

Case study

PAIN MANAGEMENT BY AYURVEDA IN SPONDYLOSIS– A CASE STUDY AND SLECTIVE REVIEW OF LITERATURE

ABSTRACT

ABSTRACT:

Introduction: In Ayurveda, Snehanana is a very important method of treatment. As per Ayurveda, fatty substances are having properties opposite to that of Vata Dosha which is the root of many diseases. Therefore, Sneha (fatty substances) have important position in Ayurvedic treatment. Fatty substances are of 4 types of Ghrita (Ghee), Taila (oil), Vasa (muscle fat) and Majja (bone marrow fat).

Among these types, the literature is available pertaining to Ghrita (ghee), Taila (oil), and Majja (bone marrow fat) only, but Vasa (muscle fat) is not currently practiced. We got a case study, in which cod liver oil capsules were used as a representative of Vasa Sneha.

A male of 35 suffering from lumbar spondylosis approached for moderate to severe low back pain. We successfully used cod liver oil capsules as representative of Vasa Sneha in this case.

Study design: A single case study and selective review of literature

Place and Duration of Study: Panchakarma OPD, Yashwant Ayurvedic medical college, PGTRC, Kodoli, 416114, Dist. – Kolhapur, Maharashtra, India

Presentation of case: this is a single case study in which a male of 35 years was suffering from chronic low back pain (CLBP) due to lumbar spondylosis. The patient had chronic low back pain which was aggravated for 3 months. He consulted Orthopedic surgeon but had only temporary relief by his medication. So, he visited our hospital.

In our Panchakarma unit, initially he was given Ayurvedic medicine and local massage with medicated oil followed by hot fomentation. He got temporary relief for 3-4 days.

Thereafter, we prescribed him Ayurvedic medicines and cod liver oil capsules orally. The patient was followed for 16 months.

Results: outcome measure was assessed by Oswestry low back pain disability questionnaire. The low back pain score was measured in different positions. The before treatment value was 36 (median \bar{x} = 3.5) and score was 72, and after treatment value was 2 (median \bar{x} = 0) and the score was 4.

Conclusion: It is concluded that cod liver oil can be successfully used as a representative of vasa Sneha, and it is very effective in relieving chronic low back pain in lumbar spondylosis along with other ayurvedic preparations

Keywords: Vasa Snehanana, cod liver oil, fatty substances in Ayurveda, chronic low back pain

1. INTRODUCTION

Snehana is the administration of fatty substances into human body through various routes like oral route, anorectal route, smearing of fats over skin etc. It forms an important part of Ayurvedic treatment. It is not only useful for treating the diseases, but also plays a significant role in maintaining the health among healthy individuals. The Sneha Drugs are divided into 4 types basically, Ghee, oil, Vasa (muscle fat) and Majja (bone marrow fat). Each type has specific qualities and indications for example in the patients having frequent constipation or hard stools, oil is preferred among the 4 types of fatty substances. It is essential to select fatty substance in particular condition to relieve the symptom perfectly.[1]

However, in present time, only ghee and oil are in practice and Vasa (muscle fat) and Majja (bone marrow) are not in practice.

In a case study, by (late) Dr T.M. Gogate, cod liver oil capsules were used as a representative of Vasa Sneha in a patient suffering from earache. The patient had good relief. In this anecdote, cod liver oil capsules were used as representative of Vasa Sneha Pana. [2]

In present case study also, cod liver oil capsules were used as a representative of Vasa Sneha along with other Ayurveda medication.

Analysis of the low back pain was done using Oswestry disability index for low back pain prior initiating the therapy and after the completion of the therapy. We found that there was significant reduction in the pain and associated symptoms in absence of modern medicines. The patient was able to resume his daily routine without any fear and pain.

2. SELECTIVE REVIEW OF LITERATURE

In Ayurveda, fatty substances are described in detail. The sources of fats such as plants like sesame, mustard etc. and animal such as cow milk, buffalo milk etc. are also described. The method of extraction of fats is also described for example, preparation of ghee from milk. Since these fatty substances play a key role in the treatment of the diseases as well as to maintain the health, Ayurveda gives special position to the fats or fatty substances.

Snehana is the method of application of fatty substances to the human body. The method of application may be internal or external.

Ayurvedic treatment cannot be completed without application of fatty substances.

Sneha or fatty substances are originated from plants or animals i.e., Sthavar yoni or Jangam yoni. The fatty substances are divided into 4 types of viz. ghee (Ghrita), oils (Taila), Vasa (muscle fat) and Majja (bone marrow).

