A Vaidya who spiritually & mindly

cannot establish relation with the patient,

cannot diagnose and treat the patient properly.
REVIEW OF THE AYURVEDIC LITERATURE

Ayurveda is the Veda of Ayu & it is present on the earth since the presence of Ayu on it. In the earlier stage, Ayurveda was found in the four vedas namely Rugveda, Yajurveda, Samveda and Atharvaveda. In Atharvaveda the description of Ayurveda is found briefly & hence it is known as the upveda of Atharvaveda.

The time of vedas invention is considered as 2500 yrs. AD so it is also considered that man has the knowledge of medicine since then. Life of man has evolved with time. Dietary habits of man have totally changed. Due to this, disease & the form of the disease has also changed, so the medicines are also changed. This change shows the scientific development.

EVOLUTION OF AMAVATA IN INDIAN SYSTEM OF MEDICINE

At the dawn of new millennium our ancient medical wisdom is once again on the ascendant & there is an island of hope towards Ayurveda. According to the experts, the age of Indian system of Medicine (Ayurveda) is about 2500 years. Of course the quest for medicine with few achievements must have been existing even much before which may be traced unto the beginning of human race. But when the term Ayurveda or Indian System of Medicine is under reference it means a systematic knowledge of body, disease and its treatment.

With the passage of time most of our diet habits, social structure, way of life and environment have been changing. Accordingly the old diseases were likely to change as regards their incidence, severity, manifestation and prognosis; so simultaneous modification in the existing treatment and discovery of new measures and medicine were also due. Thus the process of evolution in the entire system of Indian Medicine is the natural outcome of its long period for which arthritis is not an exemption.

If we review the literature of the Indian system of Medicine, in the background a process of evolution, in which knowledge of arthritis is apparent. 77. As mentioned earlier the nearest resemblance of RA is with “Amaavata” a polyarticular joint disease described in ancient Indian System of Medicine but this
disease entity too has been lately recognized; first by Madhava somewhere in 9th century and has been described in his book of clinical medicine entitled as “Madhava Nidan”.

Broadly speaking the entire period of Indian system of medicine can be divided into three groups

(i) The classical period from 500 BC to 500 AD, In this period most of the classical work on Ayurveda had been done. Chraka Samhita, Sushruta Samhita and Astanga Hridaya are the main contributions of this period. During this period systemic medicine had been developed and all the fundamentals of Ayurveda were postulated. In addition a lot of clinical observation had been done and diagnosis and management of many diseases had been described based on fundamentals and empirical knowledge.

(ii) Samgraha Kala from 600 AD to 1600 AD, In this period, the work previously done had been analysed in the form of various commentaries and collection works. Some original had been identified, new classifications of the old one had been forwarded and a new line of treatment i.e. chemotherapy had been extensively tried in the light of which principles of treatment had been thoroughly revised.

(iii) Modern Period coincides with the scientific revolution. In this period the attempt is being done to rationalize both the previous fundamentals and applications in the view of the present scientific development. Recently attempt has been made to substantiate such rationalization with original observations and researches. Hence the developments regarding the knowledge of arthritis in Indian system of medicine may be considered in the same pattern.

CLASSICAL PERIOD

In classical period there are references of few polyarticular and few monoarticular joint diseases e.g. vatarakta (gout) sandhigatavata, (osteo-arthritis), krostukshirsha (synovitis of knee joint) etc. Among them the description of vatarakta is important in this reference. According to Ayurveda, Vatarakta is a disease of rich, Obese and delicate persons. It is caused by the excessive use of salt, sour things, pepper, sweet, fish, meat, pulses, fat and alcohol, sedentary habits, habit of day sleep, horse and camel
riding and frequent anger are contributory factors. In this disease whole blood is vitiated which obstructs the normal functioning of vata in the body and most of the joints including the small joints of hand and feet are inflammed. There are associated lesions of skin of various types. This disease usually starts from the greater toe but it may also begin from the small joints of the hand. This disease has been classified in two groups (1) Superficial and (2) deep, depending upon the involvement of superficial and deeper tissues. In deeper type there is destruction of bones and cartilage.

**Medieval Period : Sangraha kala**

The description of Amvata is found first in Madhava Nidan, a book on clinical medicine which is one of the earliest works available in this period. According to Madhava it is also a polyarticular joint disease associated with a number of constitutional symptoms like bodyache, lassitude, heaviness, fever, swelling etc. The prevalence of gastro-intestinal symptoms as anorexia i.e. loss of appetite, indigestion, constipation or diarrhoea have been emphasized. As regards the joint involvement in this disease all the joints of upper and lower extremities and vertebral column may be involved- There are periods of exacerbations and remissions and in the former stage the joints are severely painful which has been compared to the pain of scorpion bite.

He has also formulated a hypothesis of aetio-pathogenesis, which will be discussed in forth-coming pages. All other works of this period include description of “Amavata” A few of them have tried to put forth their views regarding aetio-pathogenesis.

