*Abhishek Gupta, \*\*Prof.V K Joshi

bronchodilator properties .

**Keywords** - *Vasa*, *Shvasa*, *Pranavaha srotasa*, *Vasicine*, *vasicinone* etc.

**INTRODUCTION:-** *Vasa* is known by different names in different regional languages as *Aduss*, *Amsa* in Hindi, *Sannaadusage* in Kannada, *Cheruadalotakam*, *Chittatalotakam* in Malayalam, *Chittatalodakam* in Tamil, *Addasaramu* in Telugu and *Malabar nut* in English.

In *Charaka Samhita* (1000BCE - 4<sup>th</sup>Cent.) and in *Sushruta Samhita* (1000BCE - 5<sup>th</sup>Cent.) This small evergreen shrub has been used in traditional Indian medicine since 1000BCE. On comprehensive review of original scriptures of Ayurveda different synonyms like *Atrusaka*, *Bhisaghmata*, *Singhapaéni*, *Vrsa*<sup>6-8</sup>, *Vajidanta*, *Sighasya*<sup>6-7</sup>, *Sighamukhi*<sup>7-8</sup>, *Sighika* are seen.<sup>6,8</sup> These synonyms are based on its morphology and its importance in treating diseases.

In *Samhita granthas* it is indicated as *Rasayana*<sup>9</sup> therapy, *Jvara*<sup>10-12</sup>, *Raktapitta*<sup>13-15</sup>, *Kustha*<sup>16-19</sup>, *Pandu and Kamala*<sup>20</sup>, *Shvasa*<sup>21-22</sup>, *Rajyaksha*<sup>23</sup>, etc. Apart from the synonyms appear in *nighantu* its therapeutic indication is also seen, which are as follows : *Shvasa*, *Kasa*, *Jvara*, *Chhardi*, *Meha*, *Kushtha*, *Rajyaksha*<sup>24-27</sup>. *Vasa* has been indicated in *Svasa roga* by different scholars. *Anticholinestrace*<sup>28</sup>, *Antitussive*<sup>29</sup>, *Antitubercular*<sup>30</sup>, *Antiulcer*<sup>31</sup>, *Hypoglycaemic*<sup>32-33</sup>, *Woundhealing*<sup>34</sup>,

### Abstract

*Vasa* (*Adhatoda vasica* Linn.) is the wellknown drug of ancient Ayurvedic classics, it is found in lower Himalayan region up to 1300 meter height from sea level and found in India, Srilanka, Burma, Malaysia. It is used in many diseases like *Shvasa*, *Kasa*, *Raktapitta*, *Kustha*, *Kamla* and *Jvara* since ancient time. Many modern researches also prove its Antitussive, Bronchodilator, Antidiabetic, Wound healing and Antiinflammatory properties. *Shvasa roga* is a disease of *Pranavaha srotasa* which occurs due to obstruction (*Sang*) caused by *Vata* and *Kapha*. *Vasa* has *Tikta* and *Kashaya rasa*, *Laghu* and *Ruksha guna* and *Katu vipaka*. *Tikta rasa* has property of *Chedana* (scarification) and *Dipana* (stimulate the digestive fire). In the *Samprapti* (Pathogenesis) of *Shvasa roga*, we can see that due to *kapha prakopaka hetu* there is *Agnimandya* (Reduction of digestive fire) and *ama* (Undigested food) formation, so by the property.... *Chedana* (scarification) and ... *Dipana* (stimulate the digestive fire)..... it aggravate *agni* (Digestive fire) and decrease *ama* (Undigested food) formation, and by the property.....*pittaslesmaupasosano* .....it also decrease *kapha*. Thus the properties of *Vasa* clear the *sanga* (obstruction) of *Pranavaha Srotasa* (Respiratory channel) caused by *vata* and *kapha*. Its leaf having high contents of *Vasicine* and *Vasicinone*, which is produced as antitussive and

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Hepatoprotective<sup>35</sup>, Antibacterial<sup>36</sup>, Immunomodulatory<sup>37</sup>, Antiinflammatory<sup>38</sup>, HIV-Protease inhibitor<sup>39</sup> action has been reported by different scholars.

**Properties of Vasa** - It is known for its *Tikta and Kashaya rasa, Ruksha and Laghu guna, Sheeta* in *Virya* and *Katu* in *Vipaka*.

#### **Definition of Shvasa Roga:-**

According to Sushruta, when *Pranavayu* combining with *kapha*, leaves off its normalcy, begins to move in the upward direction, giving rise to more of respiration, this is called *Shvasa*<sup>42</sup>.

#### **Etiology of Svasa Roga:-**

According to Charaka due to exposure to dust, smoke and wind, residing in a cold place and use of cold water, exercise, sexual intercourse and long walk beyond one's capacity, habitual intake of ununctuous food, intake of food either deficient or excessive in quantity and before or long after the meal time, constipation associated with *Anaha* (flattulence), dryness of the body, excessive fasting, Use of mutually contradictory ingredients, intake of the meat of aquatic and marshy animals and birds, intake of curd and unboiled milk cause *Shvasa Roga*. According to Sushruta due to smoking, physical exercise, eating during indigestion, affliction with *ama dosa*, taking items which produce burning such as *maricha*, *sarshapa* and wine, taking *abhiḍyandini* (Which block the channels) such as fish, black gram, taking rough and slimy food, cold drinks produce **Shvasa Roga**. Ayurveda, the general etiology of *Svasa roga* is that all things, materials, and conditions that could help increase *vata dosa* and *kapha dosha* are causally

responsible for *Svasa*. This develops from an increase in *kasa* (cough), *ama* (undigested materials), *atisara* (diarrhea), *vamathu* (vomiting), *visa* (poison), *pandu* (anemia), and *jvara* (fever); coming into contact with air containing dust, irritant gases, pollens, or smoke; injuring vital spots; using very cold water; and residing in cold and damp places. Excessive use of dry food and astringent food and irregular dietary habits may also trigger an attack. In addition, constipation, excessive fasting, excessive use of cold water, excessive sexual indulgence in adults, exposure to extremes of temperature, anxieties, grief, disturbance of peace of mind, and debility may all precipitate an attack. Cough and coryza have also been implicated as etiologic agents. The habitual use of lablab-bean, black gram, *til* preparations, irritant spicy food, and *kapha* producing diet may also be involved in development of the disease<sup>43-46</sup>.

#### **Purva Rupa (Premonitory Symptom) Of Shvasa Roga:-**

*Hritapida* (Pain in the region of the heart), *Parshvashulama* (a Pain in the flanks), *Bhaktadvasha* (Aversion of food), *Vairasyamavadnasya* (Bad taste in the mouth), *Arati* (Restlessness), *Pranasyavilomatvama* (Reversion of the respiratory function), *Anaha* (Flatulence)<sup>47,48</sup>.

#### **Samprapti (Pathogenesis) Of Shvasa Roga:-**

The pathogenesis of *Svasa roga*, according to Ayurvedic texts, appears to arise from an abnormal interaction between *vata* and *kapha*. The initial step is the increase in *vata*. Because of the obstruction to normal movements of *vata* by



*kapha, vata* begins to move in all direction as poison, as describe by the Acharya Caraka in *samprapti* of *Svasa roga* by the term *विष्वग्भ्रजति* (*Visavagbrajati*). This disturbs *Prana* (Channels of respiration), *Anna* (Channel of food), and *Udaka* (water) located in the chest, and produces *Svasa* (dyspnea) originating from the *Amasaya* (Stomach). This suggests that the root cause of *Svasa roga* is related to the digestive tract<sup>49-51</sup>.

#### **Samprapti Ghataka (Components) Of Svasa Roga:-**

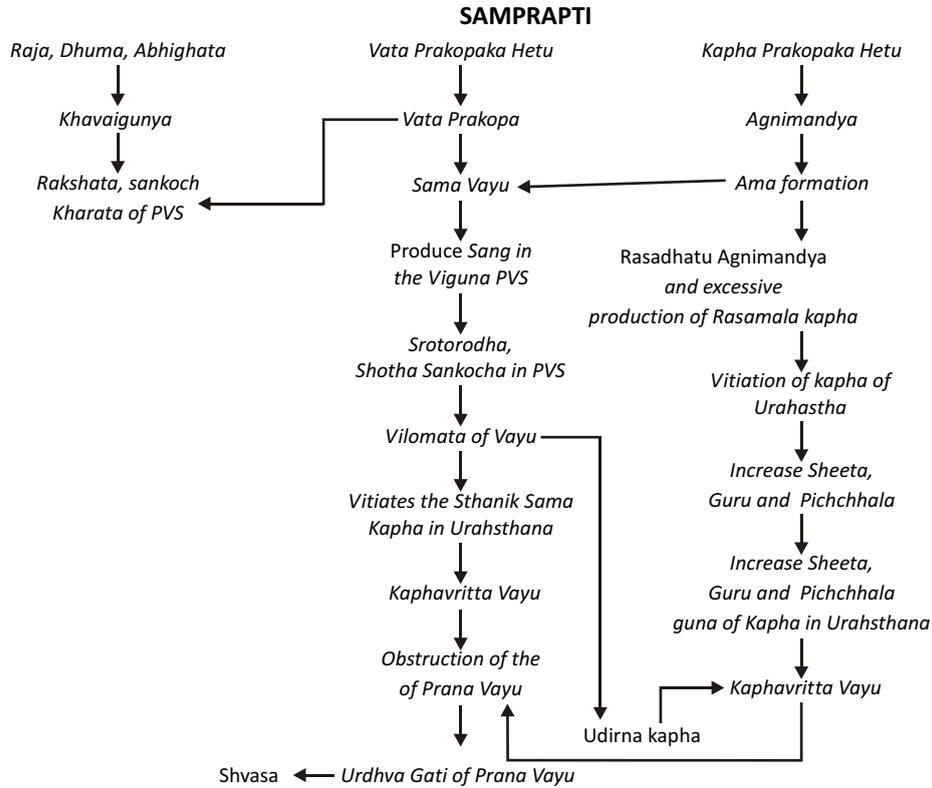
In the *Samprapti Ghataka* of *Svasa roga*, *Dosas* are *Vayu (Prana Vayu)*, *Kapha (Kledaka and Avalambaka Kapha)*, *Dusya* are *Rasa and Udaka*, *Agni* (Digestive Fire) is *Mandagni (Decreased)*,

*Srotasa* (Channels) are *Pranavaha* (Respratory), *Annavaaha* (Alimentric) and *Udakavaaha*, *Udhavavasthana* (Place of origin of disease) is *Pittasthana* (*Amashaya*), *Vyaktasthana* (Place of presentation of disease) are *Uraha* (Thoracic region) and *Phuphphusa* (Lung area), *Srotodusti* (Type of deformity in body channels) are *Sanga* (Obstruction) and *Vimargagamana*, *Rogamarga* is *Abhyantara*.

#### **Discussion on Physical properties of Vasa and Sampraptivighatana of Svasa roga:-**

*Vasa* has *Tikta* (Bitter) and *Kasaya* (Astringent) *rasa*, *Ruksha* and *Laghu guna*, *Seeta virya*, *Katu* (Pungent) *vipaka*, *Kaphapittasamaka dosakarma*<sup>52</sup>.

When Charaka describe the properties of *Tikta*





rasa, he says तिक्तो रसः.....दीपनः पाचनः..... पित्तश्लेष्मोपशोषणो.....च.सूत्र 26/43(5) means *tikta rasa* has property to promote digestive fire (दीपनः) and digestion (पाचनः) and also has property to deplet the *pitta* and *kapha*<sup>53</sup>. Acarya Susruta also describe the property of *Tikta rasa* as तिक्तश्छेदनो रोचनो दीपनः....सु.सूत्र 42/10(5) means *tikta rasa* has property of scarification (छेदनो) and also stimulate the digestive fire (दीपनः) 54 By seeing graphical representation of *samprapti* (Pathogenesis) of *Svasa roga*, we can see that due to *kapha prakopaka hetu* there is *agnimandya* (Decreased digestive fire) and *ama* (Undigested food) formation, so by the property.....दीपनः पाचनः....it **aggragate agni (Digestive fire) and decrease ama (Undigested food) formation, and by the property .** ....पित्तश्लेष्मोपशोषणो..... it also decrease kapha.

*Tikta* (Bitter) rasa also have the *Chedan* (Scarification) property, when Acarya Sarangadhara explaining छेदन property he says श्लिष्टान् कफादिकान् दोषानुन्मूलयति यद् बलात् ।। शा. पूर्वखण्ड 4/9 means drug which scratchout the adherent kapha and other wastes from places are छेदन drugs<sup>55</sup>. As see the graph we see that the *vigunatva* in *pranavaha srotasa* takes place due to accumulation of *ama* with *vayu* and *kharatva* (Roughness) in *pranavaha srotasa* takes place due to accumulation of *raja* and *dhuma*. So by the *chedan* property of *Vasa* it clears the *pranavaha srotas*.

*Vasa* has *laghu guna*, when Acarya Ālhana gives commentary on *laghu guna* describing by Susruta, he says लघुस्तद्विपरीत इति असादानुलेपादिकृत् कफहरश्चेत्यर्थः सु.सूत्र 46/519 (डल्हण)<sup>56</sup>, *laghu guna*

describing by Acarya Sarangadhara is लघु पथ्य परं प्रोक्तं कफध्नं शीघ्रपाकि च ।। शा. पूर्वखण्ड 2/2757, so both auther describing the *kaphahar* property of *Vasa* that will help in *sampraptivighatana* of *Svasa roga*.

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(पृष्ठ 32 का शेष)

all suffer some threat of damage or disease to the liver. We can help to prevent damage of liver by reducing the consumption of alcohol, maintain good hygiene and to use the herbs mentioned above.

**Conclusion:-** From the work cited in the article it can be concluded that herbs have great role in the treatment of liver diseases like hepatitis, jaundice etc. Ayurvedic drugs have promising profile as far as drug development from natural source is concerned. One can expect herbal drugs to acts as lead compound for development of economical, effective and non toxic hepatoprotective agents.

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# FUNDAMENTALS OF AYURVEDA IN PRECLUDING THE DISEASES OF CIVILIZATION

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## ABSTRACT:

“Civilization” is the stage of human social development, where families are very prone to influenced by the practices of others, often share traditions and culture such as language, art, architect, festivals, modern lifestyle etc. Such adaptation to modern lifestyle even made to fall victim to lifestyle disorder which is also known as 'Disease of civilization". In such scenario, people of present era attracted more by modern science because they justified themselves in eliminating the menace of disability, impairment and disease from most of awful infectious diseases through making an advancement in administration of vaccination, antibiotics, adaptation of sanitation methods but challenge is posed over and over by ailments related with civilization, which is a matter of primary concern. Modified civilization strikes adversely over human wellness are which are potentially preventable. Concept of lifestyle differs on the basis of social, culture and geographical background. By future prediction Ayurveda *an ancient science* urge an ideal lifestyle which is widely accepted. Adopting these fundamentals made it possible to tackle lifestyle disorder on several fronts. Various aspects of lifestyle are dealt

under the headings of Swasthavritta. Human, being a rational animal always demands an evident based concept before it is accepted universally so also is the concept of lifestyle in *Ayurveda*. Here an attempt is made to explore the concepts of Lifestyle in Ayurveda with possible correlates.

**Keywords:** Precluding, Disease of civilization, Lifestyle, Swasthavritta.

## INTRODUCTION

The term “lifestyle” is rather a diffuse concept often used to denote the way people live, reflecting a whole range of social values, attitude and activities. It is composed of cultural and behavioral patterns and lifelong personal habits that have developed through processes of socialization. Lifestyles are learnt through social interactions. Dramatic shifts in the way humans live their lives, often due to advancements in a society or its scientific progress leads to altered lifestyle. Altered lifestyle has many implications on human health and may lead to many disorders including, Acid peptic disorders, Obesity, Diabetes mellitus, cardio vascular disease, hypertension etc. These diseases are often termed as '**Diseases of civilization**'. Lifestyle diseases vary from other ailments because they are potentially preventable by adopting

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changes in diet, lifestyle, and environment.

*Ayurveda* being a ancient holistic science emphasizes the importance of a healthy lifestyle which has been broadly dealt under the headings of Swasthavritta, in precluding diseases which is evident from its objective i.e., “*Swasthasya Swasthya Rakshanam*”. *Swasthavritta* as an ideal lifestyle that includes fundamentals of *Dinacharya*, *Ritucharya*, *Sadvritta* which are tools for prevention of disease and promotion of positive health. Knowing these concepts allows us to understanding the tone of once own body and serious acceptance of these measures allows us to maintaining homeostasis of the body physiology which ultimately ends up in healthy lifestyle.

Because of urbanization and industrialization human started adapting to the changing lifestyle in term of diet and regimen which pose the burden over the medical fraternity in the form of lifestyle diseases. The need of the hour is conversion of defective sedentary lifestyle to an ideal, healthy and disease free lifestyle.

#### **Swasthavritta Paripalana:**

*Swasthavritta is a part and parcel of Ayurveda* which incorporates the *Dinacharya*, *Ritucharya* and *Sadvritta*, which helps an individual to maintain a healthy ideal lifestyle.

Brahmamuhurta-jagarana (Wake-up just before sun-rise), Mala visarjana (Defecation and urination) Achamana (Washing of hands), Dantadhavana (Tooth-brushing), Jihva nirlekhana (Tongue-cleaning), Gandusha-dharana (Retaining oil in mouth) Sugandhita dravya dharana and Tambula sevana, Anjana (Application of collyrium), Nasya (Oily nasal drops), Dhmapana (Inhalation of

medicated smoke), Vyayama (Physical exercise), Kshaura-karma (Regular cutting of hair, nail, etc), Abhayanga (Body massage with oil), Snana (Body cleansing).

#### ● **Brahmi muhurtha:**

Brahmi Muhurtha is the auspicious time to gain knowledge, what the etymology communicates, but it is more than that, how? For this, there is a need of subtle citation of *Ayurveda* excellence. It is the transition period from dim light to bright light which is named as Day Twilight. Ancient documents refer it as *Arunodaya Kala* (Dim light with visible sky) which occurs before *Suryodaya Kala* (Sun rise bright light).

*Acharya Vagbhata* delivers that single day and night is considered as one *Aahoratri*, comprise of 8 *Yama* (or) *Prahara*, which is divide equally in to day and night.

Here one *Yama* compare to 3<sup>3/4</sup> of *Muhurta* and one *Muhurta* is 48min (3X48=180min) Like this totally one day consist of 30 *Muhurta*, 15 *Muhurta* for day and 15 *Muhurta* for night respectively. By the support of this knowledge, now we specify the time of *Brahma Muhurta*.

