



Case Report

Efficacy of traditional treatment regimen on *Kati Shoola* with special reference to lumbar spondylolisthesis

E. R. H. S. S. Ediriweera, H. D. P. Gunathilka¹, K. D. C. M. Weerasinghe², O. T. M. R. K. S. B. Kalawana³

Professor, Department of Nidana Chikitsa, Institute of Indigenous Medicine, University of Colombo, Rajagiriya,

¹Medical Officer, ²Medical Officer, Ayurvedic Teaching Hospital, Borella, ³Probationary Lecturer, Institute of

Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka

Abstract

According to Ayurveda, *Kati Shoola* is a disease with pain in lumbar region. Lumbar spondylolisthesis, anterior displacement of a vertebra or the vertebral column in relation to the vertebrae below, is one of the common causes. Current case study was carried out at Ayurveda Teaching hospital, Borella, to evaluate the efficacy of a treatment regimen used by Sri Lankan traditional physician family “Weerasinghe.” A 59-year-old female with a 9-month history of lumbar spondylolisthesis was treated with this regimen. The patient had progressive pain in left lower back, right and left buttocks, and difficulty in bending forward over 5°. X-ray of lumbo sacral region indicated that patient was suffering from Grade 3 lumbar spondylolisthesis. She was treated for 65 days with four treatment packages consisting of 13 prepared medicines. The response to the treatment was recorded and therapeutic effects were evaluated through symptomatic relief. Clinical symptoms were significantly reduced and degree of anterior flexion increased from 5° to 90°. However, X-rays indicated that the patient was still suffering from Grade 3 lumbar spondylolisthesis. This regimen is effective in successfully treating *Kati Shoola* (lumbar spondylolisthesis) by helping to reduce the symptoms and improving the degree of anterior flexion.

Key words: *Kati Shoola*, lumbar spondylolisthesis, traditional medicine

Introduction

Kati Shoola is a disease which is mainly caused by vitiation of *Vata Dosha*. Some ancient texts also describe *Kati Shoola* as a symptom of some disorders such as *Kati Graha*, *Trika Graha*, *Prushta Graha*, *Kati Vayu*, *Trika Shoola*, *Prushta Shoola*, *Vataja Shoola*, *Trika Vedana*, and *Grudrasi Vata*.^[1-3] The word “spondylolisthesis” comes from the Greek words “spondylos” meaning spine or vertebra and “listhesis” meaning to slip or slide. Spondylolisthesis describes the anterior displacement of a vertebra or the vertebral column in relation to the vertebrae below. It occurs most often in the lumbar spine. Most patients are asymptomatic. Sometimes pain in the low back, thighs, and/or legs, which radiates into the buttocks, muscle spasms, leg pain, or weakness, tight hamstring muscles, and irregular gait can be seen.^[4] This condition can be correlated with *Kati Shoola*.

The treatment regimen, which is described here, is used by the eminent Sri Lankan traditional physician family “Weerasinghe”

to treat patients suffering from *Kati Shoola* successfully. The duration of the treatment is 65 days, using 13 different Ayurvedic and Sri Lankan traditional medicines. So far, no scientific evaluation has been carried out on the efficacy of this treatment regimen. Hence, this clinical study was undertaken.

Case Report

A 59-year-old woman, who attended the Outdoor Patients Department of Ayurvedic Teaching Hospital, Borella, for treatment of her lower back pain, was selected and admitted to the ward. She had a 9-month history of progressively increasing pain in left lower back and both buttocks, but no pain in both legs. She was an otherwise healthy farmer, capable of doing heavy work. She had no history of trauma and her symptoms have increased gradually.

On physical examination, prominence of the upper posterior border of the sacrum was observed on the lower back. Patient had little discomfort in buttocks on turning to the lateral side. Straight leg raising test was negative in both legs. She could flex the body forward up to 5°. Motor and sensory functions were normal in right and left legs and both deep and superficial reflexes were also normal.