**Modern Age**

In the modern age an attempt has been made to incorporate the available knowledge in Ayurveda and while doing so Shri Gannath Sen has named 'Amavata as Rasavata. Recently some work has been done in Post-graduate Institute of Indian Medicine, at Banaras Hindu University and it has been observed that on the basis of clinical manifestations and aetio-pathogenesis, Rheumatoid arthritis of today may be included in 'Amavata' of Indian system of Medicine. Thus if one
examines minutely, one finds a similar process of evaluation in the Indian System of Medicine regarding arthritis as it has been observed in the western medicine.

There seems to be an overlapping in the description of Vatarakta and Amavata described in classical period. Many of the clinical features of RA are included in it. Side by side the skin manifestations described in association with the joint inflammation in vatarakta remind us about psoriatic arthritis, scleroderma which are actually the variants of rheumatoid arthritis.

**“AMAVATA”**

**ENTERO-ARTHRITIS) RHEUMATOID ARTHRITIS FEATURES**

1. PAINFUL SWELLING OF THE JOINTS - HANDS, FEET, ANKLE, KNEE, HIP AND SACROILIAC ETC.
2. NATURE OF PAIN - LIKE THAT OF SCORPION BITE
3. GASTRO INTESTINAL UPSET - INDIGESTION, LOSS OF APPETITE LOOSE MOTIONS OR CONSTIPATION, REGURGITATION, FLATULANCE.
4. URINARY SYMPTOMS - POLYUREA
5. CARDIAC INVOLVEMENT - PRECORDIAL DISCOMFORT
6. CONSTITUTIONAL SYMPTOMS - FEVER, MALAISE

IN THE PERIOD OF EXACERBATION IT IS MOST PAINFUL DISEASE AMONG OTHERS PAINFUL SWELLINGS IT IS PRODUCED IN HANDS, FEET, KNEE, HIP, SACROILIAC AND OTHER JOINTS OF THE BODY DEPENDING UPON THE SITE OF ACTION OF MORBIDITY ELEMENT (DOSHA -HUMOR) THE NATURE OF PAIN ON SITE OF LESION IS SEVERE AND IS LIKE THAT CAUSED BY SCORPION BITE.

-MADHAVA (900-1100 AD)

संकष्ट: सर्व रोगाणां यदा प्रकुप्तिः भवेत् ॥
हस्तपाद शिरो गुल्फ त्रिक जानु जनित विनिर्मुख ॥
क्षातिः सर्व श्रेयः गुणों वन दशेः प्रथम भवेत् ।
स देशो रुग्मयमय क्रियापि वयक्तः द्रव्यसूतिः ॥

Clinical features of rheumatoid arthritis according to Indian-System of Medicine. Emphasis is more on gastro-intestinal symptoms.
But gradually a separate disease entity by the name of Amavata has been described and some modification has been done in the description of Vatarakta by Madhava in ninth century. Thus the credit of evolving the description of Amavata goes to him. There is circumstantial evidence that prior to him, these patients were also included in Vatarakta.

If one compares this process of evolution with that happening in the western world. It is much earlier as the differentiation of chronic from acute rheumatism and recognition of rheumatoid arthritis as a separate disease entity are the achievement of 17th and 18th century A.D. So it shows the consciousness of the physician of those days in India towards this problem. Therefore, it is expected that their observations in the field of aetiopathogenesis and treatment may also prove worthy to be called as scientific if necessary investigations are carried out.

Today, different institutes of medical sciences are working to find out all aspects of the disease. Many people, throughout the world, are suffering from Amavata.

Not only the institutes but the central government & World Health Organisation (WHO) are also working on international level. In south India research work is going on, over Amavata in Keralian Chikitsa therapy.

In Banaras Hindu Vishwavidyalaya & in Jamnagar the work of research is going on at the post-graduation level. "The Indian Council of Medical Research " is also working in this field. M.M.L. Center for rheumatic disease, which is situated in Delhi, is also working hard & here the different medicines are used in research work to get the perfect medicine & remedy for the disease Amavata. From time to time different seminars are also arranged to clear the views & ideas about the disease.

The Inventions in Amavata in different institutes during last era are as follows:-

A.- 1) In Banaras Hindu Vishwavidyalaya -
An experimental & clinical study on Karimula, on rheumatic disease.
W-Brahmaswarup sharma(Dec. 1972)

2) An experimental & clinical study -
On rheumatic arthritis (Amavata) with special reference to it's diagnosis & treatment.
- 3) Experimental & clinical evaluation -
  Of different parts of Bhallatak in treatment of Amavat.
      W- Vaidya L.C. Jaiswal 1980

B. In Jamnagar Vishwavidyalaya-

  1) आमवात का अध्ययन और विशिष्ट आयुर्विज्ञानीय चिकित्सा
     - ले.डी.पी. शुक्ला (1986)
  
  2) सर्दियन रोगों में शुद्ध गुगुल का प्रयोग
     - ले. कृ. कुमुदजी आमव (1986)
  
  3) A study of Guggul on Rheumatoid Arthritis
     - Mahesh Pandit
  
  4) आमवात का समीक्षण अध्ययन
     - ले. हरीदास मुन पठेल
  
  5) A study of Shuddha Guggul on rheumatoid arthritis
     W – Mahesh Pandit

6.1. आमवातमें पंचकोलका प्रयोग (एक अध्ययन)

C. In Rajpur Vishwavidyalaya -
  Utility of Panchkol Aasav in Amavat.

AMAVATA - NIRUKTI & DEFINITION

Amavata is composed of two words: Ama + Vata In Ayurveda the words Aam & Vat have different specific meanings. So now we will see what is Ama & Vata.

