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## An overview of musculoskeletal diseases from Ayurveda classics W.S.R. to *Bruhatrayee*

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#### Abstract

In order to understand the concept of ayurvedic musculoskeletal diseases one should first understand the rachanatmak and kriyatmak aspect of the sandhi. Likewise multiple references regarding musculoskeletal diseases have been found in our ancient classical texts. The article encompasses all the references from the classical text Charak samhita regarding shoola and shotha of any joint, sandhi. The related signs and symptoms and condition or stages in which they occur have also been mentioned. No satisfactory results have been made till date in the light of curing or atleast providing relief rather giving analgesic i.e. pain relieving treatment has been made. An effort has been made to guide all keen readers to first understand and to arrive at the proper diagnosis of a patient of MSD. Thorough knowledge of differential diagnosis is the key to conclusive diagnosis.

**Keywords:** Sandhi, shoola, shotha, MSD, treatment

#### 1. Introduction

The knowledge about *sandhi* and the pathology affecting it is necessary in order to arrive at a proper and accurate diagnosis for a patient of MSD. The wise physician should be well versed and acquainted with the *lakshanas* in the patients suffering from *sandhi shoola* and *sandhi shotha*. It is true to a certain extent that a vast number of conditions wherein patient is having sandhi shoola and shotha are concerned about *vatavyadhi*, but as per our *acharyas*, it has been observed that there are multiple diseases and symptoms wherein person may exhibit the above mentioned lakshanas. There are a myriad and vast spectrum of *vyadhis* where person may suffer from the above symptoms and hence it is upto the wise physician to reach to the correct diagnosis.

*Sandhishoola* is an important clinical manifestation seen in many diseases that afflicts the *sandhi*. The term *shoola* may be equated with pain. The diseases of the *sandhi* are becoming more and more common in these days due to the prevalent habits and lifestyle in present era. *Amavata*, *Sandhigata vata*, *Krostukshirsha*, *vatarakta*, etc. are most troublesome diseases which affect the locomotor system in the most productive period of life. Hence, management of pain becomes first priority of the physician. Even though *sandhishoola* is not proved to be fatal, it cripples the affected patients. It affects many spheres of the patients' life like family & community relations etc

The article encloses almost all the symptoms of *sandhi shoola* and *shotha*, condition or disease wherein they are manifested in *Bruhatrayee*.

Hence an effort has been made especially for all *Ayurveda* scholars in order to understand the concept of MSD as per *Ayurveda* esp. *Bruhatrayee* classics.

#### 1.1 Need of topic

Many scholars from around the globe are working effortlessly on musculoskeletal diseases. New day new solutions are being offered to mankind in order to relieve the patient especially from pain. However, not much satisfactory results have been attained till date and the cure of MSD especially Arthritis is now much a matter of global concern.

Hence an imperative approach has been made in this article in order to understand the basic patho-physiology of such diseases from Ayurveda point of mentioned in Bruhatrayee.

**1.2 Aim and objectives**

**Aim-**To study the concept of MSD from Ayurvedic aspect along with its management.

**1.3 Objectives**

1) To study the basic pathophysiology, differential diagnosis of the disease of MSD from ayurvedic perspective.

- 2) To understand the allied symptoms and related diseases as mentioned in bruhattrayee classics.
- 3) To do a detailed literary review about related topics.

