

**Review Article****DIAGNOSIS AND MANAGEMENT OF *KATISHOOLA* (LOW BACK PAIN) IN AYURVEDA: A CRITICAL REVIEW****Sanjay Gupta¹, Vasant Patil^{2*}, Radheyshyam Sharma³**¹Associate Professor, Dept. of Panchakarma, Rishikul Campus, Uttarakhand Ayurved University, Haridwar, India.²Professor, Dept. of PG Studies In Panchakarma, SSRAMC, Inchal, Karnataka, India.³Vice Chancellor, DSRRRA, University Jodhpur, Rajasthan, India.**KEYWORDS:** *Katishoola*, Low Back Pain (LBP), *Panchakarma*,**ABSTRACT**

Low back pain (LBP) is an important clinical, social, economic, and public health problem affecting the population indiscriminately. It is a disorder with many possible etiologies, occurring in many groups of the population, and with many definitions. Consequently, the vast literature available on LBP is not only heterogeneous but also contradictory. A clear description regarding the *Samprapti*, *Lakshana* of *Kati Graha* is explained by the *Shodhala* in the *Kayachikitsa Khanda*, *Vataroga Adhikara*. He has described various formulations for *Kati Shoola* and has specifically indicated *Trayodashanga Guggulu* for *Kati Graha*. The prevalence of LBP in Indian population has been found to vary between 6.2% (in general population) to 92% (in construction workers). Low back pain can be medically and economically devastating and is the number one cause for disability in patients younger than forty-five years of age and number three cause for disability in patients older than forty-five years of age. This problem, supposedly has a favourable natural history, although it can be remarkably disabling, has challenged the health care providers. Understanding the role of different medical systems in the management of backache is important for the cost-effective management of the disease. Physician treating backache patients should understand this, so that they can co-ordinate and integrate functionally based programs, because no single medication, modality, exercise regimen or other treatment technique may result in low backache recovery. Here in this article, the diagnostic and treatment aspects are discussed critically using Ayurvedic and modern literatures.

Address for correspondence*Dr Vasant Patil**

Professor,
Dept. of PG Studies in
Panchakarma, SSRAMC, Inchal,
Karnataka, India.
Email: ayurvasant@gmail.com

INTRODUCTION

Low back pain (LBP) is an important clinical, social, economic, and public health problem affecting the population indiscriminately. It is a disorder with many possible etiologies, occurring in many groups of the population, and with many definitions. Consequently, the vast literature available on LBP is not only heterogeneous but also contradictory (Manchikanti, 2000). In accordance with the report of World Health Organization in 2002, LBP constituted 37% of all occupational risk factors which occupies first rank among the disease complications caused by work. Such high prevalence of complications at international levels has made the World Health Organization to name the first decade of the third millennium as the "decade of campaign against musculoskeletal disorders (as the silent epidemic)" (WHO, 2005).^[1]

The prevalence of LBP in Indian population has been found to vary between 6.2% (in general population) to 92% (in construction workers). Such large variation can be attributed to the heterogeneity of the population

under study as twenty three out of thirty one studies reporting prevalence were conducted in different occupational groups. This variation in data could also be based on the objectives of the study, demographic features of the study subjects and back pain definition used for the study.^[1]

Low back pain can be medically and economically devastating and is the number one cause for disability in patients younger than forty-five years of age and number three cause for disability in patients older than forty-five years of age. This problem, supposedly has a favorable natural history, although it can be remarkably disabling, has challenged the health care providers. The medical system often fails to identify this disease early and thus leads to disproportionate amount of medical and economic expenses.^[2]

Low back pain is common. The main cause for low back pain is a strain of the muscles, or other soft structures (e.g., ligaments and tendons) connected to the back bones (vertebrae). Sometimes it is the cushion

between the bones (intervertebral disc) which is strained, and which bulges out (herniates) and presses on the nearby nerves (as in sciatica).

Low back pain is pain affecting the lower part of the back. It is described as:

- *Acute* if it has lasted less than 6 weeks.
- *Sub-acute* if it has lasted 6-12 weeks.
- *Chronic* if it has lasted more than 12 weeks.^[3]

Understanding the role of different medical systems in the management of backache is important for the cost-effective management of the disease. Physician treating backache patients should understand this, so that they can co-ordinate and integrate functionally based programs, because no single medication, modality, exercise regimen or other treatment technique may result in low backache recovery.