**Time specification:** *Pashchima Yama of Ratri* ( Last 3 hours of night)<sup>a,b,c</sup>. *Jyothisha Shastra* considers 26<sup>th</sup> muhurtha i.e 3am as the *Brahma muhurta*. *In broader sense 3:00 am 6:00 am. To specify still more we having good reference,*  
*Ratreschaturdasho muhurto brahma muhurta | (arunadatta)*  
*Ratre pashchime yaame muhurtho yastriyaka || (vachaspati)*

Fourteenth *Muhurta* of *Ratri* that is 4:24am to 5:12am if we consider 6am as the time of sunrise.<sup>2</sup>



The exact time of *Brahmi muhurta* varies from region to region as the time of sunrise is not uniform throughout the world. It is approximately two *muhurtas* i.e.96 minutes (almost 1.5hrs) before sunrise (starting of 14<sup>th</sup> *muhurta*) at that region.

Importance of *Brahmi Muhurta*: it is considered as *Panchamrutha Vela* (Time of five essences) because of *Vipul Vayu*, *Vipul Jala*, *Vipul Aakasha*, *Vipul Desha*, *Viphula Kala*.

*Vipul Vayu* denotes the pure form of air which is essential for the proper function of the body. *Bramha Muhurta* is an intermittent duration between respiration and photosynthesis in plant kingdom. There will be abundant amount of nascent oxygen present in the environment; in nature singlet oxygen is commonly formed from water during photosynthesis, using the energy of sunlight which readily mix up with hemoglobin to form oxy-hemoglobin and supplies required amount of nutrients by reaching remote tissues and boosts the immune system because of oxygen deficient bodies are highly prone to diseases. Nascent oxygen is the singlet oxygen improves and regularizes the circulation what the body needs in order to neutralize the gastrointestinal, respiratory and metabolic toxic gases. Nascent oxygen bind with other elements like ionic sodium to biologically transmutate to potassium which helps to maintain the delicate balance of pH up to 7.365. Oxygen is also very important for optimal performance of your brain, which utilizes 25% of the body's oxygen, where as the nascent oxygen heighten cognitive functioning and brain stamina, nourishing the brain and keeping it youthful. Even the activities of the entire world and especially the living beings are not

yet started fully, so we get very good amount of pollutant free (dust, fumes, toxic gases from automobiles) oxygen in the air which we respire. Good amount of Moisture and Mist in the early morning makes heavy toxic elements and dust (which have tendency to disperse) to get settled down on the surface of the earth by adding up to their gravity.

*Vipul Jala*: It refers to the available of the clear and purest form of water in *Bramhi Muhurta*. It's possible to get contaminated free water because of natural purification method which happens by sedimentation of the pollutants at the bottom. Consumption of cold and pure water at that time, (*Usha Pana*) due to sudden water-pressure, the bits and particles of food that adhere to the walls of the intestines, along with gases, fecal matters and other undigested materials, disengage themselves from the intestinal walls, dissolve into the inflowing water and leave the body. In turn, this gives the intestinal cells a new lease of life. Coolant nature of water will nourish your brain cells.

*Vipul Aakasha* (Dawn): Transition from dim to bright light named as Dawn. This transition period Stimulates a nerve pathway from the retina in the eye to an area in the brain called the hypothalamus. There, a special center called the supra-chiasmatic nucleus (SCN) initiates signals to other parts of the brain that control hormones, body temperature and other functions that play a role in making us feel sleepy or wide awake. Once exposed to the first light each day, the clock in the SCN begins performing functions like raising body temperature and releasing stimulating hormones like cortisol (mood elevator) and alertness. So it's considered as



right time for Adhyayana because of increased concentration and alertness of mind to grasp the things which he read. Late rise from bed induces lethargic mood throughout the day causing inactivity.

*Vipul Desha*: It refers that noise free environment. Because of less activity of human beings and due to cease of automobiles make us to get noise free zone, which afford us to suitable time for gaining knowledge.

*Vipul Kala*: Precious time where we find a together effect of all above factors, this event should be assigned preferable to the activities which favors healthy personnel development of an individuals.

- **Mala Visarjana**: (Eliminating of feces and urine)

Responding to natural urges of feces and urine, helps to take out the toxins which are formed by the undigested and end product of digestion. Suppression of urges for long time leads to re-absorption of electrolytes and toxins which may leads to cramps, pain in abdomen in acute phase, where as in chronic phase it leads to digestive ailments like constipation, hemorrhoids, fissure, fistula, Cardiac ailments, hypertension because of *Vata Dosha Prakopa*. So it is indicated to eliminate the bowels during right call without any strain.

- **Achamana**:

In this context it refers to *Hastha Prakshalana* (hand wash), *Kavala* (gargling) *Netra Sparsha* (Splashing over the eyes) with water. Nature of the water depends on the type of food consumed. Preferable luke warm water is advisable. *Kavala* will prevents growth of bacteria's which are responsible

for halitosis, carries tooth and stomatitis by taking out the food particles which are stuck between tooth cavity, wipe out the stain's over the tooth's, gums and buccal mucosa, clears odour of the food, prevents the usage of tooth pick's, enhances the salivation and digestive secretions by cephalic phase.

- **Danta dhavana(Tooth brushing)**:

*Ayurveda* emphasizes the importance of Oral hygiene for which *Danta dhavana*, *Jihwa nirlekhana* and *dhumapana* are explained.

#### **Dantadhavana Dravya :**

Toothpaste of present day contains an abrasive (calcium phoshate dihydrate, chalk, alumina), humectants, binder, detergent, flavor (Cellulose), preservative and therapeutic agent. Flavors, colorings or preservatives may give rise to allergic reactions, the detergent or essential oil flavors may produce localized mucosal irritation. Ingestion of excessive amounts of fluoride toothpastes by young children has been implicated in dental fluorosis, degeneration of bones and teeth. Fluoride has a cumulative effect, once consumed it cannot be excreted. Population subjected to excess fluorine in drinking water over a period of time will suffer from flurosis.

This is the logic behind indicating twigs of plants possessing *Katu*, *Tikta*, *Kashaya Rasa Dravyas* for the purpose of *Danta Dhavana* as it poses minimum risk of allergic reactions or mucosal irritation. It is a known fact that astringent drugs possess analgesic and antiseptic properties. other than that, it also has following advantages:

- ✓ Maintains oral cavity hygiene



- ✓ Rasa of twigs neutralizes the Kapha and helps to clear the viscid mucous secretions.
- ✓ Provides good exercise for periodontal ligament by masticating the twig.
- ✓ Aid in anchorage of teeth in bony socket and makes them immobilized. If a person is contra indicated for *Dantadhavan* with *Datun*, then he is advised for usage of *Manjana*.

**Manjana(Tooth paste):**

They are substances used with toothbrush or other applicator on tooth surface and gingival for cosmetic and sanitary purposes and for applying specific agents to tooth surface for preventive and therapeutic purposes. It is also used as tongue cleaner by *Pratisarana*. As general measure, one can use tooth powder consisting Triphala, Trijataka with honey and Saindhava for person with Kapha and Pitta constitutions. Massaging the gums daily with Triphala mixed with Til oil maintains them in healthy state. Advantage of *Manjana* is similar with the *Dantha Dhavana*.

**Jihwa Nirlekhana (Tongue scraping):** Surface of the tongue is rough because the surface of this muscle is pebbled with tiny ridges and taste buds, which provides a deceptively large area for bacteria to live on, particularly since the root of the tongue extends far back into the throat. Many of the microbes lead to halitosis.

Advantages of Tongue scraping are

- ✓ Effective in eliminating the microbes that contribute to bad breath.
- ✓ Stimulates taste perception & increases the salivation (saliva contains Ptyalin, lysosomes, which acts as bactericidal).
- ✓ Increased threshold level of the basic taste

perception, Increased Stimulation levels of unconditioned reflex in cephalic phase for gastric secretion. Hence increased appetite & also proper digestion.

**Nasya (Nasal Instillation):**

It promotes strength and prevents diseases of *Urdhwajatru gata angas*. *Nasya* is a unique method of delivering drug via transnasal route. One distinct advantage of transnasal drug delivery is that drug uptake into the blood circulatory system by absorption through the nasal mucosa can be quite rapid. This is due to the large surface area, porous endothelial membrane, high total blood flow, the avoidance of first-pass metabolism, and ready accessibility. Transnasal drug delivery may be the route of choice for brain disorders such as migraine headaches, since there may be direct access from the nasal cavity to the central nervous system (CNS) via the olfactory neurons, thus avoiding the problems with the bloodbrain barrier observed for drugs administered intravenously; however, this remains to be confirmed and quantified. Another distinct advantage of transnasal drug delivery over conventional oral drug administration in the form of drug-containing tablets and liquids is the avoidance of low pH, associated chemical degradation, enzymatic inactivation and hepatic extraction of the drug.

The logic behind advocating medicated oils for the purpose of *nasya* is evident from the fact that the nasal mucosa presents an ideal site for bioadhesive drug delivery systems. Drug delivery systems, such as microspheres, liposomes and gels have been demonstrated to have good bioadhesive characteristics and that swell easily when in contact



with the nasal mucosa. These drug delivery systems have the ability to control the rate of drug clearance from the nasal cavity as well as protect the drug from enzymatic degradation in nasal secretions.

- **Gandusha and Kavala (Gargling):**

They are intended to tone up jaw and facial muscles along with maintaining oral hygiene. The oral mucous membrane has capacity to absorb the lipid soluble drugs hence the lipid soluble constituents present in *Kavala* & *Gandusha* gets absorbed. It enhances the sensory and motor functions of tongue, stimulate blood flow, relieve tension, and improve overall appearance of the face.

*Gandusha* and *Kavala* both are variety of gargling. Both are auxiliary methods. Which is used for rinse to dislodge food debris and for other therapeutic purpose. - Til oil or Mamsa Rasa is best *Gandusha* material for everyday. - *Gandusha* of Madhu cleans the over mucoidal secretion - *Gandusha* of kanji cleans the debris and reduce foul smell. - *Gandusha* of Kshara reduce the Sanchaya of Kapha. - *Gandusha* of lukewarm ware reduce the Guruta of Mukha

- **Vyayama (Physical exercise):**

Physical activities up to the half of one own capacity (*Ardha shakti*) is considered as right duration of exercise according to *Ayurveda* excellence. Indulging in such activities will helps to increases the digestive power, makes body light & able to withstand exhaustion. It helps in maintaining the healthy state of body & mind, maintains ideal body Weight, Lypolysis of accumulated adipose tissue, metabolize carbohydrate, increases oxygen supply to all

tissues.

In addition, studies that followed large groups of individuals for many years have documented the protective effects of physical activity for a number of non cardiovascular chronic diseases, such as noninsulin-dependent diabetes, hypertension, osteoporosis, and colon cancer.<sup>[9]</sup> In contrast, one can observe a higher rate of cardiovascular events and a higher death rate in those individuals with low levels of physical fitness.

- **Abhyanga (Anointment):**

Daily massaging with medicated oil or anointing the body with oil, will improves blood circulation, provides better transportation of oxygen and nutrients to various body tissues. It increases nerve stimulation (sensitivity) depending on the area on which it is done (*Pada, shiras, Shravana & Sarva deha Abhyanga*). Relaxes and softens injured and overused muscles. Other benefits include Nourishment to hair roots and eyes, tones up muscles, Increases skin complexion.

- **Udvardana (Powder massage):**

Is the process of rubbing the body with herbal powder in opposite to the hair root. This helps in the prevention of the Obesity by taking out the stored fat in the form of sweat. Also improves the digestion by increasing circulation to liver and brings stability.

- **Snana (Bath):**

Is the cleansing method helps to take out the dirt and germs which are going to stay over the skin while exposing to the polluted environment. Even regular bathing boosts digestive fire, strengthens the body, act as aphrodisiac and prevents all contagious skin ailments.

- **Ahara sevana (Food intake):**



Concept of balanced diet in *Ayurveda* is considered under the heading of *Ashta Ahara Vidhi Vishesha Ayatana* (eight dietetic measures) and *Dwadasha ashana pravichara* (twelve factors to be considered while planning a meal). In general food must be pleasant to taste & should be pure, fresh & warm. The influence of psychology over food consumption is well appreciated nowadays as the nutritionists and dieticians recommend not to eat in front of the TV or while busy with other activities, Pay attention to what you are eating, chew your food well, and fully enjoy the smell and taste of your foods. These concepts are being explained in *Ayurveda* under *Ashta Ahara Vidhi Vishesha Ayatana* which states that the food consumed should be fresh and warm, unctuous, balanced and one should not take any food unless there is proper digestion of previous meal and appetite. Food should be consumed in a pleasant place, neither too fast nor too slow, one should restrain from laughing, engaging in talks, enjoy the meal with due consideration to quality and quantity of food, concentrate on the food which is being consumed.

● **Mukha Vaishadhy kara Dravya Sevana:**

*Kapha Dosha* dominancy will be there soon after *Aahara Sevana*, action of *Pachaka Pitta* will be diminished which may leads to indigestion, this happens because of *Kapha Dosha* predominance.

Then person should go for *Tambula Sevana* or any *Sugandha Dravya Sevana* like *Shatapushpa*, *Karpura*, *Jatiphala*, *Lavanga*, *Nagavalli patra* etc. These *Dravyas* in general because of *Katu*, *Tikta*, *Kashaya Ras* enhances the function of *Pachaka Pitta* and lessen the *Vata* and *Kapha Dosha* which hinders the proper digestion and assimilation.,

improves the taste perception by stimulating taste buds and salivation (*Ruchi karak*), helps to maintain oral hygiene, increasing the enzymatic secretion which aids in proper digestion of food, act as anti helimenthicus (*Krimi Hara*), helps to take out the *Kapha* and *Vataja Mukha Roga's*.

● **Tambula sevana:** It is told as *Mukha Vaishadyakara*.

**Tambula Guna-** *Teekshna*, *Ushna Veerya*, *Ruchikaraka*, *Kashayarasa*, *Saraguna Asyavairasya Nashaka*. Besides the aforesaid benefits betel leaves has many proven medicinal uses.

**Betel leaf:** Betel leaves have a strong pungent aromatic flavor and is widely used as masticators. The presence of a large quantity of *Diastase* in the betel leaves is likely to play an important part in starch digestion. Large quantities of saliva produced by chewing betel leaf act as digestive and probably the presence of diastase enhance this activity. The leaves contain good amount of B vitamins (particularly nicotinic acid) ascorbic acid and carotene.

The essential oil contained in the leaves possesses antibacterial, antiprotozoan and antifungal properties. Therefore, the oil kills or inhibits growth of dreadful bacteria causing typhoid, cholera, tuberculosis etc that needs proper evaluation and exploitation.<sup>11</sup> The leaves are very nutritive and contain substantial amount of vitamins and minerals. The leaves also contain the enzymes like diastase and catalase besides a significant amount of all the essential amino acids except lysine, histidine and arginine, which are found only in traces.<sup>12,13</sup>

**Shatapushpa** (fennel Seeds): Fennel seeds



have many health benefiting volatile essential oil compounds such as *Anethole*, *Limonene*, *Anisic Aldehyde*, *Pinene*, *Myrcene*, *Fenchone*, *Chavicol*, and *Cineole*. These active principles known to have antioxidant, digestive, carminative, and anti-flatulent properties.

**Lavanga (Clove):** Cloves contain up to 22 percent volatile oil, which is comprised of *sesquiterpenes*, *Eugenic acid* and *Crategolic acid*, all beneficial in the treatment of topical pain. These properties also make cloves a useful digestive aid, increase the motility of the gastro intestinal tract, improve the digestion by increasing gastro-intestinal enzyme secretions. The terpenoids, sometimes called isoprenoids, are a large and diverse class of naturally occurring organic chemicals Improve digestion.

**Jatiphala (Nutmeg):** Because of *Katu*, *Tikta Rasa*, and *Ushna Virya* helps in proper digestion of the food. The spicy nut contains fixed oil *trimyristin* and many essential volatile oils such as which gives sweet aromatic flavor to nutmeg like *myristicin*, *elemicin*, *eugenol* and *safrole*. The other volatile oils are *pinene*, *camphene*, *dipentene*, *cineole*, *linalool*, *sabinene*, *safrole*, *terpeniol*. active principles in nutmeg have many therapeutic use as anti-fungal, anti depressant, aphrodisiac, digestive and carminative functions.

**Kankola (piper cubeba):** Peppercorns are composed of many essential oils such as *piperine*, an amine alkaloid, which gives strong spicy pungent character to the pepper. It also contains numerous *monoterpenes* hydrocarbons such as *sabinene*, *pinene*, *terpenene*, *limonene*, *mercene* etc that gives aromatic property to the pepper increase the

motility of the gastro-intestinal tract as well as increases the digestion power by increasing gastro-intestinal enzyme secretions. It has also been found that *piperine* can increase absorption of selenium, B complex vitamins, beta-carotene, as well as other nutrients in the food.

**Khadira (Acacia catechu):** have been reported to have various pharmacological effects like immuno modulatory, anti pyretic, hypoglycaemic, hepato-protective activity, Cutch is astringent, cooling, and digestive.

● **Dhumapana (Medicated Smoking):** It promotes strength and prevents diseases of *urdhwajatra gata angas*. It has a stimulant effect on the respiratory center in brain stem. Disinfective action on the nasal mucosa and nasopharynx. Maintains the patency of nasopharynx and oropharynx as it clears excess secretions.

● **Sadvritta Palana:** Being good at physical, mental and verbal activities keeps an individual away from all sort of psychological ailments, especially stress, which is considered as the root cause of major diseases of civilization.

**Conclusion:** Civilization is an inevitable factor, which is always subjected to change. Adapting to the changing civilization make the person to become victim of many ailments which are usually termed as Lifestyle disorders. *Ayurveda* being an ancient science given excellent preventive tools, which can be adopted even to today to tackle the innumerable ailments. *Swasthavritta* which incorporates *Dinacharya*, *Ritucharya* and *Sadvritta*, guides us to follow all the diurnal, nocturnal, seasonal and psychological regimen to get rid of all the culprits from the body that may lead to healthy



life.

