

COMPREHENSIVE STUDY OF AVABAHUKA (FROZEN SHOULDER) – A REVIEW ARTICLE

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ABSTRACT

Life deprived of movement is the worst tragedy that can arise in any living organism. That can be one of the main reasons for Ayurvedic literature for considering *Vatavyadhies* more important compared to disorders caused due to morbidity of other *Doshas*. Avabahuka is one among the 80 types of *Vatavyadhi* which affects the normal functioning of the upper limbs thereby the normal routine lifestyle of an individual is affected too. *Avabahuka* is the disease of *Amsa Sandhi* (shoulder joint) where *Amsamarma* is also involved. The only classical symptom explained regarding *Avabahuka* is *Bahupraspanditahara* (restricted movement of affected shoulder). Whereas, some other symptoms clinically observed were pain in the affected shoulder, stiffness, sleeplessness, muscle wasting etc. On

analysing the etio-pathogenesis, it can be understood that the disease *Avabahuka* manifests due to *Marmaghata*, *Dhatukṣaya* (due to tissue loss) as well as *Margavrodha* (due to obstruction of vata dosha by one or more doshas). While comparing with modern science, most of the shoulder joint pathologies such as Adhesive capsulitis, Rotator cuff Injuries, Bicipital tendinitis, Cervical spondylosis, Osteoarthritis of the shoulder joint etc. can be

incorporated under the broad heading 'Avabahuka'. This article aims to deliver a summary of the nature of the disease and the widely accepted treatment of this condition based on other researches.

KEYWORDS: *Avabahuka, Vata Vyadhi*, Frozen shoulder.

INTRODUCTION

Among all the joints of the human body the shoulder has the greatest range of motion. This allows complex movements and functions to be carried out in day-to-day life. The working comprising of hardworking agriculturists, laborers, long hour working on laptop & tablets, driving etc. and hence, the prevalence of *Avabahuka* is relatively high. *Avabahuka* as an ailment was first introduced by *Acharya Sushruta* (500 B.C.) where pain and stiffness of shoulder joint leads to severely restricted movement of the shoulder joint. This problem puts a huge amount of strain on patients interfering productivity of the life. *Avabahuka* is a condition caused by vitiated *Vata Dosha*, localizes in *Amsapradesh* (shoulder region) that results in the *Samkocha* of *Siras* leading to the manifestation of *Bahu Praspandana Haratvam*. *Sushruta Samhita* and *Ashtanga Hridaya* has described *Avabahuka* under *Vata Vyadhi Adhikara*. *Avabahuka*, as a separate entity is not explained in *Charaka Samhita*. However, *Charaka Acharya* has mentioned a term called *Bahushirshagatavata*.^[1] *Amsa Shosha* (muscular dystrophy around shoulder joint) and *Avabahuka* are the two separate entities mentioned in *Madhava Nidana*.^[2]

Nirukti (Derivative significance) of Avabahuka

Avabahuka is composed of two words "Ava or Ava" and "Bahuka".^[3] The very word *Ava* means 'Viyoga' 'Vikrutau' which means separation or dysfunction and the very word 'Bahu' meaning the upper limb which is one among the *Sadargas*. According to Sanskrit literature the word *Avabahuka* means as bad stiffness and muscle spasm in the arm.^[4] The prefix 'Ava' is used in *Avabahuka*. *Apabahuka* and *Avabahuka* literally bear the same meaning.

PARIBHASHA OF AVABAHUKA^[5]

"Amsadesasthita vayu soshayitvasambandhanam Siraschakuncha tatrastha janayetavavahukam"

Avabhuka is a disease caused by *Kupita Vata Dosa* localizing around the *Amsa Pradesh* causing the *Shoshana* of *Amsa Sandhi*, thereby leading to *Akunchana* of *Sira* at that site and giving rise to *Bahupraspandanaharatwam*.

NIDANA

Vata is invariable in *Avabahuka* and as it is a *Vatavyadhi*, the etiology of *Vatavyadhi* in general also holds for *Avabahuka*. Acharya Charak and *Bhavaprakash* have explained the etiology of *Vatavyadhi* in detail. All the etiological factors are subdivided into *Aharaja*, *Viharaja*, *Agantuja*, *Manasika* factors. The general *Vatavyadhi* etiological factors are as listed in the below tables.

