

MODERN PERSPECTIVE OF AVABAHUKA

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ABSTRACT :

Avabhahuka a common condition, which badly affects the routine activities. In the contemporary science it can be paralled with the condition of frozen shoulder. Diagnosis of *Avabhahuka* can be ascertained easily by typical clinical presentation of *bahupraspanda hara*, with *shoola* and *stamba*. These cardinal manifestations reveal the vitiation of vata and the involvement of kapha dosha also. Though *Avabhahuka* is charecterized by restricted movement of the shoulder joint, stiffness and pain, it may be difficult to differentiate it with the similar conditions like *vishwachi* and *ekanga vata* .It is a common cause of shoulder pain & disability in the general population. Although it is a self limiting ailment it is rather long, restrictive & painful course, which forces the affected person to seek treatment. As there are many diseases in contemporary science which can be analyzed & correlated to *Avabhahuka*.

Key words: *Avabhahuka*, frozen shoulder, *shoola*, shoulder joint.

INTRODUCTION: The present day world is full of stress and strain with increasing competitions in all walks of life. This has led to many diseases which though do not kill a person, but hamper one's day to day life. Risk factors for frozen shoulder include tonic seizures, diabetic mellitus, stroke, accidents, lung disease, connective tissue disease, thyroid disease, and heart disease. Treatment may be painful and consists of physical therapy, occupational therapy, medication, massage therapy hydrodilation or surgery. A physician may also perform manipulation under anesthesia, which breaks up the adhesions and scar tissue in the joint to help restore some range of motion. Pain and inflammation can be controlled with analgesics and NSAIDs. The condition tends to be self-limiting and usually resolves over time without surgery. Most people regain about 90% of shoulder motion over time. *Vataja* disorders include major neurological problems, few conditions of the

musculo-skeletal system, few psychosomatic problems and very few gastro-intestinal problems. More precisely in *vataja* disorder multiple systems of the body get affected.

DEFINITION: *Avabahuka* comprises of two words 'ava' and 'ka'. *bahuka* means *Viyoga*^[1], *vikratou* means *Viyogou*^[1]; ie dysfunction, separation. *Bahuka - pra cha koorparasya urdhwadha bhagou iti vishnupurane*^[2] means it starts from *Koorparasandhi* to Shoulder girdle. Thus *Avabahuka* can be defined as: *stambho Avabahuka*^[2] i.e. Stiffness in the arm joint, By seeing the above definition of *avabahuka* explained by our acharyas correlates with the Frozen Shoulder/Adhesive Capsulitis explained in contemporary science.

Symptoms of Avabahuka: In clinical practice we do get the patients with the complaint of pain, stiffness of shoulder joint/ upper arm, in different conditions such as in infectious, degenerative, and

neurological problems. This requires a thorough differentiation is required for successful treatment. In case of *Avabahuka sthanika laxana* take important place, as compared to *sarvadahika laxana*. The cardinal features of *Avabahuka* are as follows.

- i) *Bahu Praspandidahara*^[3]
- ii) *Amsabandhana Shosha*^[3]
- iii) *Shoola*^[3]

1. Bahu Praspandidahara : This has three terms

Bahu : means upper limb

Prasapandana: means movement or *chalana*, this is considered under normal function of *vata Praspandana shareerasya chalanam, idam vyanasya karma*^[3] Dalhana commenting on this says that *praspandana* means *chesta* or movement and *chesta to akunchana - prasaranadi karma*. This *karma* is maintained by *vyanavata* in the limbs.

Hara: means loss of / impaired / difficult. Thus, in the present context this may be taken up as (i.e. *praspandahara*) difficulty in the movement or impaired or loss of movement of the upper limb.

2. Amsabandhana Shosha: Sushrutacharya considered this as a major *laxanas* in case of *Avabahuka*. But, this is practically seen in the later part of the disease.