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# A REVIEW OF PREVALENCE OF VITILIGO IN DM : COMBAT WITH AYURVEDA

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## Abstract :

Vitiligo is an acquired pigmentary anomaly of the skin characterised by depigmented white patches surrounded by a normal or hyperpigmented border. The conditions most frequently associated with Vitiligo, which is an autoimmune disorders that includes type I DM, Pernicious anaemia, Hashimoto thyroiditis, Graves' ds, Addison's ds, Alopecia areata. In case Vitiligo associated with DM, the disorder may be treated first. The Treatment Plan can be divided into two parts as (i) Non-pharmacological like exercise & lifestyle, (ii) Pharmacological like treatment with drugs. Non pharmacological treatment includes exercise and life style modification. Maharshi Sushruta has advocated for Shatyojana Gamanam (walking), Bhikshavritti & Shilavritti dharana with proper protection of body. In Texts like Yoga Ratnakar, all low glycemic index containing diets have been advised for patients of madhumeha. Pharmacological treatment can be administered through Kasthanushadhis & Rasa aushadhis. Kasthanushadhis include Methi, Guduchi, Meshashringi & Rasaaushadhis include Svarnamakshik, Tribanga, Shilajit etc.

**Keywords :** Shvitra, Madhumeha, Kilasa, Diabetes

Mellitus.

## Introduction :

Vitiligo is an acquired skin disorder characterized clinically by totally white macules or spots and microscopically by the total absence of pigment producing cells in the skin called "melanocytes". The typical vitiligo macule Chalk white in colour, has convex margin, 550 mm diameter, round, oval or elongated shape, linear macules representing the isomorphic or koebner phenomenon. It affects at least 12% of population, irrespective of age, sex, race, begins in childhood or young adulthood with peak onset between 10 to 30 years. It results from a number of factors, such as auto immune, neurotrophic & cytotoxic.

Six types of vitiligo have been described according to the extent and distribution of lesions :-

- 1) Localized.
- 2) Focal Single or few macules in one anatomic asymmetrically affected area as glans penis
- 3) Segmental,
- 4) Generalized,
- 5) Universal entire body surface depigmented
- 6) Acrofacial affects distal fingers and facial orifices (lips and tips),

Vitiligo is differentiated from clinical conditions :-

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- I) Pityriasis alba- Slight scaly, fuzzy margins.
- II) Tinea Versicolor- Fine scales, positive in KoH exam.
- III) Lichen Sclerosus atrophicus- White atrophic lesions with loss of tissue markings.
- IV) Piebaldism Congenital- white forelock and patchy absence of skin pigment
- V) Chemical Leukoderma H/O exposure to certain phenolic germicides.
- VI) Post inflammatory hypomelanosis

#### **Relation between Vitiligo & Diabetes Mellitus**

Sezary & Dupuy were the first to mention the association between Vitiligo & DM. They attributed the skin discolouration to some pancreatic influence. The metabolic deregulations associated with DM causes secondary pathophysiological changes in multiple organ systems including the skin. Longstanding DM may cause an injury to melanocytes resulting in the release of an antigenic substance, antimelanocyte antibody formation, inhibition of melanogenesis and occurrence of vitiligo.

The incidence of DM in vitiligo patients ranges in between 17% in literature and vitiligo may precede the onset of DM. Dawber suggested that DM should be excluded in late onset vitiligo. Among 457 Diabetic Subjects attending an outpatient clinic, 9% had vitiligo lesions in Karachi. In another series in 10% of 100 patients with DM had vitiligo compared with incidence of 1% in general population.

DM & vitiligo share a common risk factor of familial predisposition. DM often present in close relatives of patients with Vitiligo. Both vitiligo & DM are associated with HLADR3 & HLADR4. No race is spared in vitiligo & DM. The genetic predisposition can therefore be linked with auto-immunity. It is possible that the same patient may have a genetic predisposition to both vitiligo & DM as opposed to a casual relationship.

#### **Shvitra & Madhumeha**

In Ayurveda, Vitiligo is known as Shvitra Kustha. There are 3 varieties of Kilasa Kustha :-

- 1) Daruna Lesion reddish colour, involves Rakta dhatu.
- 2) Charuna Patches coppery colour, involves Mamsa dhatu.
- 3) Shvitra Patches white colour, involves Medo dhatu.

Most commonest variety is compared with vitiligo.

Maharshi Charak stated the correlation between Shvitra & Madhumeha in context of Bija Dosha.

1. Caraka Samhita with Ayurvedadipika Commentary of Cakrapani Dutta

2. Park's Preventive and Social Medicine, 15<sup>th</sup> Ed  
जातः प्रमेही मधुमेहिनो वा न साध्य उक्तः स हि बीजदोषात् ।

ये चापि केचित् कुलजा विकारा भवन्ति तांश्च प्रवदन्त्यसाध्यान् ॥

(Cha. Chi. 6/57)



Kulaja vikara includes kustha, prameha etc. so there is a relationship between Shvitra & Madhumeha in context of Bija dosha.

Dushya involvement in both these conditions is medo dhatu.

**Treatment :**

There are some common herbs described for Shvitra & Madhumeha in various classical texts.

- 1) Bakuchi (*Psoralea corylifolia*) Pramehaghna & Kusthaghna. Seed contains .05% volatile oil & alkaloids like Psoralm & Isopsoralen.
- 2) Somaraji (*Centrathrum anthelminthicum*) Seed contains volatile oil (0.02%) & Resins (1%).
- 3) Tuvaraka (*Hydnocarpus laurifolia*) Kusthaghna; 63.25% fixed oil which contains chalmugric acid, Hydnocarpic acid & palmitic acid.

म्हाषीर्यस्तुवरकः कुष्ठमेहापहः परः ।।

(Su. Chi. 13/34)

Some common medicines described in various treatises for Shvitra & Madhumeha are

- 1) Lodhrasava (Cha. Chi. 6/41 44)
- 2) Vidangadi Churna (Yogaratanakar Kustha Ch./80<sup>th</sup> verse)
- 3) Kanakabindu Arishta (Cha. Chi. 7/7579)
- 4) Those who use fried Yava & Saktu, Mudga Yusha & Amalaki don't suffer from Shvitra Kustha.

**Conclusion :-**

Vitiligo & DM may have a casual relation, both associated with auto immunity. Hereditary

tendencies occur in both diseases. There is neuropathic complications in DM & in vitiligo dermatodermal variety occur with evidence of degenerated nerve-endings. The products of oxidative stress, free radicals & release of various growth factors may be cytotoxic affecting melanogenesis. Ayurvedic & ethnic practices can be used effectively as parts of comprehensive treatment programme for both disorders.

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# HEALTH TOURISM IN INDIA IN REFERENCE TO YOGA AND MEDITATION

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## Introduction-

No one knows precisely when Yoga began, but it definitely predates written history. Stone carvings depicting figures in Yoga positions have been found in archeological surveys in the Indus Valley, proving the existence of classical techniques of Yoga date back more than 5,000 years. In ancient times, may be the desire for greater personal freedom, health and long life, and heightened self-understanding gave birth to this system of physical and mental exercise, which gradually since spread all over the world. Basic knowledge of yoga has been documented in Prachin Upanishad (600B.C.), Shrimadbhagwatgita (500B.C.), and Patanjalyogadarshan (300B.C).

Industrialization and development in technology has given an immense impact on human lifestyle. Although materialistic development provided physical pleasure to human being at the cost of mental calmness. Anxiety, depression, diabetes, hypertension etc are supposed to be the consequence of unfathomable stress. Alternative medicine, yoga and meditation have drawn unprecedented attention globally, since last few decades. Bio-Medical scientists now have realized the effect of yoga and meditation on mind and body. Validity also has been established

as for as positive health is concern. All the sections of society have shown their great concern in study and practice of yoga due to its short-term as well as long-term physical and mental health benefits. The aims of the yoga enthusiasts are extremely diverse. Some are particularly motivated by the Spiritual constituent that yoga provides; others by the augmented fitness and flexibility, strengthen the body. Some people find solutions to suffering from different health disorders and others achieve an overall development of a calm, stress-free mind and a fit body. Regular practice of asana, pranayama and meditation can help varied ailments such as diabetes, blood pressure, digestive disorders, arthritis, arteriosclerosis, chronic fatigue, asthma, varicose veins and heart condition. The aging process, which is mainly developed by faulty life style regimen, causes autointoxication due to over production of free radicals, can be slowed down by practicing yoga. Yoga keeps the body clean, flexible and sound lubricated, also significantly reduces the catabolic process of body. To get the maximum benefits of yoga one has to combine the practices of Yogasana, Pranayama and meditation. Yoga breathing exercise help to trim down the effect of stress and enhance concentration and self-control; and

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relaxation and meditation techniques help one learn to relax the body at will and to harmonize the inner source of strength and happiness. It always has been pursuits of human being to live long devoid of stress and ailments by natural way. Practice of Yoga and Meditation have quite ability to fulfill these requisites. India has enormous potential to be developed as brand destination for yoga and meditation in the world owing to its outstanding natural climatic condition, abundance of skilled instructors providing cost effective services.

#### Medical Tourism in India-

Now tourism industry has been fastest growing Smokeless industry in the world and movement of the people, residential place to non residential place is growing very fast for medical purposes. India attracted about 4 million foreign tourists in 2006 who spent US\$ 8.9 billion. The tourism industry in India generated about US\$ 100 billion in 2008 and that is expected to increase to US\$ 275.5

Table 1

Yam	Niyam	Asana	Pranayam	Pratyahar	Dharana	Dhyan	Samadhi
Ethical practice		Physical practice		Sensorial practice	Meditative practice		
Ahimsa	Shauch	Dhyan Asana	Ujjai				
Satya	Santosh		Suryabhedan				
Astey	Tapa	Vishrantikar Asana	Sheetakari				
Brahmcharya	Swadhyay		Sheetali				
Aparigrah	Ishwrpranidhan	Sanmvardhanatmak	Bhastrika				
		Asana	Bhramari				
			Murchha				
			Plavini				

billion by 2018 at a 9.4% annual growth rate. According to World Travel and Tourism (UNWTO), tourism in India had the highest 10 year growth potential. Studies say health tourism is projected to be the next big item after India's IT outsourcing boom. A 2009 report by the Confederation of Industries (CII)-McKinsey forecasts that, medical tourism will generate US\$2.4 billion during 2009-2012 for India by attracting 1.1 million health tourists, up from 150,000 in 2002. Traditional Indian treatments cover every aspect of medicine at a rational cost. This provides the perfect thrust for abroad patients to come to India.

#### Yoga and meditation-

Yoga is derived from Sanskrit word "Yuj" which means to join or unite that reflect the sense of to unite mind, body and soul. Patanjali lay down the most prevalent Yoga theories and practices of his time in a book called as Yoga Sutras ("Yoga Aphorisms"). The system that he wrote about is known as "Ashtanga Yoga," (the eight limbs of Yoga)



and it is generally referred as Classical Yoga. Ashtanga Yoga comprise 1-Yam 2-Niyam 3-Asana 4-Pranayam 5-Pratyahar 6-Dharana 7-Dhyan 8-Samadhi.

**1-Yam-** Abstaining from violence, lying, stealing, casual sex, and hoarding.

**2-Niyam-** Purity, contentment, tolerance, study, and remembrance.

**3-Asana-** Illustrates physical exercises and is a dynamic position, in which the practitioner is perfectly poised between activity and non-activity; corresponding mental balance exists between movement and stillness.

**4-Pranayam-** Deals with breathing techniques.

**5-Pratyahar-** It is preparation for meditation, described as “withdrawal of the mind from the senses”.

**6-Dharana-** Practice of concentration enables to hold the mind on one object for a specified time.

**7- Dhyan-** It is the state of meditation and ability to focus on one thing for an indefinite period.

**8- Samadhi-** Absorption or realization of the essential nature of the self.

Modern Western Yoga classes generally focus on the 3rd, 4th, and 5th steps.

#### **Types of Yoga**

There are different schools of Yoga. Some of the well known area as follow-

**Hatha Yoga-** Its includes physical movements and postures, and breathing techniques. Most people associate with this Yoga practice.

**Raja Yoga-** It is known as the royal road, because it incorporates exercise and breathing practice with

meditation and study.

**Gyana Yoga-** The path of wisdom and practice of extreme devotion in one-pointed concentration upon one's concept of God.

**Karma Yoga-** All movement, all work of any kind is done with the mind centered on a personal concept of God.

**Tantra Yoga-** A way of showing the unseen consciousness through specific words, diagrams, and movements.

**Kashmir Shaivism-** This Yoga system states that everything in the universe has both male and female qualities; these male and female principles form an equal partnership, so interdependent that they cannot be separated and produces the ultimate union of opposites, creating the immense complexity of the universe that we enjoy and celebrate.

#### **How yoga and meditation works-**

In view of medical scientists, yoga therapy is thriving because of the balance created in the nervous and endocrine systems, which influences all the other systems and organs of the body. Yoga acts both as a curative as well as preventive therapy. The very soul of yoga lies in attainment of mental peace, enhanced concentration powers, relaxation state of mind and synchronization in relations. Yoga poses are premeditated to put pressure on the glandular systems of the body, thereby increasing its competence. The inverted postures such as the headstand, shoulder stand and the reverse posture take advantage of gravity to increase the flow of blood to the desired part of the body; in the



headstand to the brain, in the shoulder stand to the thyroid gland and in the reverse posture to the gonads (sex glands). The position of the Asana causes a squeezing action on a specific organ or gland, resulting in the stimulation of that part of the body. Stretching muscles and ligaments in Yoga exercise causes an increase in blood supply to the muscles and ligaments as well as relaxing them. It also withdraws pressure from nerves in that area. This stretching is involved in all the Asana, While holding the yoga posture, slow and deep breathe (abdominal breathing), attention on the target organ or gland increases the circulation, enhanced supply of oxygen and Prana to the target organ or gland, thus enhancing the function of the concern organ or gland.

Breathing techniques are based on the concept that breathes (pran-vayu) is the source of life. In Yoga, gentle increase in breath control improves the health and function of both body and mind. Physiologically, respiratory muscles are strengthened and develop a more efficient exchange of gases. Breathing exercises cause more oxygen to be pushed through the walls of the lungs. Yoga exercise and breathing prepare the body and mind for meditation. Regular practice of meditation helps build up concentration and willpower.

#### **Centers of Yoga and Meditation in India:**

Patanjali Yoga Peeth Trust Haridwar: India is very rich in yoga, Baba Ram Dev a well-known Yoga guru established Patanjali Yog Peeth Trust. The dream project of Baba Ramdev located 15 Km from Haridwar, was inaugurated on August 6, 2006. Baba

Ramdev's aim was to build the world's largest center of Ayurveda, Yoga and Pranayam.

Ramamani Iyengar Memorial Yoga Institute, Pune: Situated in Pune, 250 kilometers (155 miles) from Mumbai, the institute caters to advanced students of yoga.. The Iyengar school emphasizes in-depth study of *Asanas* (postures) and *Pranayama* (breathing).

#### **Ashtanga Yoga Research Institute, Mysore:**

This institute is situated in Mysore, which is visited by most of foreigners. It was established by Sri K. Pattabhi Jois.

#### **Krishnamacharya Yoga Mandiram, Chennai:**

Based in Chennai, south India, this institute teaches the viniyoga brand of gentle yoga. The guru is T. K. V. Desikachar.

#### **Shivananda Yoga Vedanta Dhanwantari**

**Ashram, Trivandrum:** Situated in the sylvan surroundings of the Neyyar dam and forests just outside Kerala's capital, Trivandrum. The school, founded in 1977 by Swami Vishnudevananda.

#### **Parmarth Niketan, Rishikesh:**

Situated in the Himalayas on the banks of the Ganges. The institute has long catered to Indian travelers to the holy city of Rishikesh. Swami Chidanand Saraswati is the president of Parmarth Niketan.

In addition to these centres in India almost every city has well-known yoga and meditation centers where proficient yoga Guru gives their expertise guidance. Presently Baba Ram Dev funded **Patanjali Yog Peeth Trust opening yoga and meditation centers in every city even in villages also. Tourist can avail these facilities with the help**



**of local tour operator / travel agent / tourist guide,**

**Conclusion:** Medical Tourism in India is growing by more than 30 per cent each year, the health care sector in India has witnessed a phenomenal growth in infrastructure in the private and voluntary sector. The private sector is flourishing industry and it is equipped with the most modern state-of-the-art technology at its disposal. An added plus had been that India has one of the largest Yoga and meditation center in the world. It is self sufficient for Indian medical tourism to attract more than 180 countries international tourist and domestic travelers for promoting tourism industry and make it as major engine for economic development and employment generation.

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## HERBAL APPROACH IN LIVER DISEASES

• \*Anjali Goyal\*\*Arvind Kumar Gupta\*\*\*Baldev Kumar

**Abstract:-**Herbal medicines have been used in the treatment of liver diseases for a long time, so the maintenance of a healthy liver is essential for the overall well being of an individual. Liver injury induced by toxins is more common nowadays. Herbal remedies are focused in the pharmaceutical industry to evolve a safe route for liver disorders. Therefore, hepatoprotective natural products such as *Andrographis paniculata*, *Curcuma longa*, *Picrorrhiza kurroa*, *Eclipta alba*, *Phyllanthus niruri*, *Solanum nigrum*, *Glycyrrhiza glabra*, *Berberis aristata*, *Emblica officinalis*, *Tinospora cordifolia*, *Boerhavia diffusa* are going to be discussed in this article. Hepatic disease (Liver disease) is a term that affects the cells, tissues, structures, or functions of the liver. Herbal drugs are more widely used than allopathic drugs as hepatoprotective because majority of them are inexpensive, better acceptability, better compatibility, with the human body and having minimal side effects. These herbal drugs have been shown the ability to maintain the normal functional status of liver.

**Key Words:-** Hepatoprotective, Herbal remedies, detoxification, karmala.

**Introduction:-** Ayurveda, is a system of holistic healing that originated in India. Charaka

Samhita and Sushruta Samhita are two main classical Ayurvedic texts, the roots of which can be traced back to 1000 B.C. These texts describe the indications, pharmacognostic, pharmacological and therapeutic properties of over 700 Indian plants in detail. Where the liver is damaged scar tissue forms and stops the flow of healthy cells. Eventually if the scar tissue outnumbers of the healthier tissue then liver's functioning gradually deteriorates. If this occurs it is sought immediately and procedures followed to give to the liver a chance to heal. The longer it is left in a damaged state the less the chances of recovery. The Liver has a pivotal role in human metabolism as:-

- The liver produces and secretes bile (to be stored in the gallbladder until needed) that is used to break down and digest fatty acids.
- It also produces prothrombin and fibrinogen, blood-clotting factors, and heparin, a mucopolysaccharide sulfuric acid ester that keeps blood from clotting within the circulatory system.
- The liver converts sugar into glycogen, which it stores until the muscles need energy and it is secreted into the blood stream as glucose.
- The liver synthesises proteins and cholesterol and converts carbohydrates and

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proteins into fats, which are stored for later use.