**2. Material and Methods**

Review work done and literature from the classical texts of Bruhatrayee and research websites have been incorporated in the study

S. No	Sign/symptom/disease where joint pain is observed	Condition/stage/indication
1	<i>Snayu sankocha</i> Constriction of ligaments	It occurs when there is suppression of yawning
2	<i>Asthi, sandhi, sira, snayu ruja</i> Pain in bones, joints, ligaments and tendons	When such a typical pain occurs it is a clear indication for consumption of animal fat <i>vasa</i> for its cure
3	<i>Gridhrasi</i> Sciatica	It is an indication for sudation therapy
4	<i>Asthi sphutana</i> Breaking and bursting like pain in bones	It occurs when the primordial element of <i>kapha</i> has reduced and <i>vata</i> and <i>pitta</i> are in an aggravated state
5	<i>Sandhi sphutana</i> Bursting and breaking like pain in joints	It occurs when there is a depletion of <i>meda</i> body fat
6	<i>Durbal asthi with vataja vikara</i> Weakening of bones associated with diseases of <i>vata</i>	Such a condition occurs in depletion of bone marrow <i>majja</i>
7	<i>Jangha, uru, trika shoola</i> Pain in knee joints, chest pain, shoulders, cervical region	It is observed in almost all emaciating diseases
8	<i>Mamsa daha</i> Burning sensation in muscle mass	It occurs as a result of intake of sour foods
9	<i>Asthi bheda, shoola</i> Breaking like severe pain in bones	Seen in diseases afflicting bony tissue <i>asthi</i>
10	<i>Skandha, janu sandhi, kati parshwa, prushtha vishleshan</i> Dislocation of shoulder, knee joint, lumbar vertebrae	Seen as a <i>lakshan</i> symptom in <i>vataja jwara</i> Pyrexia having predominance of <i>vata</i> element
11	<i>Manyashoola</i> Pain in cervical region	Seen as a <i>lakshan</i> in <i>vataja gulma</i>
12	<i>Asthi sphutana</i> Breaking pain in bones	Seen as a complication in patients of <i>kushtha</i> psoriasis
13	<i>Sandhi prapeedan</i> Severe pain in joints	Seen as a <i>lakshan</i> in <i>sosa</i> caused due to <i>shukra kshaya</i> As a symptom in depletion or wasting caused due to depletion of semen
14	<i>Amsa marda</i> Pain in shoulders	Seen as one amongst the 11 <i>lakshanas</i> of <i>kshaya</i>
15	<i>Sandhi sransa, bhramsha</i> Dislocation and severe pain in joints	Sensory objective for tactile sensation
16	<i>Manyashira stambhita</i> Rigidity of cervical region	<i>Arishta lakshan</i> Seen as a death indicating symptom
17	<i>Manyagraha</i> Rigidity of cervical region	Seen as a symptom in a morbid person
18	<i>Ksheen mamsa</i> Depletion of muscle tissue	Seen as a symptom in a morbid person
19	<i>Sandhi vishleshan</i> Dislocation of joints	Seen as a symptom in a patient who is certainly about to die
20	<i>Sandhi vishleshan</i> Dislocation, loosening of joints	Seen in <i>dhatwashritajwara</i> Pyrexia
21	<i>Parva sandhi bheda</i> Pain in metacarpopharyngeal joints	<i>In dwidoshaja jwara as a lakshan</i> Seen in patients having fever involving atleast two primordial elements
22	<i>Sandhi vedana</i> Pain in joints	<i>In sannipataj jwara</i> In patients having fever involving all three primordial elements
23	<i>Amsa santapa</i> Burning sensation in shoulders	<i>In dhatukshaya janya kshaya</i> Seen in depletion of body tissue
24	<i>Sarva parva asthi shoola</i> Pain in all metacarpo, interpharyngeal joints and bones	Seen in <i>sahaj arsha as samanya rupa</i> Seen as a common symptom in haemorrhoid of congenital origin
25	<i>Trika, janu, prushtha shoola</i> Pain in shoulders, knee joints, back	Seen as a <i>lakshan</i> in <i>vataja atisara</i> Seen as a symptom in diarrhoea having dominance of <i>vata</i> primordial entity
26	<i>Asthi, sandhi bheda</i> Breaking like pain in bones and joints	Seen as a <i>lakshan</i> in <i>vatavisarpa</i> Symptom in <i>erysipelas</i> of <i>vataja</i> origin
27	<i>Asthi, sandhi vidyut tulyavat vedana</i> Pain like the passing of shock of an electric current through the	<i>Madatyaya tridosha lakshan</i> Symptom in alcoholism