Address for correspondence: Prof. ERHSS Ediriweera, Department of Nidana Chikitsa, Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka. E-mail: ayurvedadocsujatha@yahoo.com

All details of the patient including present history, past history, treatment history, dietary habits, lifestyle, and addictions were recorded before the treatment. Necessary examinations and X-rays in lumbo sacral region were done and findings were recorded. Patient was kept on a normal diet without any specific restrictions and was advised not to lift any weights. The patient was treated with four treatment regimens for 65 days. Details are as below.

First treatment regimen (day 1-10)

The patient was treated for 10 days with 120 ml of decoction of *Eranda Saptaka* with *Rasona Methi Abhaya* and 30 ml of *Punarnawasawaya* twice a day before meals. She was also given two pills of *Chandraprabha* each weighing 250 mg with lukewarm water and 5 g of powder of *Safufe Surinjan* with honey twice a day after meals. Thirty milliliters of *Nirgundi* oil was applied on *Kati Pradesha* (lumbar region).

Second treatment regimen (day 11-20)

During the next 10 days, the patient was treated internally with 120 ml of decoction of *Madhu Yashtee Nisha Yugma*, and 5 g each of paste of *Nawarathna* and *Thripala Churna* twice a day before meals.

Siddhartha Taila Pichu was also carried out by soaking 20 g of cotton in 60 ml of *Siddhartha Taila* and keeping over *Kati Pradesha* for 60 minutes in the morning at 10.00 a.m. Then, in the afternoon at 2.00 p.m., 30 g of paste of *Ankenda* paste was applied on the lumbar region and kept on for 120 minutes.

Third treatment regimen (day 21-40)

For the third regimen of the treatment, patient was treated internally and externally as mentioned in the second treatment regimen. Additionally, 120 ml of decoction of *Dashamula Wenivelgeta* was given twice a day before meals from day 21 to day 40.

Fourth treatment regimen (day 41-65)

From day 41 to 65, the patient was treated internally with 120 ml each of decoction of *Dashamula Wenivelgeta* and decoction of *Punarnawashtaka* twice a day before meals. *Siddhartha Taila Pichu* was performed as described in the second treatment regimen. Thirty grams of paste of *Wellangiriya* was applied on lumbar region in the afternoon at 2.00 p.m. and kept on for 120 minutes.

Preparation of drugs

All medicines were prepared at the Pharmacy, Ayurveda Teaching Hospital, Borella, Sri Lanka, according to the Ayurvedic Pharmacopoeia, Department of Ayurveda, Sri Lanka. Decoction of *Punarnawashtaka*, *Punarnawasawaya*, pills of *Chandraprabha*, *Thripala Churna*, and *Nirgundi* oil were prepared according to the methods given in the classical text.^[5] *Bhaishayja Ratnavali*.

Preparation of decoction of *Dashamula Wenivelgeta*

Five grams each of roots of *Dashamula*, seeds of *Coriandrum sativum* (*Dhanyaka*) and stem of *Coscinum fenestratum* are boiled together in 1920 ml of water until the final volume is reduced to 240 ml.

Preparation of decoction of Eranda Saptaka with Rasona Methi Abhaya
Six grams of each of the ingredients of decoction of

Eranda Saphthaka, pericarp of *Terminalia chebula* (*Abhaya*), seeds of *Trigonella foenum* (*Methika*), and bulb of *Allium sativum* (*Rasona*) are boiled together in 1920 ml of water until the final volume is reduced to 240 ml.

Preparation of decoction of *Madhu Yashtee Nisha Yugma*

8.5 g each of roots of *Glycyrrhiza glabra* (*Madhuyashti*) and *Stereospermum suaveolens* (*Patala*), stem of *Coscinum fenestratum*, rhizomes of *Curcuma longa* (*Haridra*), tubers of *Cyperus rotundus* (*Mustaka*), stem bark of *Azadirachta indica* (*Nimba*), and *Cassia fistula* (*Vyadighata*) are boiled together in 1920 ml of water until the final volume is reduced to 240 ml.