- It also produces blood protein and hundreds of enzymes needed for digestion and other bodily functions.
- The liver also produces urea, while breaking down proteins, which it synthesises from carbon dioxide and ammonia. It is eventually excreted by the kidneys.
- The liver also stores critical trace elements such as iron and copper, as well as vitamins A, D, and B12.
- The liver is also responsible for detoxifying the poisonous substances by transforming and removing toxins and wastes.

#### **Liver Disorders:-**

In Ayurveda, liver is known as *yakrita*. It has been described as one of the chief organ of the human body. The major disease described in Ayurvedic texts is *Kamala*, which is compared with jaundice. According to Charaka Samhita, *Pandu* (anemia) and *kamala* are related to each other. In fact if a patient suffering from *pandu* keeps on consuming *pitta* aggravating foods, the already disturbed *pitta* further affects blood and skin resulting in *kamala*. The eyes, skin, mucus membrane and nails are yellow coloured. In addition the patient has general debility, indigestion and anorexia. Liver disorders described in modern medicine are:-

- Hepatitis may be viral, toxic or deficiency type.
- Cirrhosis
- Liver failure

**Hepatitis:-** Among the many diseases that can affect the liver the most common is 'viral hepatitis' (Inflammation of liver cells caused by viral infection). Hepatitis can be caused by drugs, viruses, bacteria, mushrooms, parasites like amoebas or giardiasis. The most common hepatitis viruses affecting the liver are named for letters of the alphabet: hepatitis A, hepatitis B, hepatitis C, hepatitis D, and hepatitis E.

**Hepatitis A-** Hepatitis A is usually spread through dirty food and water. Symptoms typically appear 2 to 6 weeks after start of infection. Nausea, diarrhoea, appetite loss, jaundice, abdominal pain etc. are the important one. Patient is advised to take rest, avoid alcohol and fatty foods, eat a balanced diet.

**Hepatitis B-** It is transmitted through direct contact with blood, serum, saliva, faeces, urine, and sexual contact. They may not be manifest any signs and symptoms in a majority of patients. Some patient's develops symptoms like tiredness, loss of appetite and bodyache. They may develop dark urine, pale feces and yellow discolouration of skin. Vaccination against virus is effective in preventing infection.

**Hepatitis C-** is a truly serious disease with no known effective treatment. It is transmitted through blood and body fluids in transfusions, injections, the sharing of IV needles with drug users, and possibly by sexual contact with exposed partners. There is no vaccine against



hepatitis C. The symptoms of infection can be medically managed, and a proportion of patients can be cleared virus load by a long course of anti-viral medicines.

**Hepatitis D-** only occurs in the presence of Hepatitis B virus.

**Hepatitis E-** It is another common type of hepatitis in developing countries. It occurs in epidemics. The infection route is faeco-oral, same as the route for Hepatitis A virus; therefore, again, must be very careful in what we eat and drink.

**Cirrhosis:-** Cirrhosis of the liver is a chronic, diffuse degenerative liver disease in which the parenchyma (the functional organ tissue) degenerates, the lobules are infiltrated with fat and structurally altered, dense perilobular connective tissue forms, and areas of regeneration often develop. Severe cirrhosis leads to ammonia toxicity, hepatic coma, gastrointestinal haemorrhage, and kidney failure. The most common cause of cirrhosis is believed to be alcohol abuse.

**Liver failure:-** Liver failure is the inability of the liver to perform its normal synthetic and metabolic function as part of normal physiology. Two forms are recognized, acute and chronic. Acute liver failure is an uncommon syndrome in which hepatic encephalopathy, characterised by mental changes progressing from confusion to stupor and coma, results from a sudden severe impairment of hepatic function. Chronic liver failure develops when the functional capacity

of the liver can no longer maintain normal physiological conditions and is characterised by the presence of encephalopathy and/or ascites. If a virus causes liver failure, supportive care can be given at hospital to treat the symptoms until the virus runs its course. In these cases, the liver will sometimes recover on its own. For liver failure that is the result of long-term deterioration, the initial treatment goal may be to save whatever part of the liver is still functioning. If this is not possible, then liver transplant is required.

**Ayurvedic herbs for treatment of liver diseases:-** Although the Ayurvedic texts have not described liver diseases in detail but still number of formulations have been mentioned which have been used successfully by practitioners of Ayurveda. These formulations are of diverse origin and may be derived from plant source alone or herbs in combination with minerals. In following pages we will discuss popular Ayurvedic medicinal herbs used in the treatment of liver diseases.

***Andrographis paniculata* (kalamegh):-** *Andrographis paniculata* is known as Bhunimba or Kalamegha in Ayurveda. It is used as bitter tonic and febrifuge. It contains diterpene lactones (Andrographolide, neoandrographolide and kalmeghin). Traditionally this herb has been used to potentiate immune system response to inflammation and infections and as an anti-inflammatory, antipyretic (lowers fevers) and a hepatoprotective (liver protector).



Traditionally it is used for treatment variety of ailments including liver disorders. The diterpenes of andrographis were shown to increase glutathione (GSH), which may decrease susceptibility of the tissue to oxidative damage.

***Eclipta alba (bhringaraja)***:- *Eclipta alba* grows wild in moist places or on the sides of water channels. It contains resin, alkaloid (eclipticine), and Wedelolactone (C<sub>15</sub>H<sub>10</sub>O<sub>7</sub>). Another alkaloid, 25-β hydroxyverazine has been reported from alcoholic extract of the *Eclipta alba*. It is used as a tonic and diuretic in hepatic and spleen enlargement. It is commonly used in viral liver to promote bile flow and protect the parenchyma. It is a source of coumestans-type compounds used in phytopharmaceutical formulations of medicines prescribed for treatment of cirrhosis of the liver and infectious hepatitis. It is widely used in India as a chologuague (aids bile secretion) and deobstruent (removes functional obstructions in the body) in hepatic enlargement, for jaundice and other ailments of the liver and gall bladder.

***Picrorrhiza kurroa (Kutki)***:- The active constituent is known kutkin, a mixture of kutkoside and picroside. Other constituents are apocynin, andorsin, and cucurbitacin glycosides. Pharmacologically Kutkin has hepatoprotective activity. Apocynin is a potent NADPH oxidase inhibitor and has anti-oxidant and anti-inflammatory activity. Ayurveda describes it as bitter in taste and

light, dry and cold in effect. While alleviating Kapha and Pitta, it has a wide range of action on the human body mainly accounted for as Yakrit-uttejaka (liver-stimulator). It alters the structure of the outer membrane of the hepatocytes in such a way as to prevent penetration of the liver toxin into the interior of the cell. It stimulates the action of nucleolar polymerase A, resulting in ribosomal protein synthesis and, thus stimulates the regenerative ability of the liver and formation of new hepatocytes.

***Phyllanthus niruri (Bhumyamala)***:- *Phyllanthus niruri* is well-known Ayurvedic plant used for its beneficial effect in liver diseases. It is bitter herb that traditionally used to care for hepatitis and jaundice. Phyllanthin, hypophyllanthin and tricontanal all the three constituents demonstrate hepatoprotective activity. Phyllanthin and hypophyllanthin are active against carbon tetrachloride and galactosamine induced hepatotoxicity whereas tricontanal is active only against galactosamine induced hepatotoxicity. Phyllanthus blocks DNA polymerase, the enzyme needed for the hepatitis B virus to reproduce.

***Solanum nigrum (Makoya)***:- *Solanum nigrum* commonly called Black nightshade or Kakamachi, grows as a weed, found in the dry parts of India and other parts of the world. Whole plant and berries are used in medicine. It is an excellent remedy for liver disorders. The fruit contains four glyco-alkaloids including



Solamargine, solasonine or solanine and solanigrine. Solamargine and solasonine are present in leaves also. Inhibition of lipid peroxidation and free radical scavenging activity has been suggested as a possible mechanism of action.

***Boerhaavia diffusa* (Punarnava):-** In Ayurveda it is known as Punarnava and commonly known as spreading hogweed. The roots of the plant are used for liver and gall bladder diseases. However its specific use in Ayurveda is as diuretic. It contains an alkaloid punarnavine. Roots contain the rotenoids boeravinone A, B, C and F and punarnavoside has also recently been isolated. It has been used to treat hepatic disorders for thousands of years. Today there are many studies that verify the claim. One animal study evaluated the effect of *B.diffusa* on rats with ethanol induced liver damage. The liver damage consisted of increased levels of cholesterol, free fatty acids and triglycerides in the liver and kidneys, all of which were reversed after treatment with *B.diffusa*.

***Curcuma longa* (Haridra):-** *Curcuma longa* commonly known as turmeric is another plant which has got scientists attention as novel hepatoprotective agent. Dried rhizomes are used in medicine. It contains yellow coloured coloring matter called curcumin. Curcuminoids have shown to be antioxidant and anti-inflammatory activities. Turmeric protects liver from the damaging effects of alcohol, toxins and even some pharmaceutical drugs. It can

regenerate damaged liver cells. *Curcuma longa* stimulates the production of bile. The herbs are also involved in shrinking engorged hepatic ducts and improve gall bladder function. Herbalists used it to treat biliousness and conditions caused by excessive bile such as nausea, gas and heartburn as well as for flushing out gallstones. They also used the herb for liver conditions such as hepatitis, cirrhosis and jaundice.

***Glycyrrhiza glabra* (Yashtimadhu):-** *Glycyrrhiza glabra* is popularly known as licorice. In Ayurveda, it is known as Yashtimadhu which signifies sweet taste of the drug. The roots are used in medicine. It contains glycosides including glycyrrhizin, glycyramarin, isoliquiritin and isoliquiritin. Other components include asparagine, resin and estrogen steroid. Recent work has thrown light on hepatoprotective activity of licorice. It reduces alanine transaminase and aspartate transaminase values in serum. The exact mode of action is not clear but it has been proposed that glycyrrhizin has inhibitory effect on immune mediated cytotoxicity against hepatocytes and on nuclear factor (NF)-kappa B, which activates genes encoding inflammatory cytokines in the liver. Experimental hepatitis and cirrhosis studies on rats found that it can promote the regeneration of liver cells and at the same time inhibit fibrosis. Glycyrrhizin can alleviate histological disorder due to inflammation and restore the liver structure and function from



the damage due to carbon tetrachloride. The effects including: lowering the SGPT, reducing the degeneration and necrosis and recovering the glycogen and RNA of liver cells.

***Berberis aristata (Daruharidra):-*** *Berberis aristata*, commonly known as Indian Barberry is important medicinal plant of Ayurveda and Western herbal medicine. In Ayurveda it is known as Daruharidra. Rasaut is prepared by boiling the bark of the root and of the lower part of the stem in water. The solution is then strained and evaporated till a semi-solid mass is obtained; this is rasaut. The plant is used as hepatic stimulant and chalogouge. Chemically it contains alkaloids (berberine, berbamine and oxycanthine), tannins, gum and resin. It is indicated as one of the best remedies for correcting liver function and promoting the flow of bile, healing leucorrhoea, jaundice, and enlarged spleen, inflammation of the gall-bladder, improving appetite, digestion and assimilation.

***Emblica officinalis (Amalaki):-*** *Emblica officinalis*, commonly known as Indian Gooseberry. It is important ingredient of *Triphala*, famous Ayurvedic remedy for constipation. Fruits are used in medicine. *It* is considered to the best source of Ascorbic acid (vitamin C). In addition, it contains gallic acid, tannic acid, albumin and calcium. The bark contains leukodelphinidin and procyanidin. The fruit contains alkaloids phyllantidine and phyllanthine. Extract was investigated for hepatoprotective activity using carbon

tetrachloride (CCl<sub>4</sub>) induced liver injury in rats. It was observed to inhibit the hepatotoxicity produced by acute and chronic CCl<sub>4</sub> administration as seen from the decreased levels of serum and liver lipid peroxides (LPO), glutamate-pyruvate transaminase (GPT) and alkaline phosphatase (ALP).

***Tinospora cordifolia (Guduchi):-*** *Guduchi promotes regeneration of the liver and protects it from disease.* It is one of the best herbs for the long term health of the liver. The stem contains alkaloidal constituents, including berberine; bitter principles, including columbin, chasmanthin, palmarin and tinosporin, tinosporic acid and tinosporol. Effect of *Tinospora cordifolia* extract on modulation of hepatoprotective and immunostimulatory functions in carbon tetrachloride (CCl<sub>4</sub>) intoxicated mature rats was reported. The treatment with *T. cordifolia* extract (100 mg/kg body weight for 15 days) in CCl<sub>4</sub> intoxicated rats was found to protect the liver, as indicated by enzyme level reduction in serum levels of SGOT, SGPT, ALP, bilirubin. Its tonic properties benefit the entire body, specially the immune system. It is beneficial for people of all constitutional types, making it one of the safest herbs to use for liver diseases.

**SUMMARY:-** The liver, the detoxifying factory in the body, has become an increasingly overworked organ. While those who smoke, abuse alcohol and drugs, and live in severely polluted environments are at greatest risk, we

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# A RICH SOURCE OF NATURAL IMMUNOMODULATOR IN AYURVEDA

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## Abstract:-

Immunomodulators are considered now as one of the most potent tools in the management of health and disease by modern medicine. In fact the role of immunomodulators in modern medicine is yet to be fully appreciated or perceived as our understanding of immune system is changing at a rapid pace. The more recent understanding of neuro endocrine immune axis or the influence of exercise, circadian rhythms, seasonal variations, different psychological states on immune system now unfolding many such issues which are bringing the modern concept closer to Ayurvedic principles of Vyadhi-kshamatva, Ojas and Bala.

**Key words:** Immunomodulator, Ayurveda, Vyadhi-kshamatva, Oja

## Introduction:-

Ayurveda means science of life (Ayu means life; veda means science) with aims of the holistic management of health and disease. It is considered an one of the most ancient medical systems widely practiced in the Indian subcontinent with sound philosophical, and experimental basis. *Charak samhita* and *Sushrut Samhita* are main Ayurvedic classics, which describes over 700 botanicals along with their classification, pharmacological and therapeutic properties. Rasayana therapy is one of the eight branches of Ayurveda and generally means nourishing and rejuvenating drugs with multiple applications for longevity, memory enhancement, immunomodulation and adaptogenic. Many researchers have supposed neuroendocrine immune axis theory to explain Rasayana action.

## Ayurveda and Rasayana

In Ayurvedic practice, the objective of immune enhancement is achieved through the use of the Rasayana and Vajikarana therapy. Vyadhi-kshamatva, Ayurveda has much wider implications than the term "Immunity" used in modern medicine. Chakrapanidatta has interpreted the term Vyadhi-kshamatva as Vyadhi bala Virodhitha i.e., antagonistic to the strength and virulence of the disease and Vyadhyutpada Pratibandhatva i.e., the capacity to inhibit and bind the causes and factors of the disease. *Charaka* has also described Bala as the factor, that destroys the disease causing factors viz., Vyadhi-kshamatva (natural resistance) is not of the same order of constitutions and it varies with individuals. It also depends upon nutritional, environmental and individual factors both physical and mental. The Vyadhikshamatva or Bala is stated to be of three types:

**(1) Sahaja Bala** It is genetic and inborn resistance to disease, which exists since birth. It is said to be increase with the growth of tissues and does not depend upon any other cause (Chakrapani Ca.Su. 11/36).

**(2) Kalaja Bala** - This type of immunity is said to be influenced by seasonal traits and the age of the person.

**(3) Yuktikrit Bala** This type of Sharira Bala refers to modulation of body's resistance against diseases by resort to appropriate *Ojovardhaka* diet, physical exercise, rest, restorative and Rasayana, therapies in keeping with seasonal needs.

## Rasayana Tantra:

Rasayana Tantra, is one of the eight clinical

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specialties of Ayurveda. It refers to nutrition, natural resistance and geriatrics. Apparently Rasayana means improved state of nourishment, which in turn upholds increased immunity and youthfulness. Rasayana can be a drug, diet or even a life style and conduct i.e., Achar, which may be helpful in achieving the above goal. The Rasayanas are supposed to strengthen Oja and Bala i.e., vitality and biostrength with natural resistance against aging and disease. It is stated to contribute to the integrity of body tissues and thus increases longevity. The other benefits of this therapy are the promotion of memory and intelligence, the preservation of youth, luster and complexion and voice. The various measures comprehended by this therapy are termed as **Rasayana**, because they conduce to the replenishment of Rasa and other body measures act by one of the following three ways (M. Paul & Singh R.H., 1979)

(1) **Acting at the level of Rasa:** Thus directly improving the quality of nutrition.

(2) **Acting at the level of Agni:** By improving the digestion and for metabolism of the body and thereby affording better nutrition.

(3) **Acting at the level of srotas:** By improving the micro-circulation, it ensures proper perfusion and nourishment of the tissues. The integrity of channels is equally important for the distribution of *Ojas* to the *Dhatus*, as discussed earlier, which provides body immunity against degeneration and diseases.

Ayurveda describes a number of drugs as Rasayana and *Ojovardhak*, which are claimed to possess immunomodulatory effect. Some of the

Rasayanas which have been subjected to scientific studies and found to possess immunomodulatory effect are Aswagandha (*Withania somnifera*), Shilajatu, Amalaki (*Embllica officinalis*), Tulasi (*Ocimum sanctum*), Guduchi (*Tinospora cordifolia*), Pippali (*Piper longum*) and Punarnava (*Boerahvia diffusa*).

#### **Immune system:-**

The immune system protects from infection with layered defenses of increasing specificity. In simple terms, physical barriers prevent pathogens such as bacteria and viruses from entering the organism. If a pathogen breaches these barriers, the innate immune system provides an immediate, but non-specific response. Innate immune systems are found in all plants and animals. If pathogens successfully evade the innate response, vertebrates possess a second layer of protection, the adaptive immune system, which is activated by the innate response. Here, the immune system adapts its response during an infection to improve its recognition of the pathogen. This improved response is then retained after the pathogen has been eliminated, in the form of an immunological memory, and allows the adaptive immune system to mount faster and stronger attacks each time this pathogen is encountered.

Both innate and adaptive immunity depend on the ability of the immune system to distinguish between self and non-self molecules. In immunology, *self* molecules are those components of an organism's body that can be distinguished from foreign substances by the immune system. Conversely, *non-self* molecules are those

<b>Components of the immune system</b>	
<b>Innate immune system</b>	<b>Adaptive immune system</b>
Response is non-specific Exposure leads to immediate maximal response Cell-mediated and humoral components No immunological memory Found in nearly all forms of life	Pathogen and antigen specific response Lag time between exposure and maximal response Cell-mediated and humoral components Exposure leads to immunological memory Found only in jawed vertebrates



recognized as foreign molecules. One class of non-self molecules are called antigens (short for *antibody generators*) and are defined as substances that bind to specific immune receptors and elicit an immune response.