Nirukti of Ama -

अम अपक्ष्यम् – वै शास्त्र कोष (वेद वेयु मा, शास्त्री)
अपक्ष्यः आज्ञाय अत्तरसी वा अपक्ष्यः उद्धारे | (यक्षपाणी)

According to Nirukti the word Ama means the product of improper digestion or due to mandagni, the food which is not digested properly gets converted into an undigested or semidigested harmful product which is known as Ama.

The same Nirukti is given in all the 'Shabdakoshas'. The word Ama itself indicates indigestion.

Definition of Ama -

The product which is produced during digestion due to Dhatwagnimandya or Jatharagnimandya is known as Ama.
1) Aacharya Charak has defined Ama as the product of imbalanced diet or Aaharjanya Bhava.

2) According to Chakrapani dutta Ama is a undigested food juice.

3) According to Aacharya ‘Vagbhata’ due to mandagni, when food is not digested properly, it is not used by the Rasdhatu. The juice then remains as it is in the stomach & gets converted into a harmful product which is known as Ama.

4) The undigested juice which is produced due to jatharagnimandya is known as Ama.

5) According to Aacharya ‘Sushrut’ (Dalhan) “Ama” is nothing but the undigested Aahar ras. This undigested Aahar has cannot be converted into Sthayi dhatu (Ras) and hence known as “ama”.

6) According to Madhav Nidan after the digestion of Aahar Ras, the Ras which is not used due to Agnimandya is known as Ama & is the main causative factor of all the diseases.

7) According to other ‘Aacharyas’, when the yeast (kodrav) is mixed with water, fermentation occurs & a third product is produced. Like that when Vata, Pitta, Kapha doshas get mixed (physical &/or chemical mixing) then sammurchhana occurs & a poisonous substance is produced. This is known as Ama.

8) The undigested (food juice) Ras which is produced from food is known as Ama.

9) According to the Tika of Vijaya Rakshit of Madhav Nidan, the undigested first dhatu Ras is produced due to Kayagnimandya in Aamashaya. It is known as Ama.

10) According to other 'Aacharyas' the waste product Mala which is not excreted by the body & remains inside the body is known as Ama.

11) Some Aachryas say that the first stage of Dosha dushti is known as Ama. According to Shabdakalpadrum due to ‘Ajeema’ the undigested Ras is stored in the body which is known as Ama.
12) According to Aacharya Ishwarsen, the food when undigested, remains in Aamashaya and is known as Ama.

13) According to Bhavaprakash due to undigested food the first dhatu gets stored in the body known as Ama.

Symptomatic Existence of Ama in Body :-

Aamdosh is characterised by the production of Mruduta, Pichilata, Mandata, Abhishyanda, Kled etc. guna. in the body. So with the production of aam in the body there is the symptom of obstruction in strotasa causing diminution in the power of strotasa.

Because of Aam in the body, there is obstruction in the routine functions of strotasa which produces Gauravata, malaise, generalised weakness, indigestion, gastric disturbance, excessive salivation in mouth, loss of taste thus one feels exhausted without any exertion. These symptoms are expressed due to the presence of aam in the body. Doshas mixed with aam pollutes the dushya which is called as saam dushya, & it is responsible for the production of diseases.

TREATMENT OF AMA -

If aam spreads throughout the body and mixes with the doshas an attempt to remove it out of the body through shodhana chikitsa can prove fatal, just like trying to extract juice from a raw fruit destroys the fruit. These doshas should be made favourable for sanshudhan by using digestive (paachaniya) & stimulant (Dipaniya) medicines along with the snehan & swedan. These doshas should be removed out through the nearest route. While doing this, the energy of the patient should also be kept in mind.

To destroy ama one should do complete Langhan. Luke warm water, peya, vilepi, yusha like this light food should be given by using Tikta rasa. Niruha basti, swedan etc. The medicine digesting aam should be given, after that by upper & lower tract sanshudhan treatment should be given.
AGNI VIVECHANA

Ama is produced due to the hampered power of Agni and production of ama is responsible for the production of amavata. So it is essential that one should think about agni. The substance which converts the food (which has came from mouth to intestine) into Ras and mala by various digestive juices is known as Kayagni or Jatharagni.