NIDANA	CHARAKA	SUSHRUTA	A.H	M. Ni	Y. Ra	B. Pr
<i>Rasa Janya</i>						
<i>Kasaya</i>	-	+	+	-	-	+
<i>Katu</i>	-	+	+	-	-	+
<i>Tikta</i>	-	+	+	-	-	+
<i>Guna Janya</i>						
<i>Ruksha</i>	+	+	+	+	+	+
<i>Laghu</i>	+	+	-	+	+	+
<i>Sheeta</i>	+	+	-	+	+	-
<i>Dravya Janya</i>						
<i>Vallura</i>	-	+	-	-	-	-
<i>Varaka</i>	-	+	-	-	-	-
<i>Shuskha Shaka</i>	-	+	-	-	-	-
<i>Uddalaka</i>	-	+	-	-	-	-
<i>Neevara</i>	-	+	-	-	-	-
<i>Mudga</i>	-	+	-	-	-	-
<i>Harenu</i>	-	+	-	-	-	-
<i>Kalaya</i>	-	+	-	-	-	-
<i>Nishpava</i>	-	+	-	-	-	-

Viharaj Nidana of Vatavyadhi

NIDANA	CHARAKA	SUSHRUTA	A.H	M. Ni	Y. Ra	B. Pr
<i>Ati Vyayama</i>	+	+	+	+	+	-
<i>Langhana</i>	+	+	-	+	+	-
<i>Plawana</i>	+	+	-	+	+	-
<i>Atyadhva</i>	+	-	-	+	+	-
<i>Pradhavana</i>	-	+	-	-	-	-
<i>Prajagrana</i>	-	+	-	-	-	-
<i>Atyuchcha Bhashana</i>	-	-	+	-	-	-
<i>Balavad Vighraha</i>	-	+	-	-	-	-
<i>Abhigata</i>	+	+	-	+	+	+
<i>Marmaghata</i>	+	-	-	+	+	-
<i>Bharaharana</i>	-	+	-	-	-	-
<i>Dukhashayya</i>	+	-	-	+	+	+
<i>Dukhasana</i>	+	-	-	-	-	-
<i>Gaja, Ushtra, Ashwa, Sheeghrayana</i>	+	+	-	+	+	-

Mansik Nidana of Vatavyadhi

<i>NIDANA</i>	<i>CHARAKA</i>	<i>SUSHRUTA</i>	<i>A.H</i>	<i>M. Ni</i>	<i>Y. Ra</i>	<i>B. Pr</i>
<i>Atichinta</i>	+	-	+	+	+	+
<i>Shoka</i>	+	-	+	+	+	+
<i>Krodha</i>	+	-	-	-	-	-
<i>Bhaya</i>	+	-	-	-	-	+
<i>Ati Raktasravana</i>	+	-	-	+	+	-
<i>Ati Dosharana</i>	+	-	-	+	+	+
<i>Dhatukshaya</i>	+	-	-	+	+	+
<i>Rogatikarshana</i>	+	-	-	+	+	+

PURVAROOPA

Avyakta Lakshana (unmanifested symptoms) are the *Poorva Rupa* of *Vatavyadhi*.^[6] While commenting upon this word, *Chakrapanidatta* mentions that *Avyakta* means *Alpa* or *Ishat Vyakta*.^[7]

ROOPA

The *Vata* located in shoulder girdle causes the wasting of *Amsa Bandhana* (musculature) and *Sankocha* (contracture) of *Sira* (veins) in shoulder joint giving rise to *Sthamba* (stiffness) & *Bahupraspandanahara* (restricted range of motion).^[8] The list of references in various texts regarding the symptoms is depicted in the below.

