



## Case Report

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# The Management of Katishoola (vertebral Compression fracture) through Panchakarma- A case study

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## ABSTRACT

**Background:** In present era low backache (*Katishoola*) is a common complain among the patients visiting hospital for treatment. There are various causes for low backache like compression fracture, inter vertebral disc prolapse [IVDP], Lumbar spondylosis, tuberculosis of spine etc. About 39% of the population present complaints of low back pain at some point in their lives, Incidence is more in females aged between 40 and 80 years. vertebral compression fracture (VCF) are one of the cause of severe low backache. VCF is a common fracture of the spine. The symptoms of VCF are back pain, numbness, tingling, and weakness and intensity of pain increase while standing or walking. It can be correlated with *Katishoola in Ayurveda*. In contemporary science there is no treatment except some invasive procedure like vertebroplasty. Here in this case pain in lower backache associated with tingling sensation managed with Ayurveda *Panchakarma* treatment like *Matra Basti, Katibasti, Pinda Swedana*. The collected data shows that *Panchakarma* therapy along with oral medicine gave encouraging effect in low backache. **Material and method:** In this study the patient with complaint of pain in lower back, tingling sensation, unable to stand for long duration approached to the OPD of Panchakarma, AIIA hospital. He was managed with *Panchakarma* therapies along with oral medicines. Effect of treatment was assessed before and after the treatment on presenting complaints. **Result and observation:** Significant improvement was noticed after the treatment. Pain was reduced significantly. There was reduction in VAS scale, SLR, Marked improvement was noticed in Score of Oswestry low back pain index, Low back outcome score (LBOS). **Discussion:** In this case study we are focusing in the management of low backache due to wedge compression fracture through *Ayurveda* oral medicine along with *Panchakarma* to further deterioration of the condition of the patient.

**Keywords:** Vertebral Compression Fracture, Low Backache, *Katishoola, Panchakrama, Matrabasti, Patrapinda Swedana*.

## INTRODUCTION

Ageing is ongoing process along with degeneration in body. But today's altered life style is bringing the process of degeneration too early and resulting in development of degenerative diseases, most common being arthritis, spondylosis, PID, low back pain etc. *Katishoola* (Low back pain) is classified into specific and non-specific types. In 90% cases no identified cause are known, and 10% remaining cases are identified such as fracture, infection, cancer etc. Vertebral compression fracture (VCF), is a common fracture of the spine. The body of vertebra suffered a crush or wedging injury. The commonest risk factor for compression fractures is Osteoporosis. If spinal cord or nerves are involved then bowel/bladder dysfunction along with numbness, tingling sensation and weakness in the limbs occur. patient with VCF have 5 times more risk of second VCF [1]. Acharya Charaka has described 80 types of *Vatavyadhi* known as *Nanatmajavatavyadhi, kati shoola* is one among them. It characterized by *Kati pradeshevedana* (pain in lower back region), *Kati shunyata* (numbness in lower back), *Hasta-pada suptata* (numbness in legs). With Ayurvedic approach to cure *katishoola* by Panchakarma like *Matrabasti, katibasti* and *patra pinda swedana* and oral medicine gave promising results without any side effect.

## MATERIALS AND METHODS

Type of study- The present study is a case report on the prospective study of *Ayurveda* treatment in the management of patient diagnosed with low backache due to VCF.

Source of Data- A patient referred to the Department of *Panchakarma*, AIIA, Sarita Vihar, New Delhi 110076.

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## CASE REPORT

A 56-year old male patient, UHID 377446, presented with pain in lower back localized to the region of the lumbar spine due to which he was unable to stand for longer duration of time since last 1 month. he was also complaining of tingling sensation in back radiating to bilateral lower limbs. After taking the detailed history. Patient explained that the pain occurred while he was lifting the heavy weight and it get worst day by day so he went for medical treatment in allopathic hospital. Where MRI revealed chronic centra wedge compression fracture at L1 and mild canal stenosis. He took some conservative treatment for the same but does not get significant relief in pain.

He rated his pain as 8/10 on the Visual Analogue Scale (VAS) where 0 is "no pain" and 10 is the "worst pain that he had ever experienced." The pain was described as sharp and stabbing, Radiating and it was exacerbated by direct pressure over the painful area and any movements of the lower axial spine. He denied any difficulty with bowel and bladder function. Past medical history revealed that he had been diagnosed with "mild" osteoporosis two years prior. Systems examination and family health history was unremarkable. He had no addiction and previous history of any back injury. He was having trouble in getting a sleep due to lower back pain.

## Investigations

MRI (10/05/19)

- Chronic central wedge compression fracture (10-20% reduction in height), L1 caved in superior end plate, mild canal stenosis.
- L5-S1 Mild central canal stenosis with bilateral facets joint arthropathy.
- Broad based postero central disc protrusion with posterior annular tear at L4-5 causing indentation upon the thecal sac mild to moderate narrowing of B/L Neural foramina. Moderate central can stenosis.