AGNI ADHISHTAN

The pittadhara kala is situated in between pakvashaya and aamshya. This is the place of agni. The function of this is to digest 4 types of the food coming from Aamashaya to pakvashaya, to stop it in pachyamanashaya for digestion, to digest it with the power of pitta & absorption of it after digestion.

TYPES:-

Agni is of 13 types in human body.
1) Kayagni-1
2) Dhatwagni-7
3) Bhutagni-5

1) KAYAGNI-

It is situated in between pakvashaya & aamashaya and digests ashita etc. 4 types of food by converting them in the form by which it will be absorbed by sharirdhatu & after that it seperates the Doshas,(Ras) Food Juice,(Mutra) urine, (purish) stool which is produced by action of kayagni on it. Some part of this Jatharagni is present in the (aashya of dhatu) dhatvashaya.

As due to the action of Jatharagni on food it is converted & separated into pak, ras & mala as like that the rasa which is acted upon by jathragni reaches into the dhatvashaya. There it is digested again by the dhatvagni present in dhatvashaya to convert it into the form by which nutrition of dhatu will be done.

Jathragni, by living at its own site, gives energy to the dhatvagnies & also to the body.

Out of 13 types of agni present in the body Jatharagni is supposed to be the main pachakagni, is the base or root of 12 types of remaining agnis. Increase in
the power of pachakagni will increase the power of remaining agnies & decrease in the power of pachakagni the remaining agnies will also be decreased in power. So by correct method of taking food and by correct food, one should maintain the pachakagni. Life and energy in the body depend upon the condition of pachakagni.

2) DHATVAGNI -

There are seven dhatus in our body each having its own agni like Rasagni, Raktagni, Mansagni, Medogni, Asthyagni, Majagni & Shukraagni in males while Aartvagni in females. Food digested or acted upon by jathragni is again acted upon by the ras raktadi saptadhatvagni and converted into kitta (waste) & prasad part in these 2 types. Food juice, stool and urine are formed by the food after the action of Jathragni on it. Again this food juice is digested by Rasagni and converted into poshya Rasdhatu, poshaka next dhatu (Rakta) & Kafa Dosha & kled as waste product. Like this the process of formation of next dhatu is continued by respective agnies of respective dhatu.

3) BHUTAGNI -

Human body is made up from panchmahabhuta & loss of it due to various body functions and for growth of the body panchbhautik substances from external environment are to be taken. Due to action of bhutagni these panchbhautik substances are converted from environmental form to body form. The parthiv elements of foods taken from external environment are converted into parthiv elements suitable to the body by the action of parthivagni on it. Like this, the agnis of Aap, Tej, Vayu & Akash mahabhutas make the elements of Aap, Tej, Vayu & Akash Mahabhuta in the body. Bhutagni converts the substance in the Mahabhuta. It also converts the guna.

Due to limited form it can digest only the part which is similar to that Mahabhuta. To accept the subjects of Sensory organ is also a function of bhutagni.

**FOUR TYPES OF AGNI -**

AGNI TYPES -
According to Charaka there are 4 types of agni present in human body.
Acharya Vagbhata has also told this, clearly.
1) Vishmagni 2) Tikshnagni 3) Mandagni 4) Samagni

1) VISHAMAGNI-
It digests the food in visham form & makes the dhatu vishama. This is
present in vatprakruti person as Agnisthan belongs to vata. If we do not follow
rules of taking food, vishmagni may or may not digest food normally. Vishmagni
produces vatroga.

2) TIKSHNAGNI-
According to Charakacharya the agni which destroys the dhatu of a person
who takes less food is known as tikshnagni. By the action of bhutagni these
panchbhaautik substances are converted from environmental form to body form. The
parthiv elements of food taken from external environment are converted into
parthiv elements suitable to the body by the action of parthivagni on it. It digests
large quantities of food also. It takes the form of Atyagni or Bhasmak.

3) MANDAGNI -
It is unable to digest low quantity of food, produces vidah of food taken in
low quantity & gives off the Vidahyukt food by upper tract (vomitting) or lower
tract (virechna )

4) SAMAGNI -
Samagni is due to equal quantity of dosha. The agni which digests the food
in useful quantity in right time is known as samagni. It is considered that samagni
is highest or chief in all agnies, as it doesn’t cause any disease. Samagni produces
dhatusamya.

IMPORTANTANCE OF AGNI -
Life (Ayu), colour (varna), energy (Bala) health ( swasthya) freshness
(utsah), Growth of body (upchaya) prabha, oja, teja, Agni & pran these all are due
to the presence of agni in body. In human body if dehagni gets destroyed then
person dies & if agni is disturbed then person will suffer from various diseases.
The one whose agni is normal he will remain Anamaya i.e. he will not suffer from any kind of disease & will be alive for long. So agni is called as the base or root of the body.