<i>Lakshana</i>	<i>Sushruta</i>	<i>A.H</i>	<i>M.Ni</i>	<i>Kalyankara</i>	<i>Vangasena</i>
<i>Bahu Praspandanahara</i>	+	+	+	+	+
<i>Amsabandhan Shoha</i>	+	+	+	+	+
<i>Stambha</i>	+	+	+	+	+
<i>Shoola</i>	-	-	-	-	+

Acharya Dalhana commented that the *Amsa* means *Bahu Shira*, *Amsa Pradesha* means around the *Bahu Shira*, and *Amsa Bandanam* means the *Shleshaka Kapha* which resides in the joints.^[9] *Nyaya Chandrika* quotes that the aggravated *Vata* due to *Dhatukshaya* further causes the *Amsa Bandhana Shoshana* and exhibits the *Avabahuka*.^[10] *Madhukosha Vyaakhya* classifies *Avabahuka* as of two types: *Vatajanya* and *Kaphajanya*.^[11]

Considering all the above symptoms, *Avabahuka* can be categorized as a local disease rather than systemic disease and its cardinal features are as below:

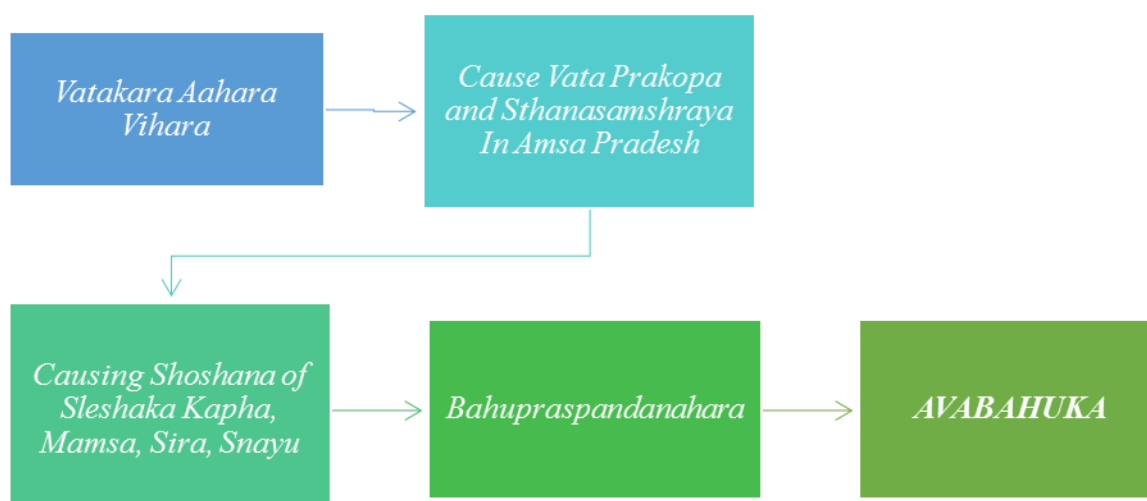
1. *Bahupraspandithara* (restricted range of motion)
2. *Amsabandhana Shosha* (wasting of shoulder muscles)
3. *Sira Akunchana / Stambha* (stiffness)

4. Shoola (pain)

The word *Bahupraspandahara* has three terms: *Bahu*, *Praspandana* and *Hara*. The word *Bahu* means, *Urdhva Shakha* i.e., whole upper limb, shoulder.^[12] *Dalhana's* commentary suggests that the word *Praspandana* means *Chalana* or movement which is considered as normal function of *Vyana Vayu*^[13] and *Chesta* means *Akunchana* (contraction), *Prasarana* (extension) etc. functions.^[14] These functions are maintained by *Vyana Vayu* in the limbs.^[15] The word *Hara* means impaired/loss/difficulty. Thus, in the present context *Bahupraspandahara* may be taken up as difficulty in the movement or impaired or loss of movement of upper limb and the function of the joint.

