

# DHAMANI PRATICHAYA (ATHEROSCLEROSIS) EVENTUATING VATA VYADHI (DISORDERS CAUSED DUE TO VATA)

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## **ABSTRACT**

Knowingly or unknowingly indulging in Erroneous food and habits proved to be the major cause of ill health. Over nourishment with positive energy balance leading to the state of *samtarpana* is well known to cause plethora of diseases categorized as *santarpanottha vyadhi*. Variety of dietary, behavioral and psychological factors contribute to the morbid accumulation of *kapha* and *medas* leading to *shonitabhishyandana*. Further the morbid state of *shonitabhishyandana* by the *upalepa* of the *dhamani* culminates in the development of *dhamani pratichaya*. Eventually by way of *sirajagranthi* the *dhamani pratichaya* ends up in *margavarana* and is the major cause of *vata vyadhi*.

Key words: Shonitabhishyandana, dhamani pratichaya, margavarana, vata vyadhi.

#### **INTRODUCTION:**

Margavarana (Encapsulation) and dhatu kshaya(Depletion of dhatu) are the two major causative comorbidities of vata vvadhi<sup>1</sup>. Either due to the effect of *nidana* due to the comorbidities of margavarana and dhatu kshaya, patient may suffer from variety of vata vyadhi and may be categorized as kevala vataja vata vyadhi, samsrishta doshaja vatavyadhi, and avarana vata vyadhi. Margavarana is formed by the component terms marga and avarana. Marga refers to channels in general. In the Sanskrit literature the word avarana is meant as avarodha and is translated as obstruction. The distinct form of the channelopathy characterized by obstruction, affecting the circulation of physiological entities within it and is popularly known as margavarana. Vata dosha gets obliterated within this channel affected with margavarana. Due to the obstruction, the momentum of the

vata dosha gets affected and is known as vegapratibandha. Due to impairment in the momentum of circulation vata dosha leads to its agitated phase and eventually results in morbidity of vata dosha. To be clearer, the accumulation of morbid kapha and pitta dosha within the channels or marga causes obliteration and is known as avarana. Due to this the momentum of the vata dosha circulating in these channels are affected and this impairement of momentum is also termed as avarana<sup>2</sup>. To be more precise, this morbidity of vata dosha occurs proximal to the obstruction. The influence of margavarana is not limited proximal to the obstruction but distal to the obstruction, the circulation of the nutrients are affected and hence the body part distal to the obstruction is deprived of nutrition and hence suffers from pathology of dhatu kshaya. The pathogenesis of avarana is not restricted to

this margavarana, rather any type of morbid *vata dosha* suppressing the activity of other type of vata dosha is also known as avarana. Characteristically this is known as *anyonyavarana*<sup>3</sup>. In this context the term avarana refers to suppression of encapsulation. Further the clinical manifestation of the anyonyavarana is very unique. The sub type of *vata dosha* encapsulating the other subtype of vata dosha and exhibits the symptoms of aggravation. Contrary to this, the subtype of *vata dosha* getting encircled shows symptoms of suppression. Or else to say, obliteration or passage, obstruction to the circulation, inhibition of momentum of vata dosha, encapsulation of sub type of vata dosha, suppression of the activity of a sub type of vata dosha and masking the functioning of the sub type of vata dosha all are said by the term avarana.

Margavarana as etiology of vata vyadhi: Balance between the consumption of food and its utilization in the form of physical exercise establishes the health. If the consumption of food is excess in comparison to its utilization in the form of physical activity, then the excess of nutrition acts as an etiology of the illness and is referred as samtarpana(excessive nourishing) nidana. Consumption of excessive food in the form of sweets and greasy foods, in conjunction with lack of physical activity and day sleep causes accumulation of kapha and medas in abnormal amounts in the initial rasa dhatu. The accumulation of the *kapha* and *medas* within the channels of rasa and rakta dhatu predisposes to narrowing and obliteration of the same. This obliteration causes agitation and morbidity of vatadosha. Thus vitiated vata dosha manifests as vata vyadhi, and the resulting illness may involve the morbid vata dosha alone, or may be associated with pitta and *kapha* dosha, or else the *vata vyadhi* may establish with the pathophysiology of avarana.