#### **Immune system mechanism:-**

The immune system plays a vital role in protecting the body against infection and diseases. Various agents like steroids, cytotoxic drugs and natural products of microbial, animal and plant origin help in suppressing the immune system. Medicinal Plants are a rich source of substances that are claimed to induce para immunity, the non-specific immunomodulation granulocytes, macrophages, natural killer cells and complement functions.

#### **Natural immunomodulators:-**

There has been a remarkable advance in the field of basic immunology during last three to four decades. Immunology is thus probably one of the most rapidly developing areas of biomedical research and has great promises with regard to the prevention and treatment of a wide range of disorders (Plaeger, 2003). The use of plant products as immunostimulants or immunosuppressants has a traditional history and the use of natural products with curative and remedial properties is as ancient as human civilization and, for a long time, mineral, plant and animal products were the main sources of drugs (Rates, 2001; De Pasquale, 1984) From the ancient times treatment of many diseases were done by modulating the immune system or function by using **medicinal plants** and their products, this was also the fundamental principle of therapeutic approach (Ismail and Asad, 2009). The present scenario also says that natural compounds can be lead compounds, allowing the design and rational planning of new drugs, biomimetic synthesis development and the discovery of new therapeutic properties not yet attributed to known compounds (Hamburger and Hostettmann, 1991). The main target of the immunomodulatory plant products is primarily their action on the

macrophages which play a key role in the generation of an **immune response**. The therapeutic potential of immunomodulatory agents from plant products and the Ayurvedic concepts of preventive health care have been highlighted by many researchers (Dahanukar *et al.*, 2000). Scientists have described about the clues which can lead to the development of immunostimulatory agents (Dahanukar *et al.*, 2000). In addition, compounds such as muscarine, physostigmine, cannabinoids, yohimbine, forskolin, colchicines and phorbol esters, all obtained from plants, are important tools used in pharmacological, physiological and biochemical studies (Willianson *et al.*, 1996). This is a good sign of advancement and tremendous progress that in recent years, there has been growing interest in alternative therapies and the therapeutic use of natural products, especially those derived from plants (Goldfrank *et al.*, 1982).

#### **Immuno-drug:-**

The immune response requires the timely interplay of multiple cell types within specific microenvironments to maintain immune homeostasis. The selectivity and flexibility that is necessary to regulate cell traffic under homeostatic and diseased conditions is provided by the differential distribution and expression of cytokines and their receptors. As a consequence, cytokines are responsible for the development of phenotypes and are, therefore, logical targets for therapeutic immune modulation. Immuno-drugs include synthetic organics, biologicals, such as cytokines and antibodies, and microbial and botanical natural products, which influence immunoregulatory cascades to bring about their specific stimulatory, suppressive or regulatory effect. Immune suppression has been widely studied for clinical applications.

#### **Immuno-drugs in infection**

Immunomodulators could also have beneficial roles in the prevention and treatment of infectious disease. A diverse array of synthetic, natural and



recombinant compounds are available. Of the synthetic immunomodulators, Levamisol, Isoprinosine, Pentoxifilline and Thalidomide are some of the more significant. Microbial immunomodulators, such as bacille Calmette-Guérin, have been in use for years for non-specific activation of the immune system in some forms of cancer (bladder) and infectious disease. Targeting cytokines is now considered to be one of the logical approaches for the prevention and treatment of infectious disease. Some of these substances, such as granulocyte colony-stimulating factor (G-CSF), interferons, IL-12, various chemokines, synthetic cytosine phosphateguanosine (CpG) oligodeoxynucleotides and glucans are being investigated in preclinical and clinical studies. Interferons are widely used for the treatment of chronic infections, particularly hepatitis B, D and C viruses. Pegylated interferon is a recently developed pharmaceutical preparation that has proven beneficial in non-responsive patients, particularly in those with cirrhosis or hepatitis C virus genotype 1. Other cytokines, such as IL-1, IL-2 and IL-17, have shown potential in augmenting immune responses in various infectious conditions and malignancies. The therapeutic effect of cytokine blockers is also reported in septic shock.

#### **Immunomodulation and inflammation**

Many immune targets have been identified as having potential for the central control of inflammation. Targeting activated T-cell subsets was considered to be one of the most rational approaches and biologicals, such as monoclonal antibodies (mAbs) against CD4, CD5, CD7, CD25 and CD52, were evaluated in patients with autoimmune disorders. Limited clinical benefit and complications, such as the prevalence of opportunistic infection and/or malignancies, were observed and the hope of reprogramming the host immune response remained unfulfilled.

#### **Immunostasis: targets and regulation**

The lymphocytes are divided into distinct phenotype subsets of Th1 (e.g. IFN- $\gamma$ , IL-2 and TNF-

a) and Th2 (e.g. IL-3, IL-4, IL-5, and so on) effector cells. This classification is based on their functional capabilities and cytokine profiles. Th1 cells drive the cellular immunity to fight intracellular organisms, eliminate cancerous cells and stimulate Delayed type hypersensitivity reactions. By contrast, Th2 cells drive humoral immunity and upregulate antibody productions to fight extracellular organisms. T-cell homeostasis or immunostasis requires a fine balance between Th1/Th2 response and such agents could exhibit stimulatory, suppressive or regulatory activity. Currently, much of the literature supports the view that Th1/Th2 is essential to immunostasis and many of the T-cell-directed therapies have provided modest clinical benefits.

#### **Mechanism of immunomodulators:-**

The world we live in is one full of microbes. Our body temperature and wealth of nutrients provide an ideal home for these micro-organisms to thrive. The human immune system has the essential function of protecting the body against the damaging effects of microbial agents that are pathogenic. The system comprises innate (non-specific) and acquired (specific) immunity. Natural killer (NK) cells complement system, macrophages, antigen presenting cells (APCs) and neutrophil make up the innate immune system, and mount an immediate non-specific response to foreign microbial agents. If microbes by-pass this primary defense, the acquired immune response, comprising humoral and cell mediated components, will then act to contain the invaders. The type of antigen (fungi, virus, bacteria, toxin) processed and presented by APCs to the CD4+ T cell determines the type of cytokines secreted, which in turn, determine the differentiation of helper T (TH) cells into TH1 or TH2 cells, and B-cells to give immunoglobulin subtypes. TH1 response involves the activation of macrophages, which contain and destroy mycobacteria and fungal pathogens. TH1 pathway also activates cell-mediated immunity. TH2 cells, on the other hand, effect



immunoglobulin differentiation and antibody secretion, and therefore mediate humoral immunity. CD8+ cytotoxic T cells induce apoptosis in antigen-laden cells.

Apart from these natural mechanisms, there are additional factors that stimulate and suppress host immunity. Immunostimulants enhance the overall immunity of the host, and present a non-specific immune response against the microbial pathogens. They also work to heighten humoral and cellular immune responses, by either enhancing cytokine secretion, or by directly stimulating B- or T-lymphocytes. The use of plant products as immunostimulants has a traditional history. However, the isolation of the active principals involved did not gain momentum till the 19<sup>th</sup> century. A study in 1990 showed that 64% of the world's population use botanic drugs to combat health problems. Currently, it is estimated that almost 50% of the synthetic medicines are derived from, or patterned after, phytochemicals. Plants synthesize chemicals as part of their defense against pathogens. Many such compounds occur in nature as anti-feedant and anti-infectant chemicals, and are found effective against microbes. Flavonoids and hydroxylated phenols, for example, are naturally synthesized by plants in response to infection. Flavones and flavanones, being bitter, also have natural anti-feedant effects. Alkaloids are the most common plant metabolites. An alkaloid derivative, nicotine, for example, has been shown to have insecticidal activities. Quinine, another alkaloid isolated from the bark of the *Cinchona* tree, was the first effective anti-malarial drug.

Some of these herbal drugs stimulate both humoral and cell mediated immunity while others activate only the cellular components of the immune system, i.e. phagocytic function without interfering with the cell mediated or humoral immunity. Adaptogens are pharmacological agents that improve a non-specific increase of resistance of the organism to aversive stimuli (neuronal,

endocrinal or visceral) that alters internal homeostasis. The plants that possess immunomodulatory property are known to enhance the adaptability of the organisms including human beings. Herbs and formulations containing active phyto-constituents are used for treating a variety of stress and immunological related disorders are called as Rasayanas in Ayurveda. The popularly used herbs as Rasayanas include *Withania somnifera*, *Oscimum sanctum*, *Asparagus recemosus*, *Picrorhiza Kurroa*, *Tinospora cordifolia* and *Rubia cordifolia*.

#### **Immunomodulatory activity of some crude plant:- *Glycyrrhiza glabra***

The root *Glycyrrhiza glabra*, commonly known as liquorice, has been used since ancient times in Indian, Chinese, Egyptian, Greek and Roman medicine. It is prominent in Ayurveda as Rasayana with cytoprotective and demulcent effects and is a popular home remedy for minor throat infections. Biologically active substances in liquorice roots include glycyrrhizic acid (GL) and its aglycone (GA), phenolic compounds, oligosaccharides and polysaccharides, lipids, sterine, and so on. Recently, GL and GA were shown to exert a hepato protective effect via modulation of immune-mediated hepatocyte toxicity, NF- $\kappa$ B and IL-10, which explains how their administration resulted in a down regulation of inflammation in the liver. GL has been reported to increase the resistance to *Candida albicans* and herpes simplex virus-1 infection in animal models. Many researchers have suggested that effects on the production of IFN and Th2 cytokines might be one of the mechanisms involved in the anti infective process. Recently, glycyrrhizin was found to be active in inhibiting replication of the severe acute respiratory syndrome (SARS)-associated virus (FFM-1 and FFM-2). In the study, GA was found more effective compared with ribavirin, 6-azauridine, pyrazofurin or mycophenolic acid. GL is also reported to have modulatory effects on the complement system.



Reports indicate that GL blocks C5 or a more distal stage of the complement cascade, suggesting that it might have a role in preventing tissue injury not only in chronic hepatitis but also in autoimmune and inflammatory diseases. Many researchers have reported response-modifying activity in flavonoids and chalcones isolated from the root extract. Modulation of the Bcl-2/Bax family of apoptotic regulatory factors, by components of the root, has been suggested as a possible mechanism for its reported cytoprotective activity. These activities include antioxidant, chemo preventive and antimicrobial activities. Chemical modification of GL and GA has been tried and significant improvement in anti-inflammatory, anti allergic, and antiulcer activities was observed. These observations indicate immune-modulating and biological response modifier activities associated with GL.

#### ***Withania somnifera***

*Withania somnifera* (WS) known as ashwagandha, Indian ginseng and winter cherry, is also classified as Rasayana in Ayurveda. The major biochemical constituents of WS root are steroidal alkaloids and steroidal lactones known as withanolides. Much of WS pharmacological activity has been attributed to withaferin A and withanolide D. WS is reported to have immunomodulatory, antitumour, cytoprotective and antioxidant properties. All these activities are thought to be involved in the overall immunoregulatory properties of WS. Several preclinical studies have examined the cytoprotective potential of WS. In one study, WS exhibited myeloprotection in tumour model without compromising antitumour efficacy of cyclophosphamide, azathioprin or prednisolone. In another instance, cytoprotection against experimental skin cancer was observed, where reduced levels of glutathione, superoxide dismutase, catalase and glutathione peroxidase returned to normal following WS administration. WS exhibited modulatory effects on cytotoxic lymphocyte production leading to reduced tumour

growth. Withaferin A was found to be better than doxorubicin in inhibiting growth of breast and colon cancer cell lines. A recent study suggested that the increased production of inducible nitric oxide synthase was one of the possible mechanisms for the increased cytotoxic effect of macrophages exposed to WS extracts. Moreover, Withaferin A in combination with radiotherapy increased the response to radio-resistant tumours. WS treatment in normal and tumour-bearing mice showed a positive influence on NK cell activity resulting in enhanced cell killing. Many studies, including our own, have demonstrated the immunomodulatory potential of WS, resulting in increased haemolytic titres, inhibition of delayed type sensitivities and an increase in phagocytic activity of macrophages. We also observed that animals receiving WS showed immunoprotection to *Bordetella pertussis* infection, as evident by increased antibody titres and higher survival percentage. In a recent study, Immun-21, a polyherbal formulation containing WS, exhibited immunomodulatory activity leading to modest clinical benefits in groups of HIV patients. These observations suggest that WS could be used as an immunological adjuvant with multiple therapeutic benefits in cancer, infection and AIDS. In a comparative pharmacological investigation of WS and ginseng, the WS-treated group showed better anabolic and antistress activity than ginseng with additional anti-inflammatory activity. WS has also been reported to be effective on acute-phase reactants, nitric oxide synthase and glycosaminoglycan synthesis in addition to immunoregulation. Clinical studies on WS have shown moderate analgesic, anti-inflammatory and disease-modifying activity in arthritis patients.

#### ***Tinospora cordifolia***

Another Ayurvedic Rasayana known for immunomodulatory and cytoprotective activities is *Tinospora cordifolia*(TC), the chemistry of which has been studied extensively and its chemical constituents can be broadly divided into alkaloids, diterpenoids, steroids, flavonoids and lignans.



Reviews have appeared on quaternary alkaloids and biotherapeutic diterpene glucosides of TC: syringin, cordiol, cordioside and coriofolioside were found to possess immunopotentiating activity. The active principles of Guduci (*Tinospora cordifolia*), an important Rasayana drug, have been found to possess anticomplementary and immunostimulating activities. Previous studies on the extracts of Guduci reported antidiabetic, anti-inflammatory and hepatoprotective activities. Syringin (TC-4) inhibited the invitro immunohaemolysis of antibody coated erythrocytes. The reduced immunohaemolysis was found to be due to inhibition of the C3-convertase of the classical complement pathway. The compounds gave rise to significant increase in IgG antibodies in the serum. Humoral and cell mediated immunity were also dose dependently enhanced. Macrophase activation was reported for cordioside (TC-2), cordiofolioside A (TC-5) and Cordiol (TC-7). These compounds induced significant increase in phagocytic activity by activation of the peritoneal macrophases (Kapil A. and Sharma S., 1997). It is important recall here that macrophases play an important role in nonspecific and specific immune responses. In innate immunity, the phagocytosis of foreign bodies by macrophases and other phagocytes contributes to regulation of both humoral and cellular immune responses.

Macrophases serve as effector cells to provide immune surveillance against tumour cells.

#### **Aloe Vera:-**

The antimicrobial activity of aloe extracts was postulated as early as 1939 [14]. Isolates from *Aloe vera* were shown to inhibit microbes like *Staphylococcus spp* and *Candida spp*. Clinical studies have revealed several immunomodulatory properties. Stronger leukocyte infiltration was seen in injured areas where aloe extracts were used in treatment, and surface wound recovery was stimulated by polyuronic acids. Acemannan, the major fraction of aloe polysaccharides, has been extensively studied for immunomodulatory effects.

Reports showed that these (1,4)-linked acetylated mannans are able to increase phagocytic activities.

#### **Ginger officinale:-**

Ginger is a domestic remedy also known for its antiinfectant effects. Essential oil constituents from rhizomes of *Z. officinale* were found to decrease growth rate of a variety of bacteria and fungi, including *Staphylococcus* and *Candida* [64]. The most effective antimicrobial constituent was found to be citral. Curcumene, a sesquiterpene, from ginger oil was found to inhibit *Rhizoctonia solani*. In another advance, it was shown that ethanol extracts of *Z. officinale* were able to inhibit growth of both gram-negative and gram-positive bacteria, although the inhibitory effect was more pronounced for gram-positive bacteria. Ethanol soluble extracts from the rhizomes of *Z. officinale* were tested for their action on cytokines and found to promote the secretion of IL-1 and IL-6 in a time- and dose-dependent manner. Early isolation experiments showed the presence of highly cytotoxic compounds (diacetylafzelin, diferuloylmethane, feruloyl-p-coumaroylmethane and di-pcoumaroylmethane) from the species of the family *Zingiberaceae*. Pure *Zingiberis* isolates have been structurally characterised, but their antimicrobial effects were not studied.

#### **Conclusion**

Analysis of current immunomodulating strategies indicates that monovalent approaches in isolation are unlikely to restore immunostasis or attain status of complete therapy. This complements emerging systems biology approaches, which holistically monitor operating biological processes as an integrated system. It is likely that multiple immune-modulating strategies will be necessary to achieve clinical success owing to complex interplay between pathways. We need designer drugs, which involve safer, curative and synergistic combinations.

Bioprospecting will have a major role in identifying such combinations. The botanical immunodrugs discussed here have such potential



because they offer additional therapeutic benefits to address associated conditions such as infection, inflammation and cancer. Botanical extracts provide cytoprotective, anticancer, anti-inflammatory and anti-infective activities in addition to immunoregulatory activity. For example, crude extract of TC has immunostimulant, anticancer and cytoprotective activities, where cytoprotective activities are attributed to polysaccharides and immunostimulant activity is attributed to diterpenoids.

Immunomodulation using **medicinal plants** can provide an alternative to conventional chemotherapy for a variety of diseases, especially when host defense mechanism has to be impaired under the conditions of impaired **immune responses** when a selective immunosuppression is desired in situation like autoimmune disorders (Ganju *et al.*, 2003). But more importantly there is a need to evaluate several medicinal plants for their immunomodulatory property which are still unrevealed. With this future suggestions and progress along with simultaneous clinical trials and standardization should be the primary and important steps in pharmacognosy. Different tests should also be performed for the evaluation of immunomodulators for instances immunosuppressant activity, immunostimulatory activity, immunoadjuvant activity and effector arm of the **immune response** (Agarwal and Singh, 1999). There is also a need to develop and screen plant extracts libraries along with semi synthetic modifications existing hits to get better lead compounds from the natural products (Bhutani and Gohil, 2010).