The nutrient food of Dehdhatu, Bal, Varna & Oja also contains agni. Because formation of dehdhatu from undigested food material is impossible. Acharya Sushruta has called the agni specially Jatharagni as “BHAGWAN” & “ISHWAR” as it digests the food material & makes poshak Ras etc. It is sukshma.

**PACHANKARMA**

The agni which makes digestion of food in human being is known as pachkagni or jathragni or kayagni. Kaya word itself denotes Agni. In ayurvedic sahitya we get 3 types of paka.

i) Awasthapak

ii) Bhutagnipak

iii) Dhatwagnipak

**i) FIRST AWASITHAPAK-**

The pak made by various digestive juices present in Mahastroti. Mahastrotas is that Kosthagat organ which starts from mouth opening upto anus, in the form of strotasa. In organs of Mahastroti various kinds of digestive juices are secreted, which digest the food. The process of digestion of food starts from mouth. At the time friction process of food, first of all food bolus is formed due to salivary secretions of salivary glands & with grinding the food by teeth & different food particles are done.

The saliva mixed food reaches the stomach. The food containing six rasa is first of all converted into sweet kafatmaka food juice. This awasthapak is called as madhurawasthapak.

**ii) SECOND AWASTHAPAK-**

It starts from lower end of stomach. Different food particles mixed with juice when come in lower end of stomach, at that time with the help of Samanvayu, Jatharagni starts its function that means as differently mixed food
particles reach the stomach invisible function of samanvayu starts, as a result of which Gastric juice, Agni ras from duodenum & pitta from pittashaya is secreted respectively, and different food particles are digested at right site by digestive juices. During this period the digestive juices secreted from stomach to duodenum are usually (Amla) & due to their action on food; food becomes vidagdha also gets anlibhut. This awasthapak is called as Amla awasthapak.

iii) THIRD AWASTHAPAK-

After Amla Awastha pak is made by the digestive principles on food it comes to pachyamanashaya region at that time intestinal digestive juice is secreted because of saman vayu. Achhapitta is secreted and remaining food particles are digested and this digested food juice is absorbed. As a result of this the food juice usually becomes katu. So it is also called as katu awasthapak. After this process of digestion “foodjuice” is again acted upon by dhatvagni & dhatvagni parakriya starts. Food juice, acted upon by Rasagni, is converted into two parts i.e. Prasad & Kitta.

Prasad part is of 2 types –

Poshya & Poshak - The nutrition of Rasdhatu is done by poshya part & poshak part is responsible for the nutrition or formation of next dhatu (i.e. Rakta ) Like this in the body foodjuice, after the action of dhatvagni, does the nutrition of next dhatu. After this, by the action of bhutagni & dhatvagni, this process of Nisthapak or Vipak occurs. It is called as Sukshmapachan.
CAUSES OF AGNIDUSHTI -
- No intake of food, taking food in Ajirnawastha,
- taking food in large quantity
- Vishmashana
- Asaatmya food
- Heavy, cool, extremely dried, contaminated food
- Improper use of vaman, Virechana or snehpana
- Debility by a chronic disease
- Country, period or time & seasonal irregularity
- Holding the urges of micturition & defaecation (Mala & Mutra Vega-Vidharan)

VATA DOSHA VICHAR - (Concept of Vata dosha)
Vata word is made up from the dhatu "Va" by adding "Kta" in it. "Va" means speed & touch, common meaning of which is Vayu. Vayu is the second mahabhuta having the special guna of touch.

NIDANPANCHAK OF AMAVATA

NIRUKTI - Amavata is muscular gender

It is made from 2 words- Aam + Vata.

In this disease both the principles come together and enter the different joints of the body characterised by oedema, pain, etc. The signs are loss of function & produces the disease aamvata. As these two principles come together, by mixing or adding these 2 words- aam & vata - hence the name Aamvata is formed.

Though this disease is not total but in its attacking period it is much more troublesome or difficult as compared to other diseases, so aamvata is called as the king of all joints diseases, which are mentioned in ayurveda.
AETIO-PATHOGENESIS OF RHEUMATOID ARTHRITIS (AMAVATA) IN INDIAN SYSTEM OF MEDICINE

According to Ayurveda, Amavata is a systemic disease where along with the articular symptoms, manifestation of gastro intestinal, cardiac and renal disturbances are quite evident. As regards its aetiology, suggestions have been made that gastrointestinal changes are primary and fundamental. A prerequisite or the first event in
the series of pathogenesis of rheumatoid arthritis is the hypo-functioning of digestive mechanism, that is impaired digestive power. When one having impaired digestion indulges himself in taking diets and exercises which are incompatible, these become harmful for him. If he leads a sedentary life or he happens to do active physical work immediately after taking fatty meals it becomes more harmful. Under these circumstances diet is not fully digested and some product of incomplete digestion is absorbed into the system causing various constitutional and systemic disorders, such product is termed as “Ama” in Ayurveda.

The term “Ama” literally means unripe, uncooked, immature or undigested food, indicating the incomplete processing, due to deficiency of chemical or physical fire. In human beings it refers to incomplete digestion of food due to impaired digestive secretions.