Causes

Dietetic

Table 1: Dietetic causes of Kati Shoola explained in different classics

Etiology	C.S	S. S	A.H	M.N	B.P
<i>Kashaya</i> (astringent)	-	+	+	-	+
<i>Katu</i> (pungent)	-	+	+	-	+
<i>Tikta</i> (bitter)	-	+	+	-	+
<i>Rooksha</i> (dry)	+	+	+	+	+
<i>Laghu</i> (light)	+	-	+	+	-
<i>Sheeta</i> (cold)	+	-	+	+	-
<i>Alpabhojana</i> (light meal)	+	+	+	-	+
<i>Abhojana</i> (fasting)	+	+	-	+	+
<i>Vallura</i> (dry meat)	+	-	-	-	-
<i>Shuskha Shaka</i> (dried vegetables)	-	+	-	-	-
<i>Uddalaka</i> (variety of barley)	-	+	-	-	-
<i>Neevara</i> (variety of rice)	-	+	-	-	-
<i>Mudga</i> (green gram)	+	-	-	-	-
<i>Masura</i>	+	-	-	-	-
<i>Harenu</i>	+	-	-	-	-
<i>Kalaya</i> (pea)	+	-	-	-	-

Lifestyle causes

Table 2: Lifestyle causes of Kati Shoola explained in different treatises

Viharaja	C.S	S. S	A.H	M.N	Y.R	B.P
<i>Ati Vyayama</i>	+	+	+	+	-	-
<i>Langhana</i>	+	+	-	+	+	-
<i>Plavana</i>	+	+	-	+	+	-
<i>Atyadhwa</i>	+	-	-	+	+	-
<i>Pradhavana</i>	-	+	-	-	-	-
<i>Pratarana</i>	-	+	-	-	-	-
<i>Atyuchabhashana</i>	-	+	-	-	-	-
<i>Balavadvighraha</i>	-	+	-	-	+	-
<i>Abhighata</i>	+	+	-	+	-	+
<i>Marmaghata</i>	-	-	+	+	-	-
<i>Bharaharana</i>	+	-	-	-	+	-
<i>Dukhashayya</i>	-	-	+	+	-	-

A clear description regarding the *Samprapti, Lakshana* of *Kati Graha* is explained by the *Shodhala* in the *Kayachikitsa Khanda, Vataroga Adhikara*. He has described various formulations for *Kati Shoola* and has specifically indicated *Trayodashanga Guggulu* for *Kati Graha*.^[4]

Bhava Prakash has explained *Kati graha* and *Trika Shoola* as a separate disease. He has defined *Trika* as the joint between two hip bones and spinal column, has explained *Trika Shoola Lakshana*, and its management in *Madhyamakhandha* 24th chapter.^[5]

In *Yogaratanakar* under the heading of *Vata Vyadhi*, it has been mentioned as *Kati Sandhigata Vata, Kati Vata, Trika Shoola*. Hence, these can be considered as the synonyms of *Kati Shoola*.^[6]

<i>Dukhasana</i>	+	-	-	-	-	-
<i>Sheegrhayana</i>	+	-	+	+	-	-
<i>Prapedana</i>	-	+	-	-	-	-
<i>Atiadhayana</i>	+	-	-	-	-	-
<i>Ati vyavaya</i>	+	+	+	+	+	+
<i>Atijagarana</i>	+	+	+	+	+	+
<i>Vegadharana</i>	+	+	+	+	+	-
<i>Vishamopachara</i>	+	-	-	+	+	-
<i>ShrAma</i>	-	-	-	-	-	+
<i>Upavasa</i>	+	+	+	+	+	+
<i>PuraVata sevana</i>	-	-	-	-	-	+
<i>Divasvapna</i>	+	-	-	-	-	-

Psychological causes:**Table 3: Psychological causes of Kati Shoola explained in different treatises**

<i>Nidana</i>	C.S	S. S	A.H	M.N	Y.R	B.P
<i>Chinta</i>	+	-	+	+	+	+
<i>Shoka</i>	-	+	+	+	+	-
<i>Krodha</i>	-	-	-	-	-	-
<i>Bhaya</i>	-	-	-	-	+	-

Pathogenesis:

Shoola in *Kati Pradesha* is *Pratyatmaka Lakshana* of *Kati Shoola*. The *Shoola* may be of various types, which occurs by provoked *Vata Dosha*. In a typical case, pain is confined to the *Kati Pradesha* or the Lumbo sacral and sacroiliac region only. Pain can arise due to the vitiated *Vyana Vata*, which dries up the *Shleshaka Kapha* in the joints creating friction. If the vitiation is due to any *Abhigata* pain can manifest because of injury to the *Sandhi* as well as the surrounding structures. Radiation of pain towards the lower limb is not seen in a typical case, but can be found in few low back disorders where there is a defect in the Inter vertebral discs, which is giving tension to a nerve root passing out.