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## विश्व आयुर्वेद परिषद, रूडकी, हरिद्वार

प्रत्येक वर्ष की भांति विश्व आयुर्वेद परिषद, रूडकी के तत्वावधान में शरद पूर्णिमा के दिन दम की दवा (खीर) का निःशुल्क शिविर लगाकर वितरण किया गया। यह दवा पीनस, कास, श्वास आदि रोगों में अत्यन्त लाभकारी सिद्ध है। इस अवसर पर डॉ० आशुतोष सिंह, माननीय रामेश्वर जी, डॉ० शशि मोहन गुप्ता, डॉ० विनोद गुप्ता, डॉ० सुधीर गुप्ता, डॉ० आर०सी० मित्तल, डॉ० अशोक पुण्डरी, डॉ० आशुतोष सिंह की विशेष उपस्थिति रही। डॉ० बी०एल० अग्रवाल ने अध्यक्षता तथा वैद्य टेकवल्लभ ने कार्यक्रम का संयोजन किया। अगले शिविर के लिए कार्तिक पूर्णिमा का दिन सुनिश्चित किया गया।

## वाराणसी में

## विश्वमंगल दिवस का आयोजन

वाराणसी में 15 जनवरी को मकर संक्रान्ति पर्व पर विश्व मांगल्य दिवस अत्यन्त धूमधाम से कला सिद्ध मण्डपम, अकथा में मनाया गया। कार्यक्रम के मुख्य वक्ता डॉ० बृज कुमार द्विवेदी, विभागाध्यक्ष शरीर पर प्रभाव, उससे होने वाली व्याधियाँ बचाव, आहार-विहार विषय पर विशद चर्चा की। अध्यक्षता डॉ० राजीव शुक्ल के संचालन डॉ० अखिलेश चन्द्र पाण्डेय तथा धन्यवाद ज्ञापन डॉ० अश्विनी गुप्ता ने किया। संयोजन वैद्य उमेश दत्त पाठक, डॉ० हरिओम पाण्डेय एवं डॉ० के०के० द्विवेदी ने किया। मुख्य रूप से डॉ० मंजू गुप्ता, डॉ० सुभाष श्रीवास्तव, डॉ० विरेन्द्र सिंह, डॉ० विजय राय, डॉ० राकेश मोहन, डॉ० रमेश गुप्ता ने सहयोग किया। प्रो० जैमिनी पाण्डेय, प्रो० अमरनाथ एवं डॉ० उमा शंकर पाण्डेय पूर्व क्षेत्रीय आ० एवं यू० अधिकारी ने विशिष्ट अतिथि के रूप में अपने विचार रखे।



# SHALLAKI : AN UNIQUE AYURVEDIC ANTI-RHEUMATIC DRUG

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**Abstract:-** Shallaki (*Boswellia serrata*) is a drug of choice for rheumatic conditions. Now a day's most of the persons are suffering from musculoskeletal joint pain. Arthritis is a medical condition affecting a joint or joints, causing pain, swelling and stiffness. Shallaki (salai guggal) is a common drug of choice in osteoarthritis and rheumatoid arthritis so it works the best in a condition where these two occurs together. Shallaki is an **Herbal Analgesic** and is also helpful in muscular spasm and other muscular pains. Consumption of *Boswellia* leads to reduction in joint swelling, increased mobility, and improved grip strength due to its anti-inflammatory, anti-atherosclerotic and anti-arthritic activities.

**Key words-** Shallaki, salai guggal, Arthritis, Analgesic, Anti-inflammatory.

**Introduction-** *Boswellia serrata* is reported to be effective as anti-inflammatory, immunomodulator, anti-tumor and anti-arthritic agent. Today its major use is as an anti-inflammatory agent for the treatment of Rheumatoid-arthritis, juvenile rheumatoid-arthritis, low back pain, myositis, fibrositis, osteoarthritis, cervical spondylosis, ankylosing spondylitis.

**Methods and materials-** Literary review is on Shallaki, a unique Ayurvedic anti-arthritic and safe NSAIDS alternative with its various mode of action in case of joint pain with short description of

arthritis.

**Shallaki :-**

**Latin name-** *Boswellia serrata* Roxb., **Family-** Burseraceae, **English name-** Indian olibanum, Benzoin.

**Description:** It is a medium sized tree with ash coloured pappery bark. Leaves are like neem plant and have small white flowers. On injury it exudates oleo-gum resin known as Shalai Guggal or Indian Frankincense. It is an plant that contains anti-inflammatory terpenoids called Boswellic acids.

## Historical Aspects

Shallaki has not been mentioned in the vedic literatures but it has been explained in Charaka samhita, Sushruta samhita & Other samhitas and Nighantus of Ayurveda.

- Acharya Charak has advised its use in the treatment of Shvasa, Kasa, Hikka (Ch.Chi.- 17/117), Vatavyadhi (Bala Taila Ch. Chi. 28/156) and Gulma Ashmari (ch.chi. 26/64-65). It is also used in Dhoomvarti (Ch. Su. 5/20-24).
- Acharya Sushruta has prescribed it in the treatment of Pittabhisya (su.ut.10/4), Pakvatisara (su.ut. 40/19), Raktatisara (su. ut. 40/22) and Shvasa Hikka (su. ut. 51/12).
- Acharya Bhela has recommended it in the treatment of Vata-vyadhi (Rasna Taila and Mulaka

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Taila Bh. Chi 26).

- Acharya Harita has also used it in the treatment of Vatavyadhi (kalka, kwatha & Mahabala taila Ha. Sam. 3<sup>rd</sup> sthana/chapter-23).
- Shallaki has been described in the Chakradatta, particularly in the treatment of Vata vyadhi (Prasarani taila, kalka paka and Maha sugandha Taila Vata vyadhi chikitsa)

**Gana (class):**

- Purish viranjaniya (ch. Su 4/15)
- Kashaya skandha (ch. Vi. 8/144)
- Shiro virechana ( ch. Vi. 8/151)
- Varunadi (su. Su.38/8)
- Rodhradi (su. Su. 38/14)
- Eladi (su. Su. 38/13)
- Kashaya skandha (su. Su. 42/13)
- Niryasa (exudate material) of Sallaki is called Kunduru.

**Types of Kunduru:**

**According to its shape and colour kunduru has been divided into 5 types, in the Unani system of medicine:**

- Nara Kunduru
- Mada kunduru
- Gola (Round)
- Kishor kunduru
- Dukraka kunduru

**Properties of Kunduru (Boswellia gum):**

**The properties of kunduru (Indian olibanum) can be broadly discussed with under three groups;**

- Physical properties
- Chemical properties

- Pharmacological and therapeutic properties

**Physical properties:**

**Colour:-** The fresh exudation of boswellia serrata resembled Canada balsam in colour and consistency. It hardens slowly, retaining its golden colour and transparency.

**Odour:-** The odour is that of olibanum, but fainter and more tevebin thinate. It burns readily and diffuses an agreeable odour (Dymock, warden and Hooper, I/303)

**Touch:-** Smooth,

**Taste:-** The taste of the kunduru is mainly bitter and astringent.

**Pharmacological and therapeutic properties:**

**Rasa-** Madhur, Katu, Tikta

**Veerya-** Sheeta

**Guna-** Tikhsna

**Vipaka-** Katu

**Karma-** Vata and Kapha Rogahara, Svedajanana, Tvachya, pradara, Jvara, Grahapida, Malinata and mukharoga nas haka (ya. Tri. Acharya).

-Rakta shodhaka, Tvachya, Varnaropana, Jvara Mukharoga - Vataroga kapharoga Rakta vikara Grinapida Alakshmi Raktatisara and Jantu nashaka (Arya bhishaka)

**Dosha prabhava :** Vata kaphaghna.

**Bahya karma :** Shothahara, Vedanashtapana, Durgandhanashana, Jantughna, Varna shodhana, Varnaropana and Chakshushya.

**Abhyantara karma:** It acts as Dipana, Pachana, Grahi, Purishaviranjaniya, Raktastambhana. Kapehaniss arak. Indian olibanum is mainly used in treatment of rheumatoid arthritis. It is known to regain integrity of vessels in joints from damage or



spasm. It is also used in preparation of licence and as a fixative in perfumes.

**Synonymes:**

**Gajabhakshya** (It is eaten by elephants),

**Rasa** (Because of palatable taste),

**Suvaha** (Fragrance is spread all over),

**Kunduraki**,

**Surabhi** (Its aroma is very beautiful),

**Sallaki**.

**Reviews on "INDIAN MEDICINAL PLANTS"  
(Volume-4):-**

**Ethno botanical Studies**

· Parts of the tree are used in epilepsy & as antidote to snake bite; as blood purifier, expectorant, stimulant, and diuretic, ant dysenteric, in cough, leucorrhoea and fever and urinary troubles.

· The leaves are used as anti-inflammatory.

**Arthritis:-** Arthritis is a medical condition affecting a joint or joints, causing pain, swelling and stiffness. It refers to the degeneration or wearing out of a joint. It is a common misconception that arthritis is just an old-person's disease. Arthritis may affect not only the joints but also other parts of the body, including important supporting structures such as muscles, tendons, and ligaments, as well as some internal organs.

**Symptoms:-**

1. Pain, stiffness or tenderness in a joint which is aggravated by movement or activity, such as walking, getting up from a chair, writing, typing, holding an object, throwing a ball, turning a key.
2. Inflammation and deformity of a joint.

3. Loss of flexibility of a particular joint.

**Various Types of Arthritis:-**

**1) Osteoarthritis** (degenerative joint disease)- most common form of arthritis is a result of trauma, infection of the joint, or age factor. Osteoarthritis (O.A) usually affects people after middle age and characterized by gradual loss of cartilage of the joints. **2) Rheumatoid arthritis** is an autoimmune disease that causes chronic inflammation of the joints, the tissue around the joints, as well as other organs in the body. **3) Gouty arthritis** is caused by deposition of uric acid crystals in the joint, causing inflammation. It is characterized by unusually elevated levels of uric acid in the blood, chronic attacks of joint inflammation (arthritis), and deposits of hard crystals of uric acid in and around the joints. **4) Ankylosing spondylitis** is a rheumatic disease that causes arthritis of the spine and sacroiliac joints.

**Boswellia and Arthritis:-**

**MODE OF ACTION:** - The crude methanolic extract and the isolated pure compound are capable of carrying out a natural anti-inflammatory activity at sites where chronic inflammation is present by switching off the pro-inflammatory cytokines and mediators, which initiate the process.

-Boswellic acids inhibit the leukotriene synthesis via 5- lipoxygenase and the cyclooxygenase activities. Boswellic acids did not impair the peroxidation of arachidonic acid by iron and ascorbate. It **soothes the joints** and also helps treating levels of synovial fluid making the entire structure lubricated and easy to rotate or to move. It has **anti-inflammatory, analgesic activity with improvement of joint**



*movement* and without disturbing the gastrointestinal tract. Unlike nonsteroidal anti-inflammatory drugs (NSAID) such as aspirin or ibuprofen, Boswellia extract proved to have zero ulcerogenic activity.

**Conclusion:-** According to all researches and literary review records we have come to conclusion that Shallaki is a drug of choice in musculoskeletal joint pains, by reduction in joint swelling, increased flexibility, due to its anti-inflammatory, anti-arthritis, analgesic and other properties. Shallaki is also a very safe Ayurvedic NSAIDs. According to Ayurveda pain is due to Vata and it pacifies Vata by its Usna veerya and Madhur rasa. It do Pachan of Aam which is main cause of Arthritis by its Tikta rasa. Supplementing Boswellia serrata with non-steroidal anti-inflammatory drugs (NSAIDs) helps to reduce the dosage of the NSAIDs. Boswellia is now an approved herbal medicine in India to use treating various musculoskeletal disorders such as osteoarthritis, rheumatoid arthritis, soft tissue rheumatism, low back pain, myositis and fibrositis.

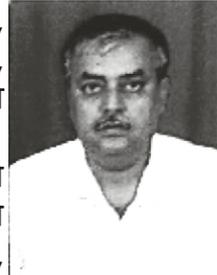
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- 7) Bhav Prakash Nighantu by Dr K.C. Chunekar, Chaukhamba Sanskrita Sansthan Varanasi.
- 8) www.allayurveda.com
- 9) Naam Roop Gyan by Dr Priyavratna Sharma, Chaukhamba Bharti Academy, Varanasi.

### शोक समाचार

प्रो० श्यामापद भट्टाचार्यजी, सदस्य राष्ट्रीय कार्यकारिणी, विश्व आयुर्वेद परिषद का असामयिक निधन 21 दिसम्बर, 2012 को गुवाहाटी में हो गया। प्रो० भट्टाचार्यजी प्रथम निदेशक, आयुष विभाग,



परिवार एवं कल्याण मन्त्रालय, आसाम; सदस्य केन्द्रीय भारतीय चिकित्सा परिषद, नई दिल्ली, विभागाध्यक्ष मौलिक सिद्धान्त विभाग, गर्वमेन्ट आयुर्वेदिक कालेज, गुवाहाटी; प्रथम निदेशक, नार्थ ईस्ट इन्सीट्यूट ऑफ आयुर्वेद एवं होम्योपैथी, भारत सरकार; पूर्व प्रथम नोडल आफिसर, स्टेट मेडिसीनल प्लान्ट बोर्ड, आसाम पद के अलावा अन्य विभिन्न पदों पर रहें। उनका जन्म 21.11.1959 को आसाम में हुआ था। पूरे परिषद् परिवार की तरफ से उनको शत-शत नमन। प्रो० सत्येन्द्र प्रसाद मिश्र, कुलपति, उत्तराखण्ड आयुर्वेद विश्वविद्यालय, देहरादून ने अपनी श्रद्धांजलि अर्पित की है।



## तमक श्वास (BRONCHIAL ASTHMA) - नैदानिक एवं चिकित्सीय विवेचन

• डा० विवेक अग्रवाल

### सारांश

श्वास रोग प्राणवह स्रोतस (Respiratory Tract) की प्रमुख व्याधि है। इस रोग में प्राणवह स्रोतस में अवरोध होने से नियमित रूप से होने वाली श्वास-प्रश्वास (Inspiration & Expiration) में बाधा उत्पन्न होने से रोगी को श्वासोच्छ्वास में कष्ट की अनुभूति होती है। श्वास रोग के पांच भेद बताये गए हैं, उसमें से एक तमक श्वास है जो कि कफ प्रधान होता है। आधुनिक रोग विज्ञान की दृष्टि से तमक श्वास Bronchial Asthma से अत्यन्त निकट का साम्य रखता है क्योंकि इसमें भी तमक श्वास के समान ही लक्षणों की उपलब्धि होती है, इसके अतिरिक्त चिकित्सादृष्ट्या दोनों के उपशय और अनुपशय रूप आहार विहार भी समान है। विश्व स्वास्थ्य संगठन के अनुसार वर्ष 2020 तक अस्थमा chronic obstructive pulmonary disease के साथ मिलकर तीसरा सबसे ज्यादा मृत्यु कारक कारण होगा।

संक्षिप्त शब्द— श्वास रोग, Bronchial Asthma,

तमक श्वास।

### प्रस्तावना

आचार्य चरक ने श्वास को गम्भीर, प्राणहर व पित्तस्थान समुद्भव कहा है। साधारण बोलचाल में श्वास को 'दमा' कहते हैं। विश्व में 180,000 व्यक्ति हर साल अस्थमा से मृत्यु को प्राप्त होते हैं, भारत में लगभग 15-20 मिलियन अस्थमा के रोगी हैं। श्वास रोग मुख्यतः वात एवं कफ की विकृति से उत्पन्न होता है।

श्वास रोग का सामान्य निदान

1. वातप्रकोपक निदान— धूम, धूल, शीतस्थान निवास, अतिव्यायाम, वेगावरोधन, शीतल जलपान, विषमाशन आदि।
2. कफप्रकोपक निदान— शीतस्थान निवास, माश, तिल तैल, पिष्ट, विदाही अन्न, गुरु भोजन, दधि सेवन, आमक्षीर आदि आहारज कफ प्रकोपक निदान है।
3. अन्य कारण— कण्ठ एवं उर प्रदेश में आघात एवं विबंध ज्वर, प्रतिष्याय, रक्तपित्त, पाण्डु रोग से, वमन के अतियोग से।

तमक श्वास (Bronchial Asthma)

तालिका संख्या - 1

क्रम संख्या	श्वास रोग के भेद	दोषानुसार स्थिति	Modern Correlation
1	महाश्वास	वात प्रधान	Biot's breathing
2	उर्ध्वश्वास	वात प्रधान	Stertorous breathing
3	छिन्न श्वास	कफ+वात प्रधान	Cheyn stroke breathing
4	तमक श्वास	कफ प्रधान	Bronchial Asthma
5	क्षुद्र श्वास	वात प्रधान	Exertional dyspnoea

■ प्रोफेसर, रोग एवं निदान विभाग, एम.एस.एम.इन्स्टी. ऑफ आयुर्वेदा, बी.पी.एस.महिला विश्वविद्यालय, सोनीपत, हरियाणा



## सामान्य परिचय

- श्वास रोग के पांचों भेदों में अधिकांशतः तमक श्वास के रोगी ही मिलते हैं।
- तमक श्वास एक सामान्य व्याधि है जो संसार भर में फैला हुआ रोग है। संयुक्त राष्ट्र में 4% जनसंख्या इस बीमारी से प्रभावित है।
- यह निश्चित और अनिश्चित अन्तराल से होने वाली व्याधि है।
- अस्थमा का दौरा थोड़े समय के लिए आता है, कुछ मिनटों से घंटों तक हो सकता है।
- अस्थमा के रोगियों में परिवार में रोग से ग्रसित होने की संभावना अधिक होती है।
- रात को सोने में कठिनाई का अनुभव होता है।
- तमक श्वास वात एवं कफ दोषों के विकृत होने से होता है।
- यह श्वास के बार-2 फूलने के द्वारा परिलक्षित होता है। श्वास नलिकाओं के संकुचित होने से वक्ष प्रदेश में भारीपन का अनुभव होता है।

## तमक श्वास का निदान

1. रूक्ष, शीत पदार्थों का सेवन जैसे शीतल पेय पदार्थ, चावल, दधि, मक्का, उड़द आदि।
2. शीत ऋतु, वर्षा ऋतु जन्म प्रभाव
3. प्रातःकालादि कारणों से कफाधिक्य हो श्वास मार्गावरोध।
4. अस्थमा के रोग में आभ्यंतर कारण जैसे— धूल, मिट्टी, पशु-पक्षियों के एलर्जी कीटाणु से तथा बाहरी कारण जैसे— विषैली गैसों  $SO_2$ ,  $NO_2$ ,  $O_3$  फूलों के पराग कणों से रोग के बढ़ने की सम्भावना अधिक होती है।

## Various allergens for atopic asthma;-

### Indoor

- House dust mite

- Pet derived allergens
- Insect web
- Cockroach antigens
- Fungal spores
- Pollutants

### Outdoor

- Air borne pollutants
- Grass or flower pollen
- Animal dander's and feathers

### सम्प्राप्ति चक्र



### तमक श्वास के लक्षण

1. प्राणवह स्रोतस में जमे हुए कफ को निकालने के लिए बार-2 कास का वेग।
2. श्वास कष्ट होने से तमः प्रवेश की अनुभूति।
3. कास के साथ कफ के निकल जाने से रोगी को लाभ मिलता है।