## Personal history

Vegetarian with Irregular bowel, disturbed sleep (due to pain), no addiction of alcohol and smoking.

Assessment Criteria: Range of movement SLR was measured by Goniometer. Visual Analogue Scale (VAS) is used for pain; Improvement was assessed by Low back outcome score (LBOS) and Oswestry disability index.

**Table 1: Dashavidha Pariksha**

Sl. no.	Factor	Observation
1.	Prakriti	Vatakaphaja
2.	Vikriti	PravaraTridoshaja
3.	Saara	Twaka
4.	Samhanana	Madhyama
5.	Satmya	Madhyama
6.	Satva	Madhyama
7.	Aahar shakti	Madhayama

8.	Vayama shakti	Avara
9.	Vaya	Pravara
10.	Bala	Madhayama
11.	Prakriti	Vatakaphaja

**Table 2:** Following Oral medications were given

Sl. no.	Drug	Dose	Anupana
1.	Dashmoola Kwatha [2].	40 ml, twice a day before food	Luke warm water
2.	Lakshadi Guggulu [3].	500 mg thrice a day, after food	Luke warm water
3.	Gandha taila [4].	10 drops twice a day, after food	Luke warm Milk
4.	Ashwagandha choorna [5]. + Guduchi choorna [6].	2 gm each twice a day, after food	Luke warm water
5.	Eranda Taila [7].	10 ml bed time	Luke warm water

**Table 3:** Panchakarma procedures with quantity and duration

Sl. no.	Procedure	Drug used	Quantity	Days
1.	Choorna Pinda Swedana	Kolkulathadi Choorna [8]. Dhanwantaram taila [9].	Q.S	14 days For 30 minutes
2.	Matra Basti	Sahacharadi taila [10].	60 ml	14 days
3.	Kati Basti	Dhanwantaram taila Murivenna taila (lukewarm oil)	Q.S	14 days For 30 minutes

**Table 4:** Pain was assessed by VAS score

Sl. no.	Score	Before treatment	After treatment
1.	0 to 10	8	2

**Table 5:** straight leg raising test

Before treatment		After treatment	
Right leg	Left leg	Right leg	Left leg
45 degree	35degree	55 degree	42 degree

**Table 6:** Oswestry low back pain index

Sl. no.	Score	Before treatment	After treatment
1.	0-20% minimal disability 21-40% moderate disability 41-60% severe disability 61-80% crippled disability 81-100%	55% (severe disability)	24% (moderate disability)

**Table 7:** Low back outcome score (LBOS)

Sl. no.	Score	Before treatment	After treatment
1.	≥ 65 Scoring (Excellent status)	27	45

50 - 64 Scoring (Good status)	(Poor status)	(Fair status)
30 - 49 Scoring (Fair status)		
0 - 29 Scoring (Poor status)		

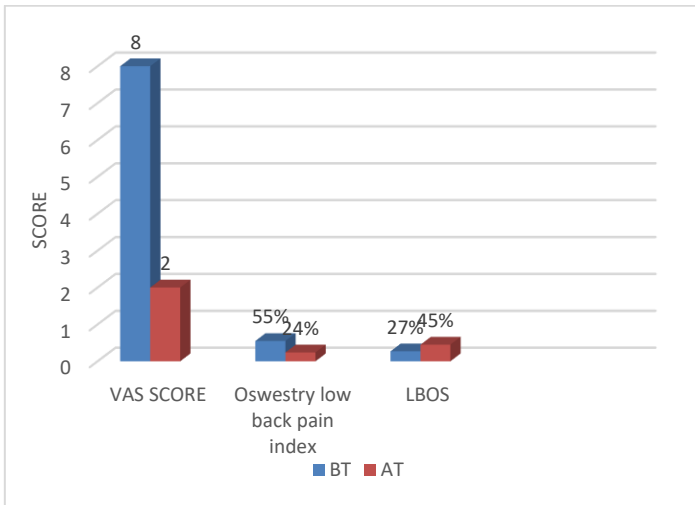


Figure 1: Overall improvement after treatment

## DISCUSSION

In Ayurveda *Katishool* is considered as a *Vataja* disorder and mainly caused due to *Vata Prakopa*. In present case study, the patient presented with a vertebral fracture causing severe lowback pain with numbness. Acharya Sushruta has mentioned that pain occurs due to vitiation *Vata Dosha's*. *Dhatu Kshaya* (depletion / malnutrition) and *Srotas Avarodh* (channel obstructions) main pathological cause for aggravation *Vata Dosha*.

In this case the *vata prakopa* was mainly due to *dhatukshaya* in general and *asthi kshaya* in particular among *vata types Apana Vata* is mainly involve in *Kati Shoola*. The purpose of the therapy, therefore, is to pacify vitiated *Vata Dosha*, particularly *Apana Vata*. so *Snehana*, *Swedana* and *Basti Karma* were adopted to pacify *vata dosha* and regulate its movement.