Preparation of paste of *Nawarathna*

Five grams of each of finely powdered seeds of *Cuminum cyminum* (*Jeeraka*), *Nigella sativa* (*Krishna Jeeraka*), *Carum copticum* (*Ajamoda*), *Vernonia anthelmintica* (*Atavi jeeraka*), *Myristica fragrans* (*Jatiphala*), fruits of *Piper longum* (*Pippali*), mace of the fruits of *M. fragrans*, calyx of *Eugenia caryophyllus* (*Lavanga*), stem of the *G. glabra*, roots of *Piccorrhiza curroa* (*Tikta*), rhizomes of *Zingiber officinalis* (*Shunti*), resins of *Ferula foetida* (*Hingu*), 130 g of finely powdered pericarp of *T. chebula* (*Abhaya*), and 65 g of finely powdered pericarp of *Terminalia bellirica* (*Bibhitaka*) are ground well, adding honey, till it becomes a fine paste.^[6]

Preparation of powder of *Safufe Surinjan*

Forty-eight grams of roots of *Colchicum luteum* (*Surinjan*), 12 g each of seeds of *C. cumminum*, leaves of *Cassia angustifolia* (*Swarnapatrika*), *Mentha viridis* (*Pudina*), 36 g of pericarp of *T. chebula*, and 144 g of sugar candy are powdered together.

Preparation of *Safufe Surinjan*

Five hundred grams of each of the roots of *Aegle marmelos* (*Bilva*), *Premna intergrifolia* (*Agnimantha*), *Oroxylum indicum* (*Shyonaka*), *Stereospermum suaveolens* (*Patala*), *Gmelina aborea* (*Kashmarya*), *Solanum melongena* (*Vruhathi*), and *Ricinus communis* (*Eranda*), and entire plant of *Alysicarpus Vaginalis* (*Bhumi Shalaparani*), *Aerava Lanata* (*Astmabayda*), *Solanum Xanthocarpum* (*Kantakari*), *Tribulus terrestris* (*Gokshura*), and *Sida cordifolia* (*Bala*) are boiled in 92.16 l of water until the volume is reduced to 23.04 l and then filtered. 23.04 l each of extract of rhizomes of *Asparagus racemosus* (*Shatawari*), fresh cow's milk, and 5.76 l sesame oil are mixed with the above decoction and heated. Sixty grams of each of finely powdered seeds of *Peucedanum graveolens* (*Shatapushpa*), *Elettaria cardamomum* (*Ela*) and *Carum copticum* (*Ajamoda*); rock salt, stems of *Santalum album* (*Shwetha Chandana*), *Pterocarpus santalinus* (*Rakta Chandana*), and *Coscinum fenestratum*, roots of *Withania somnifera* (*Vaji Gandha*) and *Nardostachys jatamansi* (*Jatamansi*), rhizomes of *Acorus calamus* (*Vacha*), *Alpinia galanga* (*Rasna*), and *Zingiber officinalis*, entire plant of *Rubia cordifolia* (*Manjishta*), fruits of *P. longum* (*Pippali*) and *Saussurea lappa* (*Kushta*), purified *Shilajatu*, and rock alum (*Sinhala name: Galmada*) are added to the above solution. The whole mixture is heated while stirring continuously, and when it reaches "Samapaka" stage, the medicated oil is taken out from the fire, allowed to cool down, and filtered.^[6]

Table 1: Evaluation of clinical symptoms

Symptom	Before treatment	After treatment
Pain in low back	Grade 4	Grade 1
Pain in left buttock	Grade 3	Grade 0
Pain in right buttock	Grade 4	Grade 2
Degree of anterior flexion	5°	90°

Grade 0: No Pain; Grade 1: Occasional pain; Grade 2: Intermittent pain; Grade 3: Frequent pain; Grade 4: Continuous pain.

Preparation of paste of Ankenda

Sixty milliliters of juice is extracted from leaves of *Acronychia pedunculata* (Ankota). Ten grams of finely powdered alum sulfate (*Sphaticari*) is added to it and heated until a semi-solid paste is obtained.

Preparation of paste of Wellangiriya

Forty grams of leaves of *Paramignya monophylla* is ground with 5 g of rhizomes of *Curcuma longa* and 5 g of common salt (*Samudra Lawana*), till it becomes a fine paste.