#### 4. स्वरभेद

5. रोगी को बोलने में कष्ट होता है।
6. रोगी का लेटने पर तकलीफ बढ़ जाती है। लेटने पर प्रतिलोम हुई वायु पार्श्व में रुक जाती है एवं पार्श्व को जकड़ देती है। इस कारण रोगी को निद्रा बहुत ही कष्ट से आती है।
7. बैठने पर रोगी को आराम मिलता है।
8. रोगी को उष्ण सेक तथा उष्ण पदार्थों के सेवन से आराम मिलता है।
9. श्वास कष्ट के कारण रोगी के माथे पर पसीने की बूंदें दिखती हैं। तथा रोगी पसीने से तर हो जाता है।

#### Sign and Symptom of Bronchial Asthma

- Episodic and chronic wheezing
- Dyspnoea
- Cough
- Tightness in the chest

#### तमक श्वास के भेदः—

1. प्रतमक श्वास (Bronchial Asthma with super imposed infection)
2. संतमक श्वास (Tropical Eosinophilia)  
उदावर्त रजोऽजीर्णक्लिन्नकाया निरोधजः।  
तमसा वर्धतेऽत्यर्थं शीतैश्चाशु प्रशाम्यति।  
मज्जतस्तमसीवास्थ विद्यात्संतमकं तु तम्।।  
ज्वरमूर्च्छापरीतस्य विद्यात्प्रतमकं तु तम्।।  
(च० चि० 17 / 63-64)

#### संतमक श्वासः—

उदावर्त, रज, अजीर्ण, क्लिन्नकाय (शरीर की आर्द्रता या वृद्धत्व) तथा वेगविधारण से उत्पन्न होता है। श्वास अंधकार या मानसिक दोशों से बढ़े तथा शीतोपचार से शान्त होता है। रोगी अपने को अंधकार में डूबता हुआ समझता है उसे संतमक श्वास कहते हैं।

#### प्रतमक श्वासः—

संतमक श्वास के लक्षणों के साथ ज्वर व मूर्च्छा का भी अनुबन्ध हो जाए तो प्रतमक श्वास कहते हैं।

#### तमक श्वास के विशिष्ट लक्षणः—

1. कास
2. श्वास लेने में कठिनाई
3. कपोत के उरस सम गोल वक्ष (Barrel Shaped Chest)
4. फुफ्फुसों में शुष्क एवं आद्रध्वनि (Rales & Rhonchii present on auscultation)
5. कपोतवत् कूजन (घुर्घुराहट)

#### तमक श्वास के रोगी का परीक्षण—

- रोगी स्पष्ट उच्चारण में असमर्थ।
- स्पर्शन करने पर नाड़ी गति तीव्र।
- श्वसन गति तीव्र।
- उच्च रक्तचाप।
- शरीर नीला पड़ जाना।
- Stethoscope से सुनने पर सीटी की ध्वनि (Rhonchi or wheezing sound) का सुनाई देना।

#### प्रयोगशालीय परीक्षण—

1. खून की जांच Eosinophilia (Raised no. of eosinophil)
2. सीरम IgE निरीक्षण — Raised IgE level
3. छाती का एक्स-रे
4. फुफ्फुस कर्मशीलता जांच— Peak expiratory flow rate & less than 60 % in severe condition.

#### चिकित्सा—

1. निदान परिवर्जन
2. श्वास से पीड़ित व्यक्ति को सर्वप्रथम सैंधव



लवण व तिल तैल का वक्ष प्रदेश पर मर्दन करने के बाद स्निग्ध द्रव्यों से युक्त नाड़ी स्वेद, प्रस्तर स्वेद या संकर स्वेद करना चाहिए।

संशोधन चिकित्सा—

1. स्नेहन – स्वेदन
2. वमन
3. विरेचन

संशमन चिकित्सा—

1. एलादि वटी
2. खदिरादि वटी
3. श्वासकुठार रस
4. महालक्ष्मी विलास रस
5. त्रिकटु चूर्ण
6. लवंगादि वटी
7. श्रृग्यादि चूर्ण
8. दशमूल क्वाथ
9. हरिद्रा खण्ड
10. च्यवनप्राश रसायन

उपयोगी औषधीय पौधे

1. कण्टकारी (*Solanum xanthocarpum*)
2. वासा (*Adhatoda vasica*)
3. शुण्ठी (*Zingiber officinalis*)
4. पुष्करमूल (*Inula racemosa*)

श्वास रोग में योग चिकित्सा—

1. श्वासन
2. प्राणायाम में कुम्भक एवं रेचक का अभ्यास

पथ्यापथ्य

पथ्य आहार—

पुराना साठी चावल, पुराना घृत, शहद, बथुआ, लहसुन, हरड, परवल आदि का प्रयोग, गोमूत्र, गरम जल, देशी घी भोजन के बाद, सैंधव लवण का प्रयोग साधारण नमक के स्थान पर, बकरी का दूध सेवन एवं जांगल पशु-पक्षियों का मांस रस।

पथ्य विहार—

दिवास्वपन, स्वेदन, विरेचन, सोने और खाने के बीच में कुछ समय अन्तराल रखें एवं भाप का सेवन।

अपथ्य आहार—

भैंस का दूध, घृत, दही, कन्द के साग, सरसों,

मछली, शीतल जल पान, उड़द, मक्का, बेसन, अरबी, आलू आदि कफकारक द्रव्य एवं खाने के बाद जल पान करना।

अपथ्य विहार—

शीत, ओस, वर्षा, मैथुन, भारी वस्तुओं को उठाना, अधिक चलना, वेगों को धारण करना, व्यायाम (शारीरिक), अत्यधिक धूल, प्रदूषित करने वाले परागकण, धूप, धूम्रपान, नमीयुक्त वातावरण में विहार एवं अतिसुगंधित द्रव्यों का सम्पर्क।

उपसंहार

आयुर्वेद के नियमों का पूरी तरह से अनुसरण करने वाले काल में लोगो का जीवनकाल लम्बा एवं रोगरहित था लेकिन वर्तमान समय में इसकी अवहेलना के कारण समाज में नाना प्रकार की व्याधियां व्याप्त हो चुकी है। वर्ष 1998 में विश्व स्वास्थ्य संगठन और अन्तराष्ट्रीय अस्थमा परिषद के द्वारा प्रकाशित लेख में अस्थमा (तमक श्वास) में आयुर्वेदिक चिकित्सा एवं औषधियों का उल्लेख किया है। साध्यासाध्यता के अनुसार तमक श्वास याप्य रोग होता है। प्रस्तुत अध्ययनानुसार, यह सिद्ध होता है कि तमक श्वास Bronchial Asthma से अत्यन्त निकट का साम्य रखता है।

सन्दर्भ ग्रन्थ

1. चरक संहिता – विद्योतनी हिन्दी टीका सहित
2. सुश्रुत संहिता – 'निबन्धसंग्रह' एवं 'न्यायचन्द्रिका' टीका सहित
3. अष्टांगसंग्रह – 'शशिलेखा' टीका सहित
4. अष्टांगहृदय – 'सर्वांगसुन्दरा' एवं 'आयुर्वेदरसायन' टीका सहित
5. भाव प्रकाश
6. द्रव्यगुण विज्ञान द्वितीय
7. Davidson's Principles & Practice of Medicine



*DR. GANGA SAHAI PANDEY MEMORIAL  
ALL INDIA AYURVEDA STUDENTS ESSAY COMPETITION - 2012  
1ST PRIZE WINNER ESSAY*

## **INTEGRATION OF AYURVEDA AND MODERN MEDICAL SCIENCE - A BOON OR A CURSE**

Integration is the process of harmonizing distinct branches. With integration of Ayurveda with modern medicine we mean integration of the rich values of Ayurveda with the principles of allopathy. In my opinion, if integration is done in a rational manner, keeping in mind all the positives and the lacunas, we can create a situation where excellence can be attained to such an extent that it would turn miraculous for the healthcare sector.

It has been said that in the estimation of the world, India suffers today more through the world's ignorance of her achievements than from the absence of them. India's achievements in the field of medicine are a prime example. The ancient medical science of Ayurveda, which is experiencing a renaissance at present, is perhaps the most sophisticated and comprehensive approach to health care the world has known. A comparison of Ayurveda and allopathy - their methodologies, origins, curative approaches, and disease causation theories raises serious questions. While modern medicine is thought to have replaced superstition and "folk" medicine, in comparison to Ayurvedic science, allopathy could be viewed as but an extension of the guesswork and superstition, it is thought to have replaced a mere poking in the dark, unfortunately, at the expense of our planet and its life forms.

Why and how has such a great science as Ayurveda been practically lost? The answer lies principally in foreign domination; a mentality that,

• **Vasundhara Parihar**  
incidentally, the allopathic mind-set gives rise to. The present day revival of Ayurvedic treatment can also be understood to be the result of the conscious mind behind it-"The meek shall inherit the Earth."

Foreign domination lasted in India for over 1,000 years, beginning with the Mughal tribes and ending with the British Raj. At least, it has formally ended with the British; but India has yet to reconstruct its great history, and in the meantime it continues to suffer from subtle foreign academic domination. While attempting to piece together the scraps of paper shredded by its foreign rulers, the world academic community continues to postulate a primarily Eurocentric view of cultural and scientific evolution. But the current upsurge of interest in Ayurvedic science is not as much an interest in India and it is a groping for meaning in a world dominated by atomism, that has left many unfulfilled at present, and even terrified about our future. When we speak of this ancient treatment system, we speak of a well thought-out world view which, if put into practice, can do much to remedy our modern-day maladies-biological, psychological, social, environmental, and spiritual.

Integration of any two technological sciences with the fusion of positive of both the sides is always for the betterment. Unlike the various systems of medicines like allopathy and homeopathy, Ayurveda is not a system of medicine but a science of longevity (ayurved = ayus: age, life, longevity and Veda: knowledge). This concept of

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ayurved is based on the combined study of body (sharira), sense organs (indriyas), mind (manas) and soul (atma). Equilibrium of these is related to health and their dysfunction is equated with death.

The knowledge of ayurved is eternal. It starts way back from ancient times. Though there is no clear information as to when this system evolved but it would not be wrong to say that in fact we really do not know when it was not there. The origin of disease must have coincided with the origin of life. Where there is life there is death and both of these are inseparable. There is a great deal of difference in Ayurveda and the allopathic from, while the former has a holistic approach, the latter one is basically based on the materialistic form of treatment, that is to target and cure the problem.

An expert in a system of medicine knows not only what the system can offer to the patient but also the limitations of the system. Thus experts when faced with difficult clinical situations are often tempted to try a different system of medicine.

As a provider of medical care 'a doctor' should know what is the best in his system and also should know what is best for patients in other system and should refer appropriately for the relief of patients. The holistic approach is slowly gaining pace and attention in allopathic system also. We can quote instances where Ayurvedic treatment coupled with modern medicine is delivering brilliant results. One such example is of the treatment of haemorrhoids and fistula. In this treatment the pre operative procedures is purely Ayurvedic technique the '**Kshara-sutra therapy**' and this whole resultant of this integration of the processes is that the patient can be discharged even on the same day from the hospital, no future complications, complete healing and minimal reoccurrence as compared to the allopathic procedures of Haemorrhoidectomy,

fistulotomy, fistulectomy. Likewise we can find similar examples in the treatment of renal disorders, especially renal calculi and also in case of liver disorders.

A small thing can lead to big miracles at times, similar example can be derived in case of the postulates (*Pathya and Apathyas*), which are also called as Do's and Don'ts of Ayurveda. Which when supplemented with the treatment procedures can enhance the efficacy of the drugs and can faster healing process. The best example is in the management of Benign Prostratic hypertrophy, where use of high Zinc herbs, reflexology, hydrotherapy and yoga yielded great results.

In the present times we find that most deaths and disabilities also occur from diseases of the Cardio-vascular system, psychosomatic problems, cancer and degenerative disorders like diabetes, gout and modern scourge of AIDS. There is no permanent cure of any of these diseases and their palliative treatment is becoming very expensive which many families and even states cannot afford. Modern medicien has provided excellent tertiary types of treatment in the form of very effective drugs, angioplasty procedures, radiotherapy and sophisticated advanced surgical techniques to tackle some of these diseases whose treatment could be beneficial for variable length of time. There is therefore, an urgent need on a global level and more so in poor nations to evolve preventive strategies on war footing basis to contain the emergence of epidemics of coronary disease, cancer and AIDS. Concepts and ways and means enunciated in Ayurveda should be revived to supplement and augment the achievements of modern medicines and vices versa. There is a living example where we find miraculous results being achieved at Wagholi Ayurvedic hospital, where



promising results were achieved in cancer patients, where till date 4000 patients have been successfully treated with supplementary Ayurvedic treatment to allopathic methods (Chemotherapy and Rasayanatherapy). Another successful example of integration of different systems viz allopathy, Ayurveda and homeopathy in the treatment of Lymphadenitis at Kasaragod.

Health is the fundamental right of all the people and the fundamental objective of the health care system is to keep the population healthy and treat the sick. People's health is much more important than the system of medicine. There are two types of practitioners - traditional and modern. It is unfortunate if somebody believes his own system to be the best and perfect. No medical system in health is perfect in the world.

Even though India is marching ahead to become a developed country, we find still there are areas where people die because of improper healthcare facilities. With a population of more than 1.3 Billion, providing healthcare facilities to all of them is a herculean task. There is still a dearth of doctors and the doctors to patients ratio is also very high.

The government of India has launched the National Rural Health Mission in order to cater the medical requirement of rural masses. Doctors are being appointed in the rural areas with a condition that they would stay stationed there and work for those people. We find that the doctors appointed under this scheme are mostly Ayurvedic practitioners. Imparting knowledge of modern medicine and to authorize them to practice allopathy alongside Ayurveda would not only be a boon for the doctors but also shall be a blessing for the patients living in those areas.

It is to be noted that India is not just India we

see in big cities and metros', 80% of India lives in its villages and we can consider ourselves developed only if we make India disease free.

Another aspect of integration of Ayurveda with modern sciences is its benefit in medical tourism. India has seen a steep growth in its medical tourism with thousands of people from foreign countries travelling to India to avail health care facilities in recent years. India has become as one of the hot favourite destinations in this sector and this has become a very new and potent source of revenue generation. Believe it or not, Ayurveda is the only science of India which is famous globally. There has been a great deal of inclination of foreign patients especially those from Europe and America towards the therapeutic benefits of Ayurveda. An Ayurvedic practitioner needs to be well versed with the knowledge of modern health sciences so as to cater these patients and to become a source of foreign exchange generation.

Not only this, the integration of Ayurveda with modern science would be a boon for Ayurveda itself. We all know that not much research could be carried out in this field during the medieval age. India was ruled by the Mughals who brought in India the concept of Unani medicine. They were least bothered to develop Ayurveda as a stream. It was just the rich knowledge and utmost belief of Indian population which kept this system alive. Integration will not only enlighten the Ayurvedic practitioners about the latest advancement in the health care sector but also it will foster towards the development of Ayurveda itself. With the help of tertiary diagnostic and therapeutic equipments provided by modern sciences, an Ayurvedic practitioner will become more competent to diagnose and treat the patients. This will also help to understand the underlying principles of Ayurveda



with an evidence and result based approach and this research will surely become an asset for the coming generations and we should understand that change is the law of nature and if something wants to survive for long, it needs to adapt itself with the contemporary conditions.

It is no longer permissible to ignore the diseased condition of our environment, social conditions, and mental states, and continue to extol the virtues of our system of medicine. Modern medicine is shortsighted and narrow in its focus. In the long run, now some 200 years down the road, the scales are tipping; modern medicine may ultimately do more harm than good. Although concerns for conditions which lay outside the sphere of allopathy - but which allopathy contributes to negatively nonetheless - are being mobilized, it is questionable just how much of a change they can effect. The comprehensive world view of which the ayurvedic tradition is a part - a rationally spiritual one - may therefore be worth attempting to resurrect. This is especially so when at the same time interest in Eastern medicine and philosophy is surfacing in many Western scientific circles. If one questions just how much of this ancient science can be revived, the answer lies in the fact that it is descending knowledge. It can be revived in proportion to our realization of our utter necessity for higher guidance, to which Divinity is so sympathetic, lost as we are in a maze of guesswork.

Ayurveda has introduced to the modern world such concepts which are considered very latest in the allopathic form. One fine example is of plastic surgery. During 19th century, Germans translated treatise of Ayurvedic author, Sushruta, the details of an operation of repair of damaged nose and ear (*Karna Sandhana and Nasa Sandhana*), the same operation appeared in modern text as plastic graft,

led to the development of plastic surgery as an individual specialty. It is worth considering that if one old text could contribute to the evolution of a completely new branch of modern sciences, there is no doubt if the whole Ayurvedic texts are revived it can lead the evolution so lot many other branches also which are alien to the modern allopathy.

Ayurveda's materia medica and therapeutic techniques have much more yet to contribute, its most valuable contribution will be made to new theory that medicine is trying to grow. These contributions will be derived from ayurveda's way of seeing the world, its *darshana* - a vision which will facilitate medicine's ability to teach people not just how to avoid disease but how to proactively develop and maintain a healthy state. With the modern research not so advanced in neurosciences, Ayurveda may provide the next big thing in the mind-body science. Who knows?