The process of digestion and metabolism is comprehended well in Ayurveda. Specific Factors known as “Agnis” are described to be responsible for the specific changes occurring in the entire course of digestion and metabolism. Impairment of any factor may lead to the formation of abnormal components, which may prove harmful or even dreadful for the human existence. Broadly these Agnis may be classified in two groups, one situated in the gastro-intestinal tract and the other situated in the tissues.

Of course in relation to rheumatoid arthritis (Amavata) the role of impaired digestive mechanism has been focussed as a primary cause. The components of incompletely processed food are absorbed in the body and are taken up by shleshmika tissues. Here these components are further modified into a great extent and are again thrown in circulation. Now it attains the capacity of affecting the target organs along with the vitiation of the doshas of the body. (fig 4)
PATHOGENESIS OF AMAVATA
(RHEUMATOID ARTHRITIS)

PRODUCT OF INCOMPLETE DIGESTION IN G.I.T. DUE TO HYPOFUNCTIONING OFDIGESTIVE MECHANISM (AMA)
PARTICULAR TYPE OF TISSUES IN BODY (SHLESHEMA-STHANA)

IN CIRCULATION

FURTHER CHANGES IN THE SAME (AMA)

VASCULAR AND TISSUE CHANGES (STROTOABHISHYANDA)

CLINICAL MANIFESTATIONS

RHEUMATOID ARTHRITIS (AMAVATA)

Scheme showing the role of incompletely digested food in the aetiopathogenesis of Amavata. The antigenic nature of such substance has been demonstrated.

The nature of this substance “Ama” is described as mucoid type, which obstructs the normal passage of the tissues and vessels leading to congestion and inflammation. Among the organs involved are all the joints viz small and big, synovial or asynovial, central or peripheral. The articular symptoms are stiffness, pain and swelling; in addition there are other systemic manifestations like loss of appetite, anorexia, salivation, bad taste, thirst, nausea, vomiting, gurgling, constipation, pain and distension of abdomen, polyurea, giddiness, syncope, cardiac irregularities, disturbed sleep, lassitude, heaviness and burning sensation in body. The above description is based on Madhava Nidan, a book on clinical medicine written by Madhava in 9th century. Another treatise known as Harit Shamhita has emphasised the precipitation of diarrhoea and arthritis by a common factor “Ama” which is the result of impaired digestion. On the other hand the author of Yogratnakar has observed that with the precipitation of rheumatoid arthritis there is further deterioration in the function of digestive mechanism which aggravates
diarrhoea characterised by presence of undigested food particles and incompletely processed food material leading to the symptoms of mal-absorption.

Shortly it may be concluded that all the Ayurvedic texts have opinion that defective functioning of the digestive mechanism is the ultimate cause of this disease where the gastro-intestinal and articular symptoms both are found simultaneously in the same subject; the aggravation of one group of symptoms may also aggravate the other group. As regards the aetio-pathogenesis some component of the incompletely processed food is absorbed in the system which after further modification is able to produce vascular and tissue changes leading to inflammation in the target organs.

Thus, the concept of intestinal aetiology of rheumatoid arthritis forwarded by Shatin and of other arthropathies found in association with gastro-intestinal disturbances is much closer to Ayurvedic concept. The only fundamental difference between the two approaches are: according to the hypothesis of Shatin gluten induced enteropathy leads to a malabsorption so there is deficiency of essential amino-acids and other elements which contribute to the pathogenesis of rheumatoid arthritis. Thus the involvement of G.I. Tract is a passive phenomenon. On the other hand according to Ayurveda role of intestinal aetiology is active one. It has been suggested that some product of incomplete digestion is absorbed in the system, which has been termed as "Ama" and is able to induce the process of inflammation.

Author has proposed that probably the nature of “Ama” itself may be antigenic or it is able to stimulate the antigen and antibody reaction in the body, thus precipitating the disease process at the onset and exacerbation at the later stage. Thus the role of G.I. tract involvement seems to be active in the causation of this disease.
PATHOGENESIS OF RHEUMATOID ARTHRITIS

GENETIC  STRESS

HYPOPHALAMUS  HYPOPHALAMUS
ANT. PITULARY  ANT. PITULARY

DIEET
1. INGESTION OF GLUTEN
2. RICH DIET
3. UNHYGIENIC DIETETICS

ENTEROPATHY  ENTEROPATHY  ADRENAL CORTEX

MALABSORPTION

IMPEDED BIOSYN
-THESIS OF PROTEIN
IN SYSTEM

COLLAGEN
TISSUE
(AROUND THE JOINT)

ABSORPTION OF
ANTIGEN

(INCOMPLETE PROCESS)
FOOD CONSTITUENT
HAVING ANTIGENIC
PROPERTY
LYMPHOID TISSUE

ANTIBODY
FORMATION

ANTIGEN-ANTIBODY
REACTION

VASCUITIS

FITRINOID

COLLAGEN DISEASES

EXCESSIVE DISSOC-
LUTION OF COL.
-AGEN TISSUE

DISSOLUTION OF
COLLAGEN TISSUE

CHANGES

RHEUMATOID ARTHRITIS

Scheme showing the simultaneous operation of different aetiological factors in the causation of rheumatoid arthritis.
The descriptions of inflammatory changes have been described in Ayurveda in the term of “Abhishayanda”. Literally meaning obstruction of nutrient channels (vascular and tissue) by mucoid substance. This can be interpreted as a typical description of inflammation in general and rheumatoid change particularly.