	joints	
28	<i>Parshwa, prushtha, kati graham</i> Pain in back, lower back and rigidity	<i>Kshata ksheen lakshan</i> Seen as a symptom in pthisis
29	<i>Parva bheda</i> Pain in metacarpopharyngeal, interpharyngeal joints	<i>Pleehodar lakshan</i> Symptom in spleenomegaly
30	<i>Asthi, parva ruka</i> Pain in bones and inter metacarpopharyngeal joints	<i>Grahani dushti lakshan</i> Symptom in sprue syndrome
31	<i>Parshwa, uru, vankshan, greeva ruja</i> Pain in back, chest, groin, cervical region	<i>Vataja grahani lakshan</i> Seen as a symptom of sprue syndrome having predominance of vata element
32	<i>Kati,uru,pada ruk</i> Pain in lower back,chest,legs	<i>Pandu samanya lakshan</i> Seen as a symptom of anaemia
33	<i>Prushtha,parshwa ati darunatawa</i> Chronicity seen in back region	<i>Udavarta lakshan</i> Seen as a symptom in patients suffering from disorders of urinary bladder
34	<i>Asthi,parva bheda</i> Pain in bones and metacarpopharyngeal joints	<i>Vatakopa lakshan</i> Observed when there is aggravation of vata element
35	<i>Sharir ruk, guru anga</i> Pain in body, heaviness of body	<i>Mamsagata vata</i> Seen when primordial vata enters muscle tissue
36	<i>Asthi bheda,parva sandhi shoola, mamsa bala kshaya, antarayam, bahirayam</i> pain in bones, interpharyngeal joints, depletion of muscle mass, forward and outwards bending of body	<i>Majja asthi gata vata</i> Seen when primordial vata enters bone and bony tissue
37	<i>Sharir manda ruk,shopha,spanda</i> slight pain in body, oedema, pulsation felt	<i>Siragata vata</i> Common sign seen when vata resides in ligaments and tendons
38	<i>Vatapurna druti sparsha shopha sandhigata anila prasaran akunchan pravrutti cha sa vedanam</i> Feel of joints as if filled with air, oedematous, pain during flexion and extension of joint	<i>Sandhigata vata</i> Cardinal symptoms of osteoarthritis
39	<i>Sira snayu shushkata</i> Wasting of ligaments and tendons	<i>Vatakopa sthananusar vikara</i> Occurs when aggravation of vata occurs as per its location
40	<i>Sphika purva kati prushtha uru janu jangha padam kramat gridhrasi spandate muhu</i> Pain in pelvic region,lower back, waist, thighs, knees	<i>Gridhrasi lakshan</i> Cardinal symptoms of sciatica
41	<i>Mamsa daha, peeda</i> Burning sensation in muscle tissue, pain	<i>Raktavrutta vata</i> Occurs when vata element aggravates and resides in blood
42	<i>Sandhi sphuran, bheda, ruk</i> Bursting like pain in joints, breaking like pain	<i>Vatarakta purva lakshan</i> Premonitory symptom of gout
43	<i>Sandhi, asthi ruk daha</i> Pain and burning sensation of joints and bone	<i>Vatarakta bheda</i> Differential diagnosis of gout
44	<i>Sirayam</i> Bending of the body	<i>Vatadhikya vatarakta</i> Occurs when there is predominance of vata in gout
45	<i>Asthi mamsa arati</i> Restlessness of bones and muscle tissue	<i>Antarmukhi yonivyapad</i> Seen in disorders of vagina
46	<i>Sandhi shunyata</i> Numbness of joints	<i>Meda kshaya lakshan</i> Seen in depletion of fatty tissue
47	<i>Asthi shoola</i> pain in bones	<i>Asthi kshaya lakshan</i> Seen in depletion of bony tissue
48	<i>Parva bheda,asthi toda</i> Pain in interpharyngeal joints, pricking pain in bones	<i>Majja kshaya lakshan</i> Depletion of bone marrow
49	<i>Asthi toda, shoola</i> Pricking pain in bony tissue	<i>Asthi doshaja vikara</i> Seen in disorders of bony tissue
50	<i>Sthoola parva</i> Large deep seated interpharyngeal joints	<i>Majja doshaja vikara</i> Seen in disorders of bonemarrow tissue
51	When joints either movable/immovable are injured, there will be great increase of swelling, very severe pain, loss of strength of the joints, splitting pain, oedema and loss of function of the joints are the symptoms	Seen as a complication in surgical postoperative
52	<i>Stambha, kampa, shoola, akshepa</i> Rigidity, tremors, pain, convulsions seen	<i>Snayu sthita vata</i> Seen when vata element resides in ligaments
53	<i>Shoola, shopha</i> Pain, oedema	<i>Sandhi sthita vata</i> Observed in condition wherein vata resides in the joints
54	<i>Asthi sosa,prabedha</i> Wasting of bony tissue, pain	<i>Asthi sthita vata</i> It is seen when vata resides in bony tissue
55	<i>Bahirayam</i> Outward bending	<i>Snayu sthita vata</i> It is seen when vata resides in the ligaments