The *margavarana* is one among the major cause of vitiation of vata dosha. the component terms marga and avarana together forms margavarana. The word marga in general refers to any channels within the body, but contextually it refers to the vessels carrying the rasa and rakta dhatu. Excessive consumption of sweets and greasy foods in conjunction with lack of physical activities causes morbid accumulation of the kapha and medas in the rasa dhatu. This morbid accumulation tends to get adhered to the vessel wall causing its thickening, tortuosity, stiffness as well as narrowing. This change in the vessel wall is referred as dhamani pratichava(atherosclerosis). The event of siraja granti finally culminates in more serious *margavarana*. Since the channels of circulating rasa and rakta dhatu are ubiquitously distributed in the body, event of margavarana can happen in any part of the body. Accordingly the symptoms of margavarana may vary and hence manifests as different diseases in different part of the body. Corroborating the same it is said in the text that hrudroga, unmada, vatarakta, gulma, mutraukasada are all said to be caused by the pathology of margavarana.

Shonitabhishyandana is the initial of margavarana. Excessive event consumption of food against lack of physical activities forms the samtarpana nidana. This etiology results accumulation of kapha and medas within the vessels of rasa dhatu and rakta dhatu. Consuming combination of foods having mutual contradictory qualities also results in morbid accumulation of kapha and

medas. Dish prepared with milk and fish is just an example of unhealthy combination 4. It is worth mentioning here that this morbid accumulation of kapha and medas with the vessels of rasa and raktadhatu is termed as shonitabhishyandana(dyslipidaemia). It is said that dhamani pratichaya and margavarana are the sequel of this shonitabhishyandana.

Dhamani pratichaya is enlisted as one among the 20 nanatmaja diseases of kapha dosha<sup>5</sup>. The pathogenesis begins with the morbid accumulation of kapha and medas in the blood. This excess of kapha and medas in the blood is referred as shonitabhishvandana. Thus morbid shonita circulating in the dhamani predisposes to upalepa or adherence of kapha and medas within the wall of the dhamani<sup>6</sup>. Due to the abnormal accumulation of the kapha and medas within the wall of the dhamani leads to remodeling of the dhamani. Narrowing, thickening, tortuosity and lack distensibility is the change that occurs in dhamani due to pathological remodeling mediated by the adherence of kapha and medas. This pathological change in the dhamani is known as dhamani pratichaya. Eventually these changes in the dhamani precipitate the organization of the blood within the dhamani and are the events of sirajagranthi<sup>7</sup>. The formation of the sirajagranthi leads to margavarana or obliteration of the dhamani. margavarana is regarded as the root cause of many diseases including vata vyadhi. In the realm of conventional medicine it is said that sedentary life style is the major cause of morbid accumulation of fat in the body leading to metabolic syndrome. It is characterized by dyslipidemia which in

long run leads to atherosclerosis. Again the atherosclerosis predisposes the thromboembolismand complete obliteration of the blood circulation within a vessel. Sedentary life style leading to dyslipidemia is characterized by abnormal levels of serum lipids. Elevation of LDL and total cholesterol as well as decrease of HDL levels in the serum characterize dyslipidemia and are comparable to the shonitabhishyandana. Dyslipidemia leading to atherosclerosis with endothelial dysfunction parallels with the description of *dhamani* pratichaya<sup>8</sup>. To be clearer, the initial step is infiltration & entrapment of low density lipoprotein in blood vessel resulting atheroma formation. This is referred as dhamaniupalepa. There is compensatory enlargement of vessels with increased diameter as well as reduced elasticity and thereby narrowing of the lumen. Dhamani pushtata, vistara abhava indicates vessel remodeling. Such atheromatous plagues are vulnerable to spontaneous rupture leading to acute thrombosis, occlusion & infarction. Total event is indicated by siraja granthi& eventual *margavarana*.