### शोक समाचार

डॉ० कामता प्रसाद शुक्ल, सेवा निवृत्त, रीडर, काय चिकित्सा विभाग, काशी हिन्दू विश्व विद्यालय का निधन वाराणसी में 13.02.2013 को हो गया। 1939 में जन्मे डॉ० शुक्ल जसरा, इलाहाबाद के मूल



निवासी थे। उन्होंने अपनी शिक्षा दीक्षा गर्वमेन्ट हाईस्कूल, जसरा तथा इविंग क्रिश्चियन कालेज, इलाहाबाद से की। पश्चात काशी हिन्दू विश्वविद्यालय में ए०बी०एस०एस०, पीएच०डी० की पढ़ाई समाप्त करने के पश्चात सर सुन्दर लाल चिकित्सालय, का०हि०वि०वि० में चिकित्साधिकारी पद पर नियुक्त हुए। पश्चात लेक्चरर एवं रीडर पद पर कार्य करते हुए सेवानिवृत्त हुए। उनके द्वितीय पुत्र डॉ० राजीव शुक्ल सम्प्रति विश्व आयुर्वेद परिषद, वाराणसी के अध्यक्ष हैं। डॉ० शुक्ल अपने पीछे भरा पूरा परिवार छोड़ गये हैं। विश्व आयुर्वेद परिषद परिवार उनको श्रद्धांजलि अर्पित करता है।



## परिषद् समाचार

### इटली में मकर संक्रांति पर्व समारोह पूर्वक मनाया गया

विश्व आयुर्वेद परिषद एवं 'होलिस्टिक स्कूल ऑफ आनंद आश्रम' के संयुक्त तत्वावधान में मिलान, इटली में 14 जनवरी 2013 को मकर संक्रांति पर्व उल्लास पूर्वक मनाया गया।

इस अवसर पर विश्व आयुर्वेद परिषद के विदेश विभाग संयोजक डॉ वैद्य स्वामी नाथ मिश्र जी ने प्रमुख वक्ता के रूप में बोलते हुए मकर संक्रांति का स्वास्थ्य की दृष्टि से महत्व बताया। उन्होंने कहा की मकर संक्रांति से दो ऋतुओं का संक्रांति काल प्रारंभ होता है अतः इस समय मनुष्य को खिचड़ी जैसे हल्के भोजन का सेवन करना चाहिए। गुड़ और तिल शरीर को बल प्रदान करते हैं अतः इनका सेवन स्वास्थ्य की दृष्टि से हितकर होता है।

कार्यक्रम के संयोजक श्री सत्यरंजन पॉल जी ने साधना के दृष्टिकोण से मकर संक्रांति के महत्व को पारिभाषित किया। उन्होंने डॉ वैद्य स्वामी नाथ मिश्र जी द्वारा आयुर्वेद के प्रचार प्रसार के लिए किये गए कार्यों की सराहना की और भविष्य में भी इसी प्रकार के कार्यक्रमों के संचालन में सबके सहयोग की अपेक्षा की। कार्यक्रम में 50 से अधिक संख्या में यूरोपीय लोगों ने भाग लिया। इस अवसर पर आनंद मार्ग के संन्यासी दादा कृष्णानंद अवधूत, डॉ दनिएले, डॉ कृष्ण ज्ञान, योग टीचर चिनसिया तथा अनेक योग और आयुर्वेद के छात्र भी उपस्थित हैं। कार्यक्रम का विशेष आकर्षण भारतीय भोजन रहा, जिसे लोगों ने बड़े चाव से खाया। कार्यक्रम का प्रारंभ और समापन ऊँ की ध्वनि से हुआ।

### इलाहाबाद में धन्वन्तरि जयन्ती समारोह

दिनांक 11.11.2012 को आयुर्वेद पथपदर्थक भगवान धन्वन्तरि जी की जयन्ती विश्व आयुर्वेद परिषद एवं राजकीय आयुर्वेद महाविद्यालय, हंडिया के संयुक्त तत्वावधान में डाबर इण्डिया के सौजन्य से गोविन्द वल्लभ पन्त सामाजिक विज्ञान संस्थान झुंसी, इलाहाबाद में हर्षोल्लास से मनाई गई। जयन्ती के साथ-साथ पर्यावरण प्रदूषण के नियन्त्रण में आयुर्वेद की भूमिका विषय पर एक वैज्ञानिक संगोष्ठी का आयोजन भी किया गया।

उपरोक्त अवसर पर राजकीय आयुर्वेद महाविद्यालय एवं परिषद के सभी पदाधिकारी एवं सदस्यों के साथ-साथ तमाम गणमान्य चिकित्सक एवं अन्य श्रेष्ठ जन उपस्थित हो अपने-अपने विचार व्यक्त किए। समारोह की अध्यक्षता डा. जी.एस. तोमर एवं मुख्य अतिथि के रूप में डा. शालिग्राम गुप्ता जी उपस्थित थे। डाबर इण्डिया के तरफ से डा. शालिग्राम जी को धन्वन्तरि सम्मान दिया गया।

हण्डिया महाविद्यालय के डा. सामू प्रसाद पाल ने धन्वन्तरि की ऐतिहासिकता पर प्रकाश डाला। विश्व आयुर्वेद परिषद काशी प्रान्त के अध्यक्ष डा. पी.एस. पाण्डेय जी ने आधुनिक शल्यतंत्र के विकास एवं उसकी ऐतिहासिकता स्पष्ट करते हुए आयुर्वेद को इसकी जननी बताया।

विश्व आयुर्वेद परिषद प्रयाग के महामंत्री डा. एम.डी. दूबे एवं डा. एस.एस. उपाध्याय ने अपने सारगर्भित विचार रखे। गोष्ठी में प्रवक्ता डा. अजय कुमार यादव एवं डा. विनोद कुमार ने भी अपने-अपने विचार रखे। कार्यक्रम का संचालन डा. बृजेश कुमार मिश्रा एवं परिषद के महासचिव डा. एम.डी. दुबे ने संयुक्त रूप से किया। समारोह में डा. बी.एस. रघुवंशी, डा. नरेन्द्र कुमार पाण्डेय, प्रयाग इकाई के अध्यक्ष डा. संजय बरनवाल, डा. जी.के. सिंह आदि ने विशेष सहयोग प्रदान किया। कार्यक्रम के अन्त में डाबर इण्डिया लिमिटेड के सीनियर ओ.पी.एम. श्री राजेन्द्र कुमार सिंह ने धन्यवाद ज्ञापन किया।



## मकर संक्रान्ति/विश्व कल्याण दिवस समारोह

विश्व आयुर्वेद परिषद् (प्रयाग इकाई) के तत्वावधान में दिनांक 15 जनवरी 2012 (रविवार) को कायाकल्प आयुर्वेदिक चिकित्सा केन्द्र के सभागार में मकर संक्रान्ति पर्व को विश्व कल्याण दिवस के रूप में हर्षोल्लास के साथ मनाया गया। कार्यक्रम की अध्यक्षता परिषद् के संस्थापक सदस्य एवं वरिष्ठ चिकित्सक डा० शालिग्राम गुप्ता जी ने तथा संचालन महामंत्री डा० एम०डी० दुबे ने किया।

समारोह के विशिष्ट अतिथि एवं काशीप्रांत के अध्यक्ष डा० प्रेमशंकर पाण्डेय जी ने कहा कि मकर संक्रान्ति शिशिर ऋतु के प्रारम्भ में पड़ती है तथा यह काल वर्ष में नैसर्गिक रूप से सर्वोत्तम स्वास्थ्य का होता है। किन्तु आगे धीरे-धीरे नैसर्गिक स्वास्थ्य में गिरावट का समय आता है। इस समय अग्नि तीव्र रहती है तथा गरिष्ठ भोजन भी पच जाता है किन्तु आगे आने वाले समय में गर्मी बढ़ती है और अग्नि मंद हो जाती है। ऐसे समय में संस्कार द्वारा लघु बनाये गये पदार्थों का सेवन हितकर होता है।

इसीलिये संक्रान्ति के दिन चावल दाल आदि गुरु पदार्थों के मिश्रण से बनाई गई खिचड़ी, लाई, तिल, गुड़ आदि के मिश्रण से बने खाद्य पदार्थों का सेवन किया जाता है। ये पदार्थ संस्कार द्वारा लघु एवं सुपाच्य हो जाते हैं।

समारोह में प्रयाग इकाई के अध्यक्ष डा० संजय बरनवाल, उपाध्यक्ष डा० सुधांशु उपाध्याय एवं डा० बी०एस० रघुवंशी तथा उपमंत्री डा० नरेन्द्र कुमार पाण्डेय ने भी विचार व्यक्त किये। इस अवसर पर काशीप्रांत के उपाध्यक्ष वैद्य आशुतोष मालवीय, डा० शंकर मिश्रा सहित अनेक चिकित्सक भी उपस्थित रहे। अन्त में परिषद मन्त्र के साथ सभा की कार्यवाही समाप्त हुई।

## छः दिवसीय व्यक्तित्व विकास एवं भविष्य निर्माण शिविर का आयोजन

विश्व आयुर्वेद परिषद, वाराणसी शाखा द्वारा मिर्जापुर जनपद के चुनार क्षेत्र में (विन्ध्य विकास गौशाला, समसपुर) एक छः दिवसीय आयुर्वेद स्नातक छात्रों के लिए प्रादेशिक स्तर पर व्यक्तित्व विकास एवं भविष्य निर्माण नामक कार्यशाला का आयोजन दिनांक 17 अक्टूबर 2012 से 23 अक्टूबर 2012 तक किया गया।

इस कार्यशाला का मुख्य उद्देश्य था कि आयुर्वेद के छात्र अपने विषयों के साथ-साथ उन सभी पक्षों में जानकार बनें जो एक सफल व्यक्ति एवं सफल चिकित्सक बनने के लिए आवश्यक है। इस कार्यशाला के आयुर्वेद की वैश्विक मांग, कृषि एवं आयुर्वेद, गो द्रव्य एवं आयुर्वेद चिकित्सा, खेल का व्यक्तित्व विकास में योगदान, चिकित्सकीय अनुसंधान, पंचकर्म एवं क्षारसूत्र, आयुर्वेद की नैदानिक विधियाँ, प्रौद्योगिकी एवं वाणिज्य का व्यक्तित्व विकास में योगदान, जलौका द्वारा उपचार, वार्तालाप दक्षता, वर्तमान परिवेश में आयुर्वेद चिकित्सकों का चिकित्सा व्यवसाय में सफलता के उपाय, रोगी चिकित्सक सम्बन्ध, आयुर्वेद चिकित्सक की वैधानिक जागरूकता आदि महत्वपूर्ण विषयों पर चर्चा, पावर प्वाइण्ट प्रस्तुतिकरण एवं प्रश्नोत्तर द्वारा किया गया। प्रतिदिन प्रसिद्ध नाड़ी वैद्य श्री नन्दलाल जी द्वारा छात्रों को नाड़ी का व्यावहारिक ज्ञान देकर प्रशिक्षित करने का प्रयास किया गया।

इस कार्यक्रम में उत्तर प्रदेश के लखनऊ, वाराणसी, अलीगढ़, अतर्रा, इलाहाबाद, बी०एच०यू० आदि स्थानों से आये विद्यार्थियों ने इसमें भाग लिया। कार्यशाला के विभिन्न व्याख्यानो/प्रस्तुतिकरण को प्रो० रामहर्ष सिंह, श्री ओ०पी० केजरीवाल (पूर्व सूचना आयुक्त), प्रो० आर०पी० शुक्ल, क्षार सूत्र चिकित्सा विशेषज्ञ डा० रमन सिंह, डा० अनिल कुमार सिंह, डा० बी०के० द्विवेदी, डा० यशवन्त चौहान डा० अजय पाण्डेय, प्रो० आर०सी० तिवारी, डा० विजय कुमार आदि ने प्रतिभागियों के सम्मुख रखा।

कार्यक्रम के संयोजक डा० कमलेश कुमार द्विवेदी एवं आयोजन सचिव डा० ओ०पी० सिंह डॉ० भगवान यादव थे।



## लखनऊ में धन्वन्तरि जयन्ती का आयोजन

लखनऊ में धन्वन्तरि जयन्ती का आयोजन बड़ी धूमधाम से शोध संस्थान, निराला नगर में मनाया गया। मुख्य अतिथि प्रो. योगेश चन्द्र मिश्र, राष्ट्रीय अध्यक्ष, विश्व आयुर्वेद परिषद थे। डॉ. वाचस्पति त्रिवेदी, पूर्व राष्ट्रीय महामंत्री ने कार्यक्रम की अध्यक्षता की। अवध प्रान्त के संयोजक डॉ. आशीष मिश्र ने विषय स्थापना, परिषद के उद्देश्य पर प्रकाश डाला। डॉ. मनोज कुमार मिश्र, सदस्य, केन्द्रीय भारतीय चिकित्सा परिषद, नई दिल्ली ने भारत सरकार द्वारा चलाये जा रहे कार्यक्रमों की जानकारी दी। मा. ओम प्रकाश जी, अखिल भारतीय सह सेवा प्रमुख ने वर्तमान में गो सेवा क्षेत्र में हो रहे शोध पर जानकारी दी। जिसमें कैंसर जैसे दुःसाध्य बीमारियों में गोमूत्र से लाभ पर चर्चा की गयी।

प्रो. बाबूराम त्रिपाठी, प्रो. पी.एस. श्रीवास्तव, डॉ. पद्माकर लाल, डॉ. अभय तिवारी, डॉ. शिरीष मिश्र, डॉ. मनीष राय, प्रो. सुदीप सहाय बेदार, प्रो. हेमन्त राय, डॉ. अरविन्द श्रीवास्तव का विशेष सहयोग रहा। धन्यवाद ज्ञापन डॉ. आशीष मिश्र तथा संयोजन डॉ. पुनीत मिश्र ने किया।

## विश्व आयुर्वेद परिषद पंजाब प्रान्त की बैठक

विश्व आयुर्वेद परिषद, पंजाब प्रान्त की बैठक फरीदकोट में डॉ० दीपक गोयल, प्रान्तीय अध्यक्ष पंजाब की अध्यक्षता में सम्पन्न हुई। इस अवसर पर डॉ० अश्वनी भार्गव, परिषद की गतिविधियों पर प्रकाश डाला। दो आयुर्वेदिक कालेज के प्रिंसिपल सहित पांच कालेजों के शिक्षक एवं चिकित्सक उपस्थित थे। पांच आयुर्वेदिक कालेज के संयोजक की नियुक्ति की गई तथा फरीदकोट जिला इकाई का गठन किया गया। विश्व मांगल्य तथा आयुर्वेदिक कालेजों में एक दिवसीय शिविर लगाने की सहमति दी गयी।

फरीदकोट इकाई के पदाधिकारी—

संरक्षक— डॉ० तेजपाल, अध्यक्ष— डॉ० प्रदीप, उपाध्यक्ष— डॉ० सन्दीप गुप्ता, सचिव— डॉ० राजीव सेठी, सहसचिव— डॉ० ललित सचदेवा, कोषाध्यक्ष— डॉ० संजीव सेठी  
आयुर्वेदिक कालेजों के संयोजक

गुरुनानक आयुर्वेदिक कालेज, मुक्तसर — डॉ० एन०पी० लाल, डॉ० अवधेश भट्ट, डॉ० नितिन वैद्य

माई भागो आयुर्वेदिक कालेज, मुक्तसर— डॉ० परमवीर सिंह

बाबे के आयुर्वेदिक कालेज, दौधर (मोगा)— डॉ० घनश्याम बाहेत

सत्य साईं मुरलीधर आयुर्वेदिक कालेज, मोगा— डॉ० सुधीर तुली

सेंट सहारा आयुर्वेदिक कालेज, बठिंहा— डॉ० अमिताभ, डॉ० रवि अरोरा, डॉ० अखिलेश

### शोक समाचार

विश्व आयुर्वेद परिषद के आजीवन सदस्य डॉ० विजय कुमार श्रीवास्तव, रीडर, शालाक्य तन्त्र, राजकीय आयुर्वेद महाविद्यालय, वाराणसी का असामयिक निधन 26 अक्टूबर 2012 को हो गया। डॉ० श्रीवास्तव मूल रूप से बाराबंकी के निवासी थे। उनकी इण्टर तक शिक्षा दीक्षा बाराबंकी, पश्चात बी०ए०एम०एस०, लखनऊ, एम०डी० (शालाक्य), पीएच०डी० काशी हिन्दू विश्व विद्यालय से हुई। डॉ० श्रीवास्तव मिलनसार, मृदुभाषी एवं परिषद के सक्रिय सदस्य थे। विश्व आयुर्वेद परिवार उनको श्रद्धांजलि अर्पित करता है।



## Instructions to Authors

The Journal of Vishwa Ayurveda Parishad (JVAP) is the official journal of Vishwa Ayurveda Parishad. The journal accepts original work in the field of Ayurveda and related topics. Now the journal is available online at [www.vishwaayurveda.org](http://www.vishwaayurveda.org).

Only original contributions in various areas of study related to Ayurveda such as literary, fundamental drug research, review articles, clinical research and book review etc. are accepted.

The manuscripts should be typed in MS Word format double space, character Kruti Dev 010 for Hindi & Times New Roman for English on one side of paper with pages numbered consecutively. Typing sheet should be of A4 size and have a margin of 2 cm (all side). The paper should be sent to the editor by speed post on the below address -

Author can send one copy of paper by e-mail on [vapjournal@rediffmail.com](mailto:vapjournal@rediffmail.com), [dwivedikk@rediffmail.com](mailto:dwivedikk@rediffmail.com). Each article should preferably be divided into following broad sections

- (i) Abstract,
- (ii) Key words (maximum 5),
- (iii) Introduction,
- (iv) Methods and Materials,
- (v) Result,
- (vi) Discussion,
- (vii) Conclusion,
- (viii) Acknowledgement and References (including Electronic Sources, Web site etc).

The article should be of minimum 800 words and maximum 2000 words (for article) and 3000 words (for literary research).

The authors are advised to give their names, in the form in which they want them to appear in print just after the title. The authors must write their full name, designation, official address, permanent address with pin code, phone/mobile number and e-mail address in last of paper.

The medium of article is English, Sanskrit or Hindi. All pages (except the title page) should be numbered consecutively in Arabic numerals (such as 2, 3, 4,.....) at the centre top of each page. Received articles will be evaluated by three referees before publication.

The name of the authors mentioned in references or bibliography are to be put in following way surname then first and second name. It should be in an alphabetical order. Maximum two names will be accepted in one article as contributor.

Illustrations, photographs, tables, maps, graphs, should be given only when they are necessary. They should be numbered in Arabic numerals. Tables must be typed on separate sheets. Graphs {**MS EXCEL format**}, Photographs (**JPEG or GIF Format** with high resolution)

The contributors are requested to make use of Diacritical marks while preparing the manuscript of their research articles particularly in transliterating Sanskrit/Hindi words in English language.

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मिलान, इटली में मकर संक्रान्ति पर्व



विश्व आयुर्वेद परिषद, पंजाब प्रान्त की बैठक



आयुर्वेद विद्यार्थी व्यक्तित्व विकास एवं भविष्य निर्माण शिविर, उज्जैन, मध्य प्रदेश की स्मृतियां

वि व आयुर्वेद परिषद के लिए प्रोफेसर सत्येन्द्र प्रसाद मिश्र, महासचिव द्वारा नूतन ऑफसेट मुद्रण केन्द्र, संस्कृति भवन, राजेन्द्र नगर, लखन से मुद्रित कराकर, 1/231 विराम खण्ड, गोमती नगर, लखन -226010 से प्रकाशित प्रधान सम्पादक- प्रोफेसर सत्येन्द्र प्रसाद मिश्र