The vitiated *Vata* when it takes *Ashraya* in *Kati Pradesha* it leads to the *Shoshana* of the *Shleshaka Kapha* present in the *Sandhis* there. The *Shoshana* of *Shleshaka Kapha* leads to the hampered functioning of the joints preventing all the movements at the *Kati Pradesha*. Thus, the movements at the Lumbo-sacral region like flexion, extension, lateral flexion and rotation are hampered either completely or partially. The degree of affection varies depending on the presentation of etiological factors, such as the site of the structures injured and the extent of injury and duration.

MANAGEMENT**Advantages of Ayurvedic Management over modern management**

Arrests the process of degeneration & helps in regeneration of soft tissue damages.

Prevention of disc prolapse or disc rupture.

Ayurvedic drugs do not produce hyperacidity, stomach or duodenal ulcer etc

Some important Guidelines:

- The main thing about most low back pain is *do not worry* - it will usually get better on its own, within a few days, or possibly a few weeks.
- *Stay active*, and if at all possible, stay at work.

- The pain may force you to rest, but this is a result of the pain, and *not* a good treatment for back pain. If you have to take to your bed, limit it, if possible, to a day or two at the most.
- If it seems to be lasting more than a few days, consider seeing a specialist.
- If you do have to be off work, keep this to a minimum, and do not expect to be pain free before you go back. [7]

Panchakarma

Snehana: *Snehapana* can be adopted in *Kati Shoola* except in conditions of *Ama*, *AvritaVata*, *Ajeerna*, *Aruchi* etc. [8] In case of associated *Ama* or *Kapha Dosha*, *Langhana* and *Pachana* are the first line of treatment preceding *Snehapana* to facilitate the *Niraamaavasta*. Both *Ghrutha Paana* and *Taila Paana* can be effectively adopted according to the conditions after attaining *Niraamaavasta*. *Bahya Snehana* can be performed in the form of *Snehadhara*, *Abhyanga*, *Avagaha*, *Parisheka*, *Kati Basti* etc.

Swedana: *Kati Shoola* is a *Sweda Sadhya Vyadhi*. [9] Among the different forms of *Sweda* procedures, *Avagaha Sweda*, *Pizhichil*, *Nadi Sweda*, *Patra Pinda Sweda*, *Pinda Sweda*, and *Upanaha Sweda*, *Kati Basti* may be performed efficiently in *Kati Shoola*. *Swedana* is also useful in relieving pain, restricted movement in *Kati Pradesha*. It can be done in entire body or in affected part of the body like *Kati*, *Prishta* etc. alone.

Mridu Samshodhana: *Virechana* has an important role in chronic LBP. In *Vata Vyadhi* most of the authors mentioned *Mridu Virechana*. *Eranda Taila* is recommended for *Nitya Virechana* [10]

Basti: For the *Chikitsa* of *Kati Shoola*, various types of *Nirooha* and *Anuvasana Basti* are mentioned in classics, these are;

- 1) *Erandamuladi Niruha Basti* in *Kati Shoola* [11]
- 2) *Vaitarana Basti* in *Kati Shoola* [12]
- 3) *Pippalyaldi Anuvasana* [13]

Shamana

Table No: 4 Shamana Aushadhi for Kati Shoola

1) 2) 3) 4) 5)	Kashaya <i>Sahacharadi Kashaya</i> ^[14] <i>Dashamoola Kashaya</i> ^[15] <i>Rasna-erandadi Kashaya</i> ^[16] <i>Rasnadi Kashaya</i> ^[17] <i>Maharasnadi Kashaya</i> ^[18]
1) 2) 3)	Choorna <i>Ashvagandhadi Churna</i> ^[19] <i>Ajamodadi Choorna</i> ^[20] <i>Chopachini Choorna</i> ^[21]
1) 2) 3)	Leha <i>Eranda Paka</i> ^[22] <i>Aja Mamsa Rasayana</i> ^[23] <i>Amrita Bhallataka Leha</i> ^[24]
1) 2)	Guggulu <i>Mahayogaraj Guggulu</i> ^[25] <i>Trayodashanga Guggulu</i> ^[26] <i>Lakshadi Guggulu</i> ^[27]
1) 3) 5)	Sneha <i>Sahacharadhi Taila</i> ^[28] <i>Mahamasha Taila</i> ^[29] <i>Prasarini Taila</i> ^[30]