SAMPRAPTI (Pathogenesis of Avabahuka)

Acharya Sushruta said that vitiated *vata* around the shoulder joint depletes (*Shosh* of *Shleshamaka Kapha*) structures or tissues in and around it and vasoconstriction of vessels leads to pain and stiffness of the joint ultimately results in restricted shoulder movement.^[16]



Samprapti Ghataka

Udbhava Sthana: *Amapakwashaya*

Adhisthana: *Amsa Pradesh*

Vyakta Sthana: *Bahu*

Dosha: *Vyana Vata, Shleshaka Kapha*

Dushya: *Sira, Snayu, Mamsa, Kandara, Asthi*

Srotas: *Mamsavaha, Asthivaha*

Sroto Dushti: Sanga

Roga Marga: Madhyam

Vyadhi Swabhava: Chirakari, Ashukari in case of Abhighataja

SADHYA ASADHAYATHA

There is no evidence of *Sadhya-Asadhyata* of *Avabahuka* in the *Ayurvedic* classics. *Avabahuka* is considered as *vata vyadhi*, which is a “*Maharoga*” and *Vata Vyadhi* are generally very difficult to cure inspite of effective treatment, will not yield good results, especially when it is associated with *Mamsa Kshaya*.^[17]

Sushruta, Madhavakara, Bhavprakash, Vagabhata and *Yogratnakar* say that *Suddha Vataj Roga* is *Krichra Sadhya*, *Dhatukshaya* is *Asadhya* and *Amsaragaja* is *Yapya*.^[18] *Charaka Vata Vyadhi Chikitsa* has mentioned that all the *Vata Vyadhi* after interval of one year becomes *Kricharasadhya* or *Asadhya*.^[19] Hence can conclude that *Avabahuka* in its initial stage will become *Sadhya* and is *Kricharasadhya* or *Asadhya* after a certain period of time.

UPADRAVA

No specific *Upadrava* of disease is available in literature. *Acharya Sushruta* has described *Upadravas* of *Mahagadas* including *Vata Vyadhi* as *Pranakshaya*, *Mamsakshaya*, *Jwara*, *Atisara*, *Moorcha*, *Trishna*, *Hikka Chardi*, *Swasa*, *Sootha*, *Kampa*, *Suptatwacha*, *Adhmana*, *Bhanga* and *Antah Ruja*.^[20] So, *Amsashosha* stated by *Acharya Sushruta* can be deliberated as *Upadrava* of *Avabahuka* as told by *Vijayarakshita*.

SAPKESHA NIDANA^[21]

Avabahuka should be differentiated with the following diseased conditions that affect the upper limb.

- 1) *Vishwachi*
- 2) *Bahu Shosha*
- 3) *Ekangavata*
- 4) *Sandhigata Vata* of *Bahu*

	<i>Avabahuka</i>	<i>Vishwachi</i>	<i>Amsashosha</i>	<i>Ekgangavaa</i>	<i>Sandhigata vata</i>
<i>Nidana</i>	Kaphavrita Vata	Suddha Vataj	Vataj	Vataj	Vataj
<i>Adhisthana</i>	Amsasandhi	Bahu	Amsasandhi	Murdha	Any Sandhi maily Janu Sandhi
Lakshana					
<i>Bahupraspandta Hara</i>	+	+	+	+	May occur
<i>Shoola</i>	Locally in Amsa Sandhi	Radiates from Tala Pradesh to Bahupristh	-	-	-
<i>Amsashosha</i>	May occur in later stage of the disease	May occur in later stage of the disease	Cardinal feature	May occur in later stage of the disease	May occur
<i>Shotha</i>	May occur sometimes	-	-	-	+
<i>Atopa</i>	May occur sometimes	-	-	-	+

General Treatment of Avabahuka

The line of management in the ayurvedic therapy is Brumhana Nasya, Paschadbhakta Ghrutapana, *Snehana* (oleation), *Swedana* (sudation), *Basti* (therapeutic emema), *Shiro-Basti*, *Nasya* (nasal instillation), and all *Vatashamaka Ayurveda* preparations. *Sushrutacharya* advised *Vatavyadhi Chikitsa* for *Avabahuka*, except *Siravyadha*. *Chikitsa-Sarasangraha* advised *Nasya*, *Uttarabhaktika Snehapana*, and *Sweda* for the treatment of *Avabahuka*.