56	<i>Gridhrasi</i>	May be correlated with Sciatica
57	<i>Vishwachi</i>	May be correlated with cervical spondylitis
58	<i>Krostukshirsha</i>	A generalized view
59	<i>Khanja pangu</i>	A general description
60	<i>Kalay khanja</i>	A general description
61	<i>Fifth vega lakshan parva bheda</i> Fifth stage symptom seen is pain in interpharyngeal joints	<i>Sthavar visha vega</i> Such a stage is observed when poisoning occurs due to vegetable poison
62	<i>Sandhi vedana</i> Pain in joints	<i>Darvikar visha lakshan</i> It is seen as a symptom when poisoning occurs due to darvikar poison
63	<i>Fifth vega lakshan parva bheda</i> Fifth stage sign is pain in interpharyngeal joint	<i>Darvikar visha vega</i> Seen in poisoning caused due to darvikar poison
64	<i>Asthi bheda</i> Breaking like pain in bones	<i>Asthigata jwara</i> Seen when fever is associated with bony tissue
65	<i>Parva ruk</i> pain in interpharyngeal joints	<i>Grahani roopa</i> Seen as a symptom in sprue syndrome
66	<i>parvasu sthula mulani</i> deep rooted swollen interpharyngeal joints	<i>Vruddha majja dhatu karma</i> Action of aggravated bone marrow tissue
67	<i>Sandhi vedana</i> Pain in joints	<i>Mamsa kshaya</i> Occurs during depletion of muscle tissue
68	<i>Asthi, sandhi toda</i> Pricking like pain in bones and joints	<i>Asthi kshaya</i> Seen in depletion of bony tissue
69	<i>Snayu sankocha</i> Constriction of ligaments	<i>Ati stambhan lakshan</i> Occurs when there is excess of stambhan therapy
70	<i>Sandhi sada</i> weakness of joints	<i>Vataj jwara lakshan</i> Seen as a symptom in fever associated with vata
71	<i>Chhidyanta asthi</i> Breaking cutting like pain in bones	<i>Vataj jwara lakshan</i> Seen as a symptom in fever associated with vata
72	<i>Parva bheda</i> Pain in interpharyngeal joints	<i>Dwandwaj jwara</i> <i>Vatapittaj jwara</i> Observed in fever associated with elements vata and pitta
73	<i>Sandhi asthi shoola</i> Pain in joints and bones	<i>Vruddha vata karma</i> It is an action of aggravated vata
74	<i>Snayu sthita vata</i> Vata located in ligaments	<i>Gridhrasi</i> Such a symptom noted in sciatica
75	<i>Vatapurna druti sparsha</i> Joint felt like as if filled with air	<i>Sandhi sthita vata</i> Observed when vata located in joints
76	<i>Sandhi bandhan vimokshayan</i> Loosening and dislocation of joints	<i>Pakshavadha</i> Seen in patients of hemiplegia
77	<i>Sira sankocha</i> Constriction of ligaments	<i>Apabahuka</i> Observed in patients of frozen shoulder
78	<i>Sakthi sthita kandara</i> <i>Akshepa</i> Pain and tremors in tendon located in thigh	<i>Khanja pangu</i> Seen in patients having a disability of walking
79	<i>Mukta sandhi</i> Dislocated joints	<i>Kalaykhanja</i> seen in patients of
80	<i>Khalli=vishwachi+gridhrasi</i>	Seen in patients having both cervical spondylitis and sciatica
81	<i>Parva asthi graham</i> Rigidity of bones of interpharyngeal area	<i>Kaphavrutta vyana</i> Occurs when occlusion of kapha element occurs when enveloped by vyana vayu element
82	<i>Jangha, parva, asthi shoola</i> Pain in knee joint, pain in bones	<i>Jwara with udarda</i> Occurs when fever is associated with urticaria