3. Shoola: Although any of the classic do not mention about the *shoola as a laxanas of Avabahuka*, Recent Ayurvedic texts, clearly mention about *Savedana* as a predominant *laxanas of Avabahuka*, along with other *laxanas*. Based on the symptomatology, we can correlate the condition *Avabahuka* with that of frozen shoulder mentioned in modern classics as follows:

Symptoms:

- a) Gradual onset of shoulder stiffness

- b) Pain manifest after significant Shoulder Range of movement lost
- c) Pain well localized to rotator cuff
- d) Pain radiation into deltoid and anterior arm
- e) Pain interferes with sleep (unable to lie on shoulder)

Signs:

- Inspection:**
1. mobility of the shoulder
 2. muscle wasting
 3. deformity
 4. swelling
 5. Discolouration

- Palpation:**
1. shoulder joint tenderness
 2. local temperature

SPECIAL TESTS

- 1: Range of motion testing
 - a. Appley scratch test of external rotation
 - b. Appley scratch test of internal rotation
2. Rotator cuff muscle strength Testing
 - (a) Drop arm test, (b) empty can test
 - (C) push off test
3. Rotator cuff impingement Test
 - (a) Hawkin's test, (b) Neer's test
4. Glenohumeral stability testing
 - (a) sulcus sign, (b) Load shift test
 - (c) Apprehension and relocation test
5. Biceps tendon testing
 - (a) speed test, (b) yergon's test
6. Acromio clavicular test
 - (a) cross arm test
7. Thoracic outlet syndrome test
 - (a) costoclavicular maneuver
 - (b) Roo's test, (c) Adson's test
8. cervical spine test
 - (a) spurling's tes
9. Biceps tendon/Labral injury
 - (a) O'brien test, (b) Biceps load test
 - (c) Biceps tension test, (d) crank test

These are some clinical conditions of frozen shoulder. Diagnosis can be successfully made by observing the patient for clinical manifestation of the disease & analyzing

the symptoms to determine the vitiation of *dosha*, involvement of *dhatu*, affliction of *shrotas* as well as other events of *samprapthi*. Even the differentiation between the disorders can be made easily by analyzing the site of the disease, the course of pain, character of pain, severity, associated phenomena & functional disability in patients. *Avabahuka* should be differentiated with the following diseased conditions that affect the upper limb.

1. Vishwachi: 'Talam Pratyangulinam ya kandara bhahu pristata

Bahvoho Karmakshayakari viswachinama sa smritah"||^[3] .^[4]

Here, the pain starts from *hasta tala* and *angulis* and radiates in the *kahandaras* of *prista* region and manifest with *karmakshaya*. Range of movement is more restricted in case of *Viswachi* than *avabahuka*, where pain is more in *Avabahuka* than *viswachi*.

2..Ekangavata: 'Ekangavatam tam vidyad anye pakshavadham viduh: ||^[4]

Karmahani of affected limb is the main feature seen *ekangavata*. In case of *Apabahuka karmakshaya* is the main characteristic feature observed. If we analyze the pathology of both conditions, the lesion somewhere in the *Shiras* in case of *ekangavata* and in case of *avabahuka*, its restricted only to shoulder joints and nearby structures.

3.Shosha: "Asmsa desha sthito vayuh shoshayet amsa bandhanam" |^[5]

Shosha was considered as a separate condition by *Madhavakara* and it has to be differentiated from *Avabahuka* by considering as an independent entity. Where the wasting of muscles itself is the cardinal feature, have to be noted. *Shosha* will see in the later stages of *Avabahuka*. But, *Avabahuka* may be a predisposing factor

for *Shosha* which intern does not end up with *Avabahuka*.

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1. Biceps tendon rupture:^[6,7]

Symptoms: Painful snap at elbow following forceful elbow flexion, Swelling and Tenderness occur proximal to elbow, sudden onset with sharp snapping sensation, Pain and weakness of shoulder and arm.

Signs:

- Weak flexion at elbow: where in some flexion may be maintained.
- Weak supination at forearm.
- Bulbous swelling in upper arm on flexion

- Localized bulge at distal biceps when elbow flexed

- Bulge represents retracted biceps muscle belly

Except shoulder pain, the above signs and symptoms are not there so it is not a frozen shoulder.

2. Biceps Tenosynovitis:^[6,7] Occurs above the age of 40 years due to repetitive throwing, causes Anterolateral Shoulder Pain referred down the anterior arm.

Signs:

- Tenderness over bicipital groove
- Pain limits active and passive range of motion

Maneuvers that stretch biceps elicit pain, Forceful external rotation with abduction Arm extension with elbow extended Shoulder pain referred to anterior arm and restriction of movements on both active and passive movements are not seen in frozen shoulder, so it could be excluded.

3. Subluxing Biceps Tendon: ^[6,7]

Symptoms: There will be congenital presence of shallow groove in the bicipital region, shoulder pain and stiffness, frequent reoccurrence of subluxation.

Signs: Forceful external rotation and abduction of shoulder are painful. Surgery is the choice of management. But in case of frozen shoulder, there won't be any bicipital groove/subluxation where all modalities of movements are afflicted.