Results and Discussion

Response to the treatment was recorded, and therapeutic effects were evaluated by symptomatic relief of the patient. It was observed that the patient's clinical symptoms were reduced gradually during the treatment period [Table 1]. Although these symptoms were reduced completely or partially at the end of the treatment, the X-ray of lumbar sacral region showed that there was no change in the condition of lumbar spondylolisthesis and the patient was still having Grade 3 lumbar spondylolisthesis.

According to the Ayurveda, *Shoola* (pain) occurs due to vitiation of *Vata Dosha*. *Vata Dosha* is vitiated by *Srotas Awaroddata* (obstructions of channels) and *Dhathu Kshaya* (depletion of tissues/malnutrition). In *Kati Shoola* *Apana Vata* is mainly involved. So, the aim of the treatment is to pacify vitiated *Vata Dosha*, especially *Apana Vata*.

Ingredients of decoctions of *Dashamula Wenivelgeta*, *Eranda Sapthaka* with *Rasona Methi Abhaya*, *Madhu Yashtee Nisha*

Yugma and *Punarnawashtaka*, *Punarnawasawaya*, pills of *Chandraprabha*, powders of *Safufe Surinjan* and *Thripala*, paste of *Nawarathma*, oil of *Nirgundi* and *Siddhartha*, and pastes of *Ankenda* and *Wellangiriya* have the properties of *Vata Shamaka* (pacify the vitiated *Vata Dosha*), *Vedana Sthapana* (sedative), and *Shoola Prashamana* (analgesic), *Tarpana* (enhance the nutrition), *Balya* (promote strength), *Rasayana* (rejuvenation), and *Srotha Shodana* (purifying channels). As the drugs used in the present study have the above properties, they are beneficial for diseases originating by vitiation of *Vata Dosha*. These drugs also have the properties of *Tarpana* (enhancing nutrition), *Balya* (promoting strength), and *Rasayana* (rejuvenation), and help in improving the qualities of *Asthi Dhatu* (bones) and reformation of wasting tissues. Patient suffering from *Kati Shoola* showed a significant symptomatic relief with this treatment regimen.

Conclusion

It is concluded that this treatment regimen completely or partially relieves the symptoms in *Kati Shoola* (lumbar spondylolisthesis). These medicines can be utilized in treating patients who are suffering from *Kati Shoola*, to reduce both signs and symptoms successfully and with greater effectiveness. It is proposed that the therapy may be accepted as a treatment method of *Kati Shoola* (lumbar spondylolisthesis).

References

- Sharma PV, editor, Charaka Samhita, Chikitsa Sthana, Vata Vyadhi Chikitsa Adhyaya, 28/28, 2nd ed. Varanasi: Chaukhamba Sanskrit Sansthan; 1990. p. 225.
- Murthy KR, editor and translator. Susruta Samhita, Nidanasthana, Vata Vyadhi Nidana 1/20. Varanasi, India: Chaukhamba Orientalia; 2000. p. 102-10.
- Murthy KR, editor and Translator. Madhava Nidana, Vata Vyadhi Nidana 22/14, 57. Varanasi, India: Chaukhamba Orientalia; 1986. p. 65-90.
- Hasiett C, Chilvers ER, Boon NA, Colledge NR, Hunter JA, editors. Davidson's Principles and Practice of Medicine. Edinburgh, London, New York, Sydney, Toronto: Churchill Livingstone; 2002. p. 325-30.
- Sri Govindadasa. Baishajyaratnavali with Vidyothini Hindi Vyakhya. Varanasi, India: Chaukhamba Orientalia; 1991.
- Anonymous, Department of Ayurveda, Ayurveda Pharmacopoeia, Volume 2. Colombo, Sri Lanka: Department of Ayurveda; 1994. p. 228-303.