83	<i>Sandhi vedana</i> Pain in joints	<i>Visa lipta salya</i> Occurs in a person injured by a foreign body which is coated with poison	
84	<i>Fourth vega-sandhi vishleshan</i> Fourth stage-looseness of joints <i>Fifth vega-parva bheda</i> Fifth stage-pain in interpharyngeal joints	<i>Darwikar visha vega</i> Observed when poisoning occurs due to snake poison	
85	<i>Shlatha sandhi</i> Loose joints	Symptoms manifested just before death in persons who have consumed poison/injured by snakes/poisoned arrow	
86	<i>Asthi parva ruk</i> Pain in bones and interpharyngeal joints	<i>Vata pradhan vrishchik damsha lakshan</i> Seen in persons of scorpion bite having predominance of vata element	
87	<i>Parva bheda</i> Pain in interpharyngeal joints	<i>Mooshika shukra sparsha lakshan</i> Manifested as a symptom in poisoning caused due to rats	

According to modern medicine there are a numerous conditions where the condition of joint pain can be seen. The term Arthralgia means joint pain [88]. It is a symptom of injury, illness, infection or maybe an allergic reaction to medication. According to modern medicine the term arthralgia is used in non-inflammatory conditions and arthritis term should be used in conditions associated with inflammation.

The causes of arthralgia are myriad ranging from degenerative and destructive processes to inflammation till injuries. This may also be triggered due to vaccinations, infections etc [89]. The causes of joint pain maybe Rheumatoid arthritis, Systemic lupus erythematosus, viral arthritis, Ehlers-Danlos Syndrome, Reactive arthritis, Rheumatic fever, Lyme disease, Gonococcal arthritis, Drug induced arthritis, Ligamentous laxity, Osteoarthritis, Gout attack, Pseudogout, Behcet's disease, Physical trauma, Septic arthritis, Hemarthrosis [90].

### 3. Conclusion

The symptom of joint pain is seen in a multiple number of diseased conditions, musculoskeletal diseases. Hence, it becomes difficult for the physician to arrive at a proper diagnosis. Hence, he should have a thorough knowledge about the symptom with reference to differential diagnosis. Arriving at a diagnosis especially from the Ayurvedic point of view is a task in itself and hence a concise list of all the references mentioned in the classical text of Bruhatrayee has been made to help the clinician. Given the varied nature of these possible causes, some questions asked by the physician may seem irrelevant but in fact the patient is asked questions intended to narrow the number of potential causes. hence answering of these questions becomes imperative and guides the physician towards appropriate conclusion.

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