4. Clavicle fracture:^[6,7] H/o of trauma i.e. fall against lateral shoulder (most common), fall on Outstretched Hand, direct blow to clavicle, Shoulder pain and swelling localized to fracture site, patient unable to lift arm due to pain.

Presentation: Holding the affected arm adducted and supported with the opposite hand.

Signs: Gross clavicular deformity observed or palpated, localized swelling, bruising, tenderness, and crepitation.

5. Gleno Humeral Instability:^[6,7]

Symptom: Typically occurs below the age of 40 years, lateral deltoid numbness and pain

Signs: Shoulder apprehension Test is positive. X ray of shoulder shows either Hill-Sachs Lesion, Shoulder Dislocation, Inferior glenoid avulsion Fracture.

6. Shoulder dislocation: ^[6,7] Usually there is history of trauma or generalized seizures present; Acromion is much more prominent, humeral head fullness absent under deltoid, Leaves prominent cavity. Severe pain in the shoulder with any range of motion, Arm "locked" in place (may be cradled by other hand), Patient refuses to move arm. In case of –

- Anterior dislocation- Arm held externally rotated, anterior shoulder appears full with anterior bulge, Space below acromion appears empty, internal rotation painful
- Posterior dislocation- Arm held in internal rotation, Forearm rests on abdomen, Anterior shoulder flat, External rota-

tion painful, Assess neurovascular structures. X ray is diagnostic.

7. Rotator Cuff Tendonitis:^[6,7]

Symptoms: Pain worse at night, unable to lay on affected shoulder, locking sensation with abduction, referred pain to deltoid.

Signs: Tenderness at the insertion of supraspinatus, pain in the Acromioclavicular joints, patient automatically turns palm up on abduction, and active "palm down" abduction is painful. Intact muscle strength, Pain and crepitation worse between 60 to 120 degrees abduction, maximal compression of soft tissue in subacromial space. X ray shows sclerosis at the tuberosity.

8. Osteo arthritis of Shoulder joint:^[6,7]

Symptoms: Gradual onset of pain and stiffness, stiffness may significantly limit function when advanced, chronic Shoulder Pain, Crepitus.

Signs: Limited shoulder range of motion - active and passive.

X ray shows degenerative changes like narrowing of joint spaces, subchondral sclerosis and formation of osteophytes.

9. Brachial Plexus Neuropathies:^[6,7]

Symptoms: Severe Shoulder Pain or arm and neck pain worsens at night and is of short duration. Shoulder weakness follows pain within 1 to 30 days.

Signs: Atrophy of multiple shoulder muscle groups involved are deltoid muscle, rotator cuff muscles, biceps muscle and triceps muscle Electromyogram shows neurogenic atrophy.

10. Sub coracoid Bursitis:^[6,7]

Symptom: The patient complains of pain in the region of the coracoid and there is definite tenderness over the interval between two bones.

Signs: Chronic cases on which adhesions are present have marked limitations of lateral rotation and abduction.

11. Sub Deltoid Bursitis:^[6,7]

Symptoms: Pain in the shoulder on abduction and internal rotation of the humerus is severe at night, and tender points of the shoulder which is usually felt near the insertion of the deltoid muscle, rather than in the joint itself, although it may radiate wide.

Signs: Point tenderness on the greater tuberosity which disappears under the acromion on abduction (Dawbamis sign). This tenderness may be absent or it may be wide spread over the deltoid region. In some cases the patient gives a history of an injury to the shoulder. This usually takes the form of a fall on the outstretched arm or stabbed shoulder. When the pain follows an injury there is usually an interval of few days before it manifests itself. Radiological imaging may show calcium deposits on the supraspinatus tendon. *Avabahuka* should be differentiated from other clinical conditions of shoulder joint for successful treatment.

CONCLUSION: *Avabahuka* is a disease of shoulder joint with restricted movement. *Avabahuka* can be compared with frozen shoulder, *Samprapti and laxanas* of *Avabahuka* and its physical examination can better be understood and done with the help of modern medical techniques. Even the differentiation between the disorders can be made easily by analyzing the site of the disease, the course of pain, character of pain, severity, associated phenomena & functional disability in patients. Treatment with physical therapy and NSAIDs will usually restore motion and function of the shoulder within a year. Even untreated, the shoulder can get better by itself in 24 months. After surgery restores motion, physiotherapy is continued for several weeks or months to prevent the frozen

shoulder from returning. Treatment may fail if physiotherapy is not continued.

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Declared