The anatomical structure *dhamani* meant for circulation of rasa rakta dhatu is ubiquitously distributed in the body. Hence the *dhamani pratichaya* is regarded as a generalized pathology. The final event of margavarana can therefore happen in any part of the body. The clinical presentation of the margavarana thus is in accordance with the site involved<sup>9</sup>. In margavarana hinders general. the movement of vata dosha within the dhamani leading to its vitiation. This morbidity is likely to happen proximal to the site of *margavarana*. Thus vitiated vata dosha, tend to disturb the pitta and kapha dosha normally present at the site of margavarana. Secondly due obstruction, the circulation of rasa and rakta distal to the margavarana is also affected. Hence the body parts distal to the margavarana are deprived of essential nutrition leading to their decay. More to add, the event of margavarana is spontaneous and the clinical symptoms develop dramatically with no any apparent cause. This nature of the consequence of margavarana is referred as animitta darshana. It is worth mentioning here that, though the *dhamani pratichaya* is slow process, the final event of margavarana is spontaneous and hence the dramatic establishment of clinical presentation. It is also accepted that the illness due to margavarana is more serious, difficult to cure and may prove fatal at times. In any event of margavarana it is rational to add the treatment targeted at the kapha and medas along with the medication of illness due to margavarana. In case of vata vyadhi due to margavarana, vata vyadhi requires snigdha treatment and margavarana demands ruksha treatment thus posing contradiction in planning the treatment. Hence a balanced approach of oleation that does not cause kapha and medas i.e. anabhishyandi snigdha chikitsa is advocated in the text as treatment of vata vyadhi due to margavarana.

Schematic representation of *vatavyadhi* due to *margavarana*:

The progressive events of eventuating *vata vatavyadhi* includes:

Samtarpana Nidana – sedentary life style shonitabhishyandana – Excess kapha & medas in blood

Dhamani upalepana – adherence of kapha & medas within the dhamani

Dhamani pushtata – Enlargement & tortuosity of dhamani

Dhamaneenam vistarabhava: - Reduced distensibility of dhamani

Siraja granthi : -formed elements within the dhamani

Margoparodha – obliteration of dhamani Dhatu upashoshana – deprivation of nutrition distal to margoparodha

Dhatukshya leading to vatavyadhi

Samtarpana nidana leading to kapha dosha prakopa – causes medovriddi – sthana samshraya in shonita vaha srotas in shiras resulting in shonitabhishyandana – rasa rakta marga upalepana – dhamani pratichaya – margavarana – vatavyadhi.

Disorders of margavarana:

Scanning the literatures unravels the plethora ofdiseases caused bv margavarana. margavarana affecting the shiromarma leads to shiromarmabhighata and unmada. Hridaya marma when affected by the *margavarana* patient suffers from hritsula. Mutraukasada is one among the *mutraghata* and is the result of margavarana. The event of margavarana predominantly involving the legs leads to vatarakta. In general over weight and obesity leads to *margavarana* and in turn more serious, fatal diseases including vata *vyadhi*. In all these conditions it is said that rectifying the *kapha* and medas which is the root cause of all these diseases and thereby preventing the event margavarana is most rational approach in this condition.

# Margavaranajanya vata vyadhi:

In the context of therapeutic indications of eranda taila (Ricinus communis Linn), the relation between the vata vyadhi and margavarana due to kapha and medas is ascertained. It is said that, pakshaghata is an illness caused by margavarana due to morbid accumulation of kapha and medas. More to add, injury to the marma is a major etiological factor to vata vyadhi.

Injury may be exogenous like trauma or endogenous. Endogenous injury to the marma refers to incriminatory effect of marma by the morbid dosha. Morbidity of margavarana when involves the Shiras causes multiple vvadhi. vata facial Emprosthotonos, paralysis, distortion of the eyes, confusion, head paresis / paralysis, Cough, breathlessness, dislocation of temporomandibular joint / lock jaw, aphasia, stammering, ptosis, twitching in the maxillary region, flexion of the body parts, excessive salivation, aphonia, dysphonia and distortion of mouth are the clinical manifestation of *shiromarmabhighata*. This description of margavarana causing shiromarmabhigata reminds the events of stroke syndrome. Even the events of margavarana may lead to episodes of vata vyadhi as in ardita. Adding to the list, margavarana involving the kati leads to the clinical manifestations of khanja and pangu. In all these clinical states it is required to plan the balanced treatment to rectify the margavarana and to alleviate the morbidity of vata dosha. Further it is said that if the treatment of margavarana is ignored this may lead to occurrence of several serious diseases like hridroga (ischemic heart disease), pliha (splenomegaly), vidhradhi (abscess), gulma (mesenteric ischemia) and atisara (ischemic colitis).