हिन्दी सारांश

कटिशूल पर (लम्बर स्पोंडिलोलिस्थेसिस के परिप्रेक्ष्य में) आयुर्वेद एवं पारम्परिक चिकित्सा की प्रभावकारिता का चिकित्सीय मूल्यांकन

ई. आर. एच. एस. एस. इडीरिवीरा, एच. डी. पी. गुनाथिलका, के. डी. सी. एम. वीरासिंगे, ओ. टी. एम. आर. के. एस. बी. कलावना

आयुर्वेद में कटि प्रदेश में होने वाली वेदना को 'कटिशूल' नामक व्याधि से सम्बोधित किया गया है। कटिशूल के कई कारणों में से एक कारण 'लम्बर स्पोंडिलोलिस्थेसिस' (अग्र कशेरुक विस्थापन अथवा कशेरुक दण्ड से सम्बन्धित निम्नस्थ कशेरुक विस्थापन) भी है। इस उपचार की प्रभावकारिता के मूल्यांकन का व्यष्टि अध्ययन श्रीलंका के पारम्परिक चिकित्सक परिवार वीरासिंगे द्वारा आयुर्वेद प्रशिक्षण अस्पताल बोरैला में किया गया। एक ५९ वर्षीय महिला जिसे नौ माह से 'लम्बर स्पोंडिलोलिस्थेसिस' का इतिवृत्त था, इस उपचार द्वारा उसकी चिकित्सा की गई। रोगी को पश्च निम्न वाम, दक्षिण, वाम नितम्ब एवं ५ अंश (डिग्री) अग्र झुकाव में कठिनाई हो रही थी। कटि-त्रिक प्रदेश क्ष-किरण परीक्षण के अनुसार रुग्णा ग्रेड - ३ 'लम्बर स्पोंडिलोलिस्थेसिस' से पीड़ित थी। रुग्णा की चार चिकित्सीय पैकेज के द्वारा ६५ दिनों तक चिकित्सा की गई जिसमें तेरह प्रकार की तैयार औषधियाँ निहित थीं। एक से दस दिन तक, क्वाथ-एरण्ड सप्तक, रसोन मेथी अभया, पुनर्नवासव, चन्द्रप्रभावटी और सफूफे सुरंजान आन्तरिक प्रयोग हेतु एवं निर्गुण्डी तैल बाह्य-प्रयोग हेतु; ११-२० दिन तक क्वाथ-मधुयष्टि निशा युग्म नवरत्न कल्प एवं त्रिफला चूर्ण आन्तरिक प्रयोग हेतु एवं सिद्धार्थ तैल का पिचु और अन्केन्दा कल्क बाह्य प्रयोग हेतु; २१-४० दिन तक, क्वाथ व्यवस्था की औषधियाँ; दिन ४१-६५ क्वाथ-दशमूल वेनीवेल्जेटा, पुनर्नवाष्टक आन्तरिक प्रयोग हेतु और सिद्धार्थ तैल, वेलैनजीरिया कल्क बाह्य प्रयोग हेतु। चिकित्सीय प्रतिक्रिया एवं प्रभाव का मूल्यांकन लाक्षणिक लाभ के आधार पर अभिलेखित किया गया। नैदानिक लक्षणों में काफी हद तक सुधार पाया गया और अग्र घुमाव में ५-९० अंश कोण की वृद्धि पायी गयी जब कि क्ष-किरण परीक्षण अभी भी यही प्रदर्शित कर रहा था कि रुग्णा ग्रेड - ३ 'लम्बर स्पोंडिलोलिस्थेसिस' से पीड़ित है। यह चिकित्सीय व्यवस्था 'कटिशूल' के उपचार में सफलतापूर्वक प्रभावी सिद्ध हुई है जिसके द्वारा लक्षणों में सुधार एवं अग्र घुमाव के अंश कोण में सुधार पाया गया।

Announcement

Android App



Download
Android
application

FREE

A free application to browse and search the journal's content is now available for Android based mobiles and devices. The application provides "Table of Contents" of the latest issues, which are stored on the device for future offline browsing. Internet connection is required to access the back issues and search facility. The application is compatible with all the versions of Android. The application can be downloaded from <https://market.android.com/details?id=comm.app.medknow>. For suggestions and comments do write back to us.