Recently the role of lysosomes has been focussed on, in the pathogenesis of rheumatoid arthritis. Lysosomal activity is higher in the synovium of rheumatoid arthritis which is capable to explain all the tissue changes occuring in the joint including inflammation.

According to Ayurveda lysosomes are part of “Pachakrasa”, a type of chemical fire situated at tissue level. And the activity of this fire is compared with the gastro-intestinal juice (Jaiharagni) i.e.as the gastro-intestinal juice is able to digest or break down the food in the G.I. tract similarly ‘Pachakrasa’ are able to break down or destroy the tissue when the tissue nutrition is not sufficient. Thus when there is deficiency of gastro-intestinal digestion by the deficiency of digestive juice, leading to mal-absorption hyperactivity of lysosome is quite possible. Therefore, according to Ayurveda lysosomal hyper-activity is truly a corollary of long-term indigestion and mal-absorption, some experiments in this regard have been conducted by the author, of course the interpretations are still awaited.

Thus, it may be concluded that the role of gastro-intestinal disturbance in the aetio-pathogenesis of rheumatoid arthritis is worth consideration and both the prevention and the course of the disease may be influenced effectively by the proper management of gastro-intestinal disturbance.

HETU OR NIDAN-

i) Virudha Aahar Vihar
ii) Mandagni
iii) Excessive sitting or sleeping habits
iv) Exercise done after eating fatty foods.

According to Harit Samhita a person taking heavy diet& ingestion of roots (Kandmula) in excessive quantity are also the aetiologic factors of amavata.
PREDISPOSING HETU-

The principles or aetiological factors which are responsible for production of aam & vata indirectly are the predisposing factors of aamvata.

AAMOTPATTI HETU

- Mandagni person
- Excessive, infavourable, impure, Fatty, cool, visham food (diet)
- To hold the urges of micturition & defaecation.
- To sleep on hard bed.
- Chronic diseases etc.

with these physical reasons jelousy, hatred, greediness, anger, shy feeling, fear, worry, sorrow, moha & Kama etc. these mental factors also play an important role in it. Indigestion of food, mental tension, depression state increase the symptoms of this disease.

VATPRAKOPAK HETU

Ruksh, Sheetal, Visham aahar vihar, malnutrition, trauma on joints, excessive wandering, excessive exercise, Nightawakening, sorrow, fear, worry, to hold the urges of micturition & defaecation, clouds in the sky etc. Vatprakopak factors are also helpful to cause the disease aamvata.

DEFINATION OF VAIRODHIK AAHAR

Any food substance or material which displace the dosha from its own site but does not excrete or expel it outside the body, all these food substances are not good for health.

CONSTITUENTS OF VAIRODHIK AAHAR

1) Deshvirudha 7) Sanskarvirudha 13) Upcharvirudha
2) Kalvirudha 8) Viryavirudha 14) Pakvirudha
3) Agnivirudha 9) Kosthavirudha 15) Sanyogvirudha
4) Matavirudha 10) Avasthavirudha 16) Hridayavirudha
5) Satmyavirudha 11) Kramavirudha 17) Sampatvirudha
All these are aam producing factors.

**PURVARUPA** - (PRESTAGE)

In Ayurved samhita, purvarupas are not mentioned clearly, But in purvarupa of amavata we get some signs of disease. We get symptoms of aamotpatti & samvayu, like

1) Agnimandya  2) Aalasya  3) Angamarda
4) Tandra  5) Aantrakujan  6) Shula
7) Toda  8) Peedan  9) Veshtan
10) Graha

The above symptoms increase in the morning, at night and in cloudy wheather.

**RUPA - COMMON SYMPTOMS**-

i) Angamarda  ii) Aruchi  iii) Trushna
iv) Aalasya  v) Gaurav  vi) Fever(Jwara)
vi) Apak  vii) Shunyata
ix) Unable to sit or stand.

x) After involvement of sacral joint sense of pain in lumbar region (Katipradesh)

**SYMPTOMS OF PRAVRUDHA AMAVATA**-

In pravrudha stage of aamvata- there is painful oedema in upper limbs, lower limbs, head, ankle, sacral, knee & femur joints. Beside this, wherever the aamdosha reaches in the body, there is a feeling of scorpion bite like pain.