Treatment *of vatavyadhi* due to *margavarana*:

Margavarana is an ongoing pathology. One event of margavarana does end the pathophysiology. Hence it is important to identify and treat the shonitabhishyandana which is the root cause of margavarana. At the same time the treatment of vatavyadhi should be advocated. Apatarpana line of treatment is ideal to

arrest the progress of *shonitabhishyandana* leading to *margavarana*. Contrary to this *samtarpana* line of treatment is required to rectify the morbidity of *vata dosha*. Thus a balanced approach of *samtarpana and apatarpana* treatment is the crux of managing *vata vyadhi* due to *margavarana*. The same is listed in the following paragraphs.

# 1. Nidana parivarjana:

Excessive accumulation of *kapha* and *medas* is the root cause of the illness; hence the patients are persuaded to avoid heavy, nutritious, greasy foods and sweets. Patient is also encouraged to increase the physical exercise to match the food intake. Dishes prepared from the *yava* should be preferred in the diet. These are the procedures of *shamana langhana* and are effective in reducing the risk of shonitabhishyandana<sup>10</sup>.

# 2. Shonithabhishyandanahara chikitsa:

Shonitabhishyandana can be treated by oral medication with shilajathu loharasayana, guggulu, gomutra, triphala, rasanjana and madhu. Virechana and lekhanabasti are ideal shodhana procedures in this condition<sup>11</sup>

# 3. Anabhishyandhi snigdha chikitsa:

While *snehana* is indicated in *vata vyadhi*, *the* same is incriminatory in states of *shonitabhishyandana* and *margavarana*. Hence the *snehana* that does not cause *shonitabhishyandana* is preferred in *vata vyadhi*. The medicated ghee processed with drugs that alleviate the *kapha* and *medas* like *guggulu* is referred as *anabhishyandi sneha*. Such medicated ghee should be used for the purpose of *shodhana and shamana* treatment.

#### 4. Srotas shuddikaraka chikitsa:

Obliteration to the rasa *rakta marga* is the pathology and hence every attempt should be made to rectify this blocked *srotas*. This may be achieved by measures like *shodhana chikitsa* ( *mridu sramsana chikitsa*) anulomana chikitsa and niruha basti including yapana basti

# 5. Kaphapitta avirudda chikitsa:

At the site of *margavarana*, morbidity of *kapha* and pitta *dosha* secondary to vitiated *vata dosha* is invariable. Needless to say any attempt of treating *vata dosha* should not worsen the morbidity of *kapha* and pitta *dosha*. In this regard measures like oral medication with *eranda taila* added with milk or meat soup, *yapana basti*, *ubhayarthakari basti* and *anuvasana basti* are effective<sup>12</sup>.

### 6. Rasayana chikitsa:

Dhamani pratichaya and margavarana is a slow progressive lingering disease. Hence it is ideal to plan vyadhi hara rasayana to sequels prevent the shonitabhishyandana and margavarana. added to this partial recovery is the rule of margavaranaja vata vyadhi, therefore addition of rasayana is always beneficial in such lingering clinical conditions. Shilajathu loha rasayana, bhargava prokta rasayana, abhaya amalaki rasayana are the vyadhi hara rasayana in margavarana as well as vata vyadhi with proven efficacy<sup>13</sup>.

## **CONCLUSION**:

Sedentary habits predisposes to *shonita* abhishyandana. This in turn causes dhamani pratichaya and eventually causes margavarana. Thus evolved margavarana is basically a disease of morbid kapha dosha. This margavarana may lead to plethora of illness depending upon the site and include vata rakta, gulma, atisara, mutraukasada, hritshula, unmada and shiro marmabhighata. Dual approach of

rectifying both the *margavarana* and *vata vyadhi* is the rational approach. Accordingly the *margavarana* is best treated with *mridu virechana*, *lekhana basti*, *anuvasana basti*, *and rasayana chikitsa*.

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