Pathya – Apathya

Pathya^[31]

Table 5: Pathya in Kati Shoola

Ahara		
1	<i>Rasas</i>	<i>Madhura-Amla-Lavana</i>
2	<i>Shukadhanya</i>	<i>Nava Godhuma, Nava Shali, Rakta Shali, Shashtika Shali</i>
3	<i>Shimbi Varga</i>	<i>Nava Tila, Masha, Kulatha</i>
4	<i>Shaka Varga</i>	<i>Patola, Shigru, Vartaka, Lashuna</i>
5	<i>Mamsa Varga</i>	<i>Ushtra, Go, Varaha, Mahisha, Magura, Bheka, Nakula, Chataka, Kukkuta, Tittira, Kurma</i>
6	<i>Jala Varga</i>	<i>Ushnajala, Shrithasheetajala, Narikelajala</i>
7	<i>Dugdhavarga</i>	<i>Go, Aja, Dadhi, Ghritha, Kilata, Kurchika</i>
8	<i>Mutravaga</i>	<i>Gomutra</i>
9	<i>Madyavarga</i>	<i>Dhanyamla, Sura</i>
10	<i>Snehavarga</i>	<i>Ghritha, Tila, Vasa, Majja</i>
11	Present day food stuffs	Orange juice, carrot, all fibrous fruits and Vegetables
Vihara		
1	<i>Veshtana, Trasana, Mardana, Snana, Bhushayya</i>	
2	Present day & activities: Physiotherapy exercise, Yoga Asana, Steam bath	

Apathya:^[32]

Table 6: Apathya in Kati Shoola

Ahara		
1	<i>Rasas</i>	<i>Katu, Tikta, Kashaya</i>
2	<i>Shukadhanya</i>	<i>Truna, Kangu, Koradusha, Neevara, Shyamaka</i>
3	<i>Shimbivarga</i>	<i>Rajamasha, Nishpava, Mudga, Kalaya</i>
4	<i>Phalavarga</i>	<i>Jambu, Udumbura, Kramuka, Tinduka</i>
5	<i>Mamsa varga</i>	<i>Sushka mamsa, Kapota, ParaVata</i>
6	<i>Jala varga</i>	<i>Sheetajala</i>
7	<i>Dugdhavarga</i>	<i>Gardabha</i>
8	Present day food stuffs	Fast food, cold beverages, liquor
Vihara		
1	<i>Manasika:</i>	<i>Chinta, Shoka, Bhaya</i>
2	Daily activities	Long standing sitting, driving, staying in AC etc.

DISCUSSION

Kati Shoola is not mentioned as a separate disease in any of the Brihatrayees directly. Even though Acharya Charaka has not mentioned the condition directly, but by his quotation "*Hetu Sthaana Visheshat Ca Bhavet Roga Visheshha Krit*" he has indirectly mentioned all those conditions which can arise due to localization of *Vata* in specific parts of the body.

Kati is an area where there is a conglomeration of various *Sandhi*, *Snaayu* and *Peshi*. *Sandhi* is a place where two or more structure unites. *Sandhi* is not a single structure rather it is considered as an organ. There are different structures, which helps in maintaining the stability of the joint. *Snaayu* or ligament, are those structures which helps in proper binding of the joint. They unite the bones and help to direct the movement and prevent the excessive and undesirable motion. Muscle tone helps to maintain the alignment of the joint. *Shleshmadharakala* situated in the joints supported by *Shleshaka Kapha* helps in lubrication, provides nutrients and helps in keeping the joint firmly united. Therefore the vitiation of *Vata* can cause pathologies of these structures in the *Kati Pradesha* leading to their hampered functioning.

CONCLUSION

Kati Shoola may occur independently or as a complication in many diseases which should be kept in mind while doing clinical examination. The management depends on the stage such as *Svatantra* or *Paratantra*, *Naveena* or *Purana*, *Saama* or *Niraama*. *Kati Shoola* can be effectively managed by judicious use of *Panchakarma*, *Shamana*, and by following diet and lifestyle.

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