Agnimandya, Salivation, Aruchi & gaurav is present. The utsah Shakti is destroyed, Vairasya in mouth & burning sensation in the body. Frequency & quantity of micturition is increased, heaviness in abdomen & pain in abdomen is present. Nidraviparyaya (sleep disturbances), thirst, vomiting, vertigo fainting, Hridgraha, Flatulence is also present. Body becomes unfunctionable & there is presence of noises in abdomen & gases in abdomen.

**SYMPTOMS ACCORDING TO DOSHA**-
Sharangdhara has mentioned 4 types
i) Vataj  ii) Pittaj  iii) KafaJ  iv) Sannipataja

Basically in all the diseases three doshas are present in more or less quantity. But the powerful manifestation of particular dosha in the presenting symptoms leads to the classification of disease by that sub type.
<table>
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<tr>
<th>Samanya</th>
<th>Madhavkar</th>
<th>Yog Ratnakar</th>
<th>Harita</th>
<th>Pravrudha Lakshana</th>
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<tbody>
<tr>
<td>1) Angamarda</td>
<td>+</td>
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<td>1) Flitting Pain</td>
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<td>2) Aruchi</td>
<td>+</td>
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<td>2) Swelling over joints</td>
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<td>3) Trishna</td>
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<td>3) Agninandya</td>
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<td>4) Alasyam</td>
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<td>4) Prasek</td>
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<td>5) Aruchi</td>
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<td>8) Vairasya</td>
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<td>11) Kukshi Kathnya</td>
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<td>12) Grahani Dosham</td>
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<td>21) Anaha</td>
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Chart - Types of Amavata

AMAVATA

Madhavkar, Yog-Ratnakar, Bhavaprakash

1. Vataj
2. Pittaj
3. Kaphaj
4. Samsargaj
5. Sannipatik

1. Vishthambi
2. Gulmi
3. Snehi
4. Pakva or Sarwang

Harita
Madhavnidan has mentioned this on the basis of anu-bandha.

In the vataja aamvata, vataja symptoms like severe pain & insomnia are present. In pitflaja aamvata severe burning sensation, redness of involved joint, excessive thirst these pittaja symptoms are present. In kafaj aamvata, there is a sensation as if the joints & other parts of the body are covered by a wet cloth. or stabdhata, heavyness, itching, & increased frequency of micturition these kafaj symptoms are present.

**TYPES OF AMAVATA**

Madhavnidankar has mentioned the above doshaj types of aamvata. Besides this Harit has mentioned 5 types of aamvata. On the basis of differentiation of symptoms in Harit Samhita.

1) **VISHTAMBHI** - constipation, flatulence, pain in bladder in presence of these symptoms we must not use oily (Shehan) medicines but we must use digestive (pachan) medicines.

2) **GULMI** - If some sounds are present in abdomen, pain, like gulma, heaviness in lumbar region, that gulma is called as aam.

3) **SNEHI** - If there is Snigdhata & Heaviness in body.

4) **PAKVA** - In which yellow (ish) coloured, waterless Blackish aam comes out, absence of pain in hypogastric region (Basti pradesh), Vertigo, Malaise are seen. That is known as pakva aamvat.

5) **SARVANGGAT** - Pain in back, thoracic region, Lumbar region, tenderness in hypogastric region. Abdominal sounds like gulma, oedema, heaviness in head, aam is in more quantity that is sarvanggat aamvat.

**SAMPRAPTI**

Aamras produced due to virudh aahar vihar factors by stimulation of vayu enters in the kafa sthan like stomach joint, thorax, head & throat. If it is improperly digested or more worse, then this aamras will reach in vessels (arteries) by the
stimulation of vayu. It mixes all 3 doshas present in Dhamni & becomes more contaminated, or different colours, sticky (pichhilt) & enters in various strotasas of the body & produces kleda in the strotasa resulting in weakness or debility & heaviness in heart.
Chart: Amavasata Avastha

1. Jwaravastha
2. Jwaramukta Avastha

1. Sandhi Vikruti
2. Hrid Graha
the body & produces kled in the strotasa, resulting in weakness or debility & heaviness in heart. This aam is responsible for various diseases hence it is very dangerous. Ama & vata come together & enters in the koshta, sacral regions, & in joints and causes stiffness & the body. This is called as amavata.

PROGNOSIS OF AMAVATA

Amavata produced in Balwan person from one dosha & involving minimum joints & new rheumatic oedema is curable. Amavata produced by the combination of 2 doshas & present in more than one joint is hardly curable.

While amavat produced by all 3 doshas, in debilitated person, in rainy or winter season & situated in all joints is incurable.

COMPLICATIONS -

In rheumatoid arthritis like rheumatic fever sometimes there may be heart deformity specially in mitral or bicuspid valve & this deformity may remain constant even after the disease is cured. The patient of amavata always remains under mental tension as a result of which after some time they may suffer from high B.P., hyperacidity. Insomnia & psychophysical diseases.

UDARKA-

i) Heart disease (Valvular disease)

ii) In some patients structural deformity in limbs are noticed.