1. **Nidana Parivarjana:** Sushruta has given the importance of *Nidana Parivarjana* as first line of treatment.^[22]
2. **Abhyanga:** By applying oil on the particular site of the body, the Taila (oil) entering into the body and nourishes the body tissues and improve circulation. The influence of massage on the circulation is very helpful in eliminating pain after injuries.
3. **Swedana:**^[23] It does the dilation of the vessels thus by improving blood circulation. In *Vata Vyadhi*, various types of *Sweda* are used like *Pinda Sweda*, *Nadi Sweda*, *Avagaha Sweda* etc. Among them *Nadi Sweda* is mostly used practically.
4. **Virechana:** Mild *Virechana* is advised in *Vatavyadhi*^[24] as well as in *Avabahuka*.
5. **Basti:** Since *Vata Dosha* is origin from *Pakwashaya*(colon), *Basti* helps in pacifying the *Vata*.^[25-26]
6. **Agnikarma:** *Sushruta* and *Vagbhata* have advised *Agnikarma* in the diseases like *Snayugatavata* and *Sandhigatavata*(osteoarthritis).^[27]
7. **Siravyadha:** Except in *Dhatukshayajanya Avabahuka*, *Sushruta* advises *Raktamokshana* in the form of *Siravyadha* at mid of the shoulder joint region.^[28]

8. **Nasya:**^[29] The administration of medicine or medicated oil through the nose is known as *Nasya Karma*. It gives the strength to neck, shoulders, chest and increase vision. Thus, *Nasya* is useful in *Avabahuka*.
9. **Marma Therapy** – Less time consuming, easy to use and evidence based, economical, with no visible side effects.

DISCUSSION

This article aims to provide an overview of the nature and the widely accepted management of *Avabahuka* based on other studies. *Avabahuka* is a disease caused by *kupita Vata Dosa* localizing around the *Amsa Pradesha* causing the *Soshana* of *Amsasandhis*, thereby leading to *Akunchana* of *Sira* at that site and giving rise to *Bahupraspandanaharatwam*. In consideration to the ayurvedic etiopathogenesis of the disease it reveals that the *Vataprakopaka* etiology in general are mainly responsible for the genesis of the disease. The specific etiology like weight lifting, excessive movements of the hands, *Dukkha Shayya* (mal sleeping posture) particularly hand under the head during sleeping are the main causative factors. Aggravate *Vata* spreads all over the body (*Prasara*) but specially at the area of *Amsasandhi* (*Sthanasamsraya*) due to the prior '*Khavaigunya*' and leads to *Dosa Dusya Sammurchana* at the said place triggered by *Abhighata* or other etiologies mentioned earlier. In Ayurveda there are several medications as well as purificatory therapy (*Shodhana*) and *Rasayana Therapy* are indicated in *Vata* predominant diseases in general. As the disease is purely caused by affliction of *Vayu* and the symptoms come due to the aggravation of *Vayu*, so *Vatanasak Therapy* along with Marma Therapy should be advocated as a remedy of the same. aims and objective of the treatment is to provide relief to the patient by reducing the complaints.

CONCLUSION

It is extremely important to consider the patient's symptoms and condition when selecting a treatment method as each patient's treatment should be individualized. Marma therapy stimulating Marma points nearby *Amsa-Sandhi* gives promising results and even it can be practiced life long without any side effects. *Marma Therapy* can be used along with oral vatashamaka medicines and Panchkarma procedures to further enhance the results. Furthermore, significant areas of research must be carried out on this specific field of study in order to come to an appropriate conclusion for diagnosis and co relation with *Apabahuka*.