### Shamana Chikitsa

*Dashmoola kwatha* - *Dashmoola* is a well-known ayurvedic medicine having *Tridosha shamak*. Due to its *Ushna guna* it pacifies the vitiated *Vata Dosha* which is the main culprit for the disease. *Dashmoola kwatha* had anti-inflammatory, analgesic properties.

*Lakshadi guggulu* - it contains *Asthishrinkhala*, *Ashwagandha*, *Guggulu*. In animal studies *Asthishrinkhala* neutralized the antianabolic effect of cortisone in healing of fracture. Here yield anabolic oxo steroid which accelerate healing of fracture *Guggulu* which is *Vedana shamaka* and mainly indicated in *bhagna*.

*Ashwagandha* - Due to its *Snigdha Guna*, *Ushna Virya*, is *Vatakaphashamak*, *Balya* (strength promoting), *Rasayan* and *Vedanashamak* properties. *Withaferien* act as a tonic and tissue vitalizer. It decreasing pain and swelling (inflammation), also prevent the effects of aging.

*Giloya choorna* - *Ras Tikta*, *Katu*, *Kashaya*, *Guru Snigdha Guna*, *Virya Ushna*. *Snigdha* and *Ushna Guna* which pacifies the *Tridosha Shamak*,

*Rasayana* (improves immunity due to its immuno-modulatory effects). Mild Antipyretic, analgesic (*Vedana Sthapak*), antioxidant properties. Because of its antioxidant property it inhibiting the inflammatory mediators and cytokines.

*Gandha taila* - It contain *krishna tila yashti*, *Bala*, *Rasna*, *Padmakadi Gana*, *Eladi Gana* Analgesic Anti-inflammatory actions and provides stability to the bones. Bones are an important location of *Vata* and aggravation of *Vata* causes bone disorder like osteoporosis. It mainly indicated for *Bhagna, Vata Vyadhi*.

*Eranda taila* - *Kashaya* (Astringent), *Madhura* (Sweet), *Katu* (Pungent), *Ushna Virya* (hot in potency) pacifies the *Vata* and *Kapha*. It act as *Vatanulomaka* and, *Mridu Virechaka*.

### Panchakarma therapies

*snigdha coorna pinda swedana* - *SCPS with kolakulathadi choorna* was done. The main ingredient of *kolkulathadi choorna* is *Kola*, *Kulatha*, *Surdaru*, *Rasna Kustha*, *Vacha* etc maximam drugs *katu Rasa*, *laghu ruksha ushna virya*. It does *Doshavilayana* and *Srotoshodhana* which helps in relieving *Margavarana* of *Vata*. It will reach to *Sukshma Srotas* and thus help in pacifying *Vata Dosha*.

*Matra Basti* - *Matra Basti* a type *Snehana* by virtue of its *Ushna Guna*. *Vikalpa of Anuvasana basti*. It reaches up-to *Pakwashaya* which is the main site of *Vata dosha*. *Matra basti* promotes strength, and given in all season without any stricted diet regimen. It promote easy elimination of *Mala* and *Mutra*. According to *Acharya Charaka Matra Basti* performs the function of *Brimhana* and overcomes *dhatukshaya* and reduces *Vata Prakopa*. *Sahacharadi taila* is selected for *Basti karma*. most of the drug are *Katu Rasa* and *Ushna Virya* which pacify the *Vata and Kapha*, and reduce the pain and swelling.

*Kati Basti* - *Kati Basti* is a modified form of *Snehana* (oleation), *swedana* (sudation) therapy done together. By its local action it increases blood circulation and relieves pain. which has nutritive and stabilizing effect. The main Content of *Dhanwantaram Taila* is *balamoola*, *dashmoola*, *ksheera* which have *Vata Shamak*, *Balya*, *Brumahana Properties*. In *murivenna* main ingredient is *Karanja patra* (*Pongamia pinnata*), *Sigru* (*Moringa oleifera*), *Kanya* (*Aloe vera*). *Moringa* leaf extract possess osteo-protective activity, anti-inflammatory property and reduced pain and swelling.

### CONCLUSION

In *Katishoola* (Low backache) there is vitiation of *vata* that result in pain (*shoola*). Here ayurvedic treatment principle of treating *vata* like *Snehana Swedana Basti and Mridu Shodhana* are mainly applicable along with oral *vata* pacifying drug. Hence, in the present case, having a severe backache due to *VCF* is being treated with *Matra basti* with *Sahacharadi Taila*, *Kati Basti* with *Dhanwantara Taila* and *Murivenna* and *Snigdha Choorna Pinda Swedana* with *Kolkulathadi Choorna* and *Dhanwantar taila* along with oral medicine like *Dashmoola Kwatha*, *Ashwagandha*, *Gandha Taila*, *Lakshadi Guggul* provided significant relief in pain and range of movement which measured by *VAS* scale, *Oswestry low- back pain index*, *SLR test*, also improved the quality of life. thus the present case study provides a ray of hope and a lead to carry further research with larger sample size of patients suffering with a low back pain due to *VCF*.

## Conflict of Interest

None declared.

## Financial support

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