REFERENCES

1. Agnivesa, Charaka Samhita, with Chakrapaanidatta. In: Acharya YT, edi. Ayurved Dipika, Commentary. Reprint ed. Varanasi: Chaukhambha Orientalia, 2001; p.621.
2. Sudarsana Sastri, Madhava Nidana; Madhukosa Vyakhya and Hindi Commentary, Chaukhambha Prakashan, Varanasi, edition Reprinted, Vol 1.p.490.
3. Bahaadur Radhakanthadeva, Shabdakalpadruma, Pp565, p 62, NAG publishers, 1987, Delhi.
4. Kaviraj sen Nagendranath, Vaidyak shabda sindu, Pp1212, p 39, chouxhamba orientalia, fourth edition, Varanasi.
5. Dr Sharma Anantaram, Susruta samhita, p 470, Pp 600 chaukhamba surabharati prakashana, Varanasi, 2012.
6. Agnivesa, Charaka Samhita, Acharya Jadavji Trikamji, Chowkhmbha publication, 2001; Varanasi, Pp 738, Pg. 617.
7. Chakrapani, Charaka Samhita, Chaukambha Sanskrit sansthana, 2001; Varanasi, Pp-738, pg. 478.
8. Vagbhatacharya, Ashtanga Hrudaya, NidanaSthana, chapt 15, sloka no 44, Translated by Dr. Srikantha Murthy Sagar Press, 2002; Varanasi, Pg no. 247, Pp- 956.
9. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 269.
10. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003, Varanasi. Pp824, Pg. 428.
11. Maadhavakara, Maadhava Nidaanam, Prof. K.R. Srikanta Moorthy, Chaukambha Orientalia, 1993, Varanasi, Pp-329, pg. 443.
12. Agnivesa, Charaka Samhita, Acharya Jadavji Trikamji, Chowkhmbha publication, 2001 Varanasi. Pp 738, pg. 337.
13. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003, Varanasi. Pp824, pg. 260.
14. Dalhana, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 261.
15. Dalhana, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 261.
16. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 269.

17. Sushruta, Sushruta Samhita edited by Vaidya Jadavji Trikamji Acharya: Nibandhasangraha Commentry; Nidan Sthana: chapter 1; by Sri Dalhanacharya, Chaukhamba Surbharati Prakashan, Varanasi: Revised Edition, 2018; Su.Su.33/4
18. Sushruta, Sushruta Samhita edited by Vaidya Jadavji Trikamji Acharya: Nibandhasangraha Commentry by Sri Dalhanacharya, Chaukhamba Surbharati Prakashan, Varanasi: Revised Edition, 2018.
19. Agnivesha, Charaka Samhita revised by Charaka and Dridabala, edited by Vaidya Jadavji Trikamji Acharya, Ayurvedadipika Commentary by Chakrapanidatta, Chaukhamba Surbharti Prakashan, Varanasi: Revised edition, 2017.
20. Sushruta, Sushruta Samhita edited by Vaidya Jadavji Trikamji Acharya: Nibandhasangraha Commentry; Nidan Sthana: chapter 1; by Sri Dalhanacharya, Chaukhamba Surbharati Prakashan, Varanasi: Revised Edition 2018 Su.Su33/4.
21. Sushruta, Sushruta Samhita edited by Vaidya Jadavji Trikamji Acharya: Nibandhasangraha Commentry; Nidan Sthana: chapter 1; by Sri Dalhanacharya, Chaukhamba Surbharati Prakashan, Varanasi: Revised Edition, 2018.
22. Susrut Samhia by Kaviraj Kunjalal Bhishagratna edited by Dr. Laxmidhar Dwivedi, Vol 3, Chaukhambha Sanskrit series office, Varanasi-1, edition 4rt, 2009, Uttar Tantra 1/20 pg. 117.
23. Charak Samhita of Agnivesa, edited by Prof. Priyavrat Sharma Vol 1, Chaukhambha Orientalia, Varanasi, edition 9th, 2005; 22/11 pg 150.
24. Agnivesa, Charaka Samhita, Acharya Jadavji Trikamji, Chowkhmbha publication, 2001 Varanasi. Pp 738, pg. 620.
25. Agnivesa, Charaka Samhita, Acharya Jadavji Trikamji, Chowkhmbha publication, 2001 Varanasi. Pp 738, pg. 252.
26. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 528.
27. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 52.
28. Susruta, Susruta Samhita, Acharya Jadavji Trikamji, Chowkhmbha Orientalia 2003 Varanasi. Pp824, pg. 382.
29. Agnivesa, Charaka Samhita, Acharya Jadavji Trikamji, Chowkhmbha publication, 2001 Varanasi. Pp 738, pg. 620.