In the Ayurvedic texts like Charaka Samhita, Sushruta Samhita and Ashtang Sangraha, qualities and indications of each type of fatty substance has been mentioned in detail. For the better and quick results in the treatment, the suitable fatty substance among the 4 types must be applied, for example ghee is suitable for the persons with Vata – Pitta dominance and the diseases due to Vata and Pitta. Oil is mentioned as suitable for stoutness. It is applicable in sinus and constipation (hard stool), [3,4,5]

However, in the present era, only ghee and oils are in practice and there are also some studies to establish the use Majja (bone marrow) but there is not a single publication regarding the Vasa (muscle fat) among these 4 types of fatty substances. Vasa (muscle fat) has been mentioned in the treatment of various pains

like pain due to various injuries, injuries to bone, pain in the joints, abdominal pain etc. but, since the Vasa Sneha has been not in use in the current practices, this description has been remained in the texts only. (fig.1)

In this connection, we got a case study by (Late) Dr.T.M. Goagate, a veteran Panchakarma physician. In this case study he used cod liver oil capsules orally in the patient having earache. In that case study, excellent relief in earache was reported by the author.

By considering the indications of Vasa Snehapana, chronic low back pain (CLBP) is the condition in which, there is continuous pain. As low back is the seat of Vata as per Ayurveda. CLBP is considered as Vata dominant disorder. Fatty substances are the mainstay in the treatment of any Vatavyadhi. So, Cod liver oil capsules were used as Vasa Sneha in this case study.

Cod liver oil has been used for the years in modern medical science as a rich source of Vitamin-D and it plays very good role in the treatment of rickets, beriberi. It has been used since ancient times in Europe. Hippocrates also used cod liver oil. Edward Mellanby, an English physician conducted a study in 1919 to explore the role of diet in the etiology and treatment of rickets. [6] In 1922, therapeutic value of cod liver oil and young sunlight against rickets was confirmed. [7]

Fish oil might encourage brain development and gene expression to brain maintenance during aging through nutrigenomic mechanism.[8]

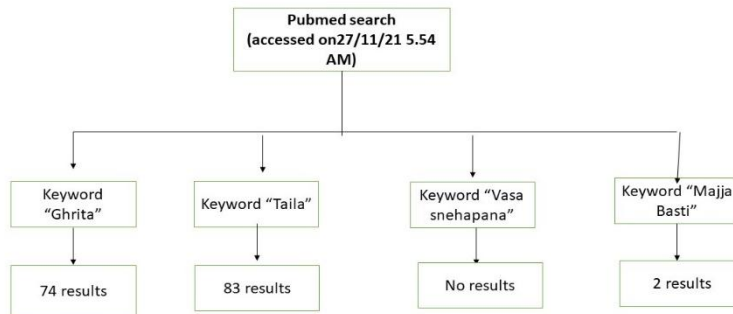


Figure 1 review of literature

2.1 CASE STUDY

A male of 35 years visited OPD of Panchakarma with his relative complaining chronic low back pain (CLBP). A desperate man having poor economic background and working as laborer in Peth Vadgeon a town near Kolhapur, Maharashtra state. He was having episodes of moderate to severe low back pain in the last 3 months. The pain used to be so severe that, he was not able to continue the work. He returned from the work due to pain. So, he rushed to an orthopedic surgeon and had investigations and treatment, He was informed that he had been suffering from lumbar spondylosis. He started consuming medications as prescribed, but he did not have relief. The pain was related to the overactivity. The surgeon advised him to

consume the analgesics, nutrients and calcium supplements, that he prescribed and take rest which was not feasible for him, as the only working person in the family. As the patient had to join his work, he looked for an alternative treatment. He arrived at our hospital as his uncle brought him. He was examined in detail at our hospital. He was non-diabetic, non- hypertensive and was not having any other disorder. He was a thin person (body weight 52 kg, height – 5 feet, 3 inches). The nature of pain was moderate to severe and persisting for 4 – 6 hours. The pain was relieving after ingestion of pain killers temporarily.

He was having history of trauma, but it appeared not so severe, and it was too old. The record of the trauma was missing, the oral history appeared that it was not severe and not directly over the low back. (Fig.2)

The patient was exhibiting signs and symptoms related to Vata Dosha, so, as per Ayurvedic principles, fatty substances were applicable in this condition. Therefore, the treatment for Vata alleviation was given (Table No.1)

He was also given local Snehana – Swedana for 3-4 days. He got relief by Snehana -Swedana. Therefore, it was concluded that Niram Vata is present. So, cod liver oil was started as representative of Vasa Sneha.

Timeline symptoms

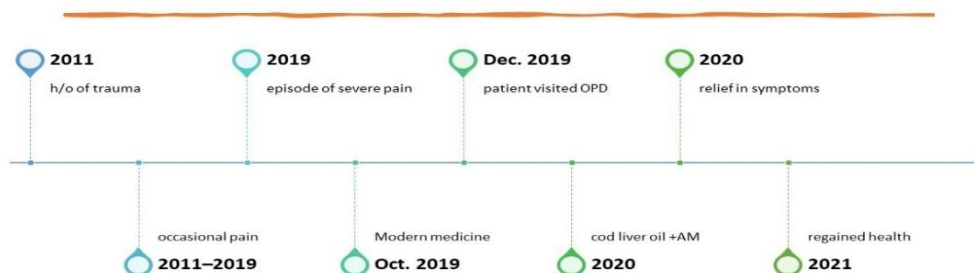


Figure 2 timeline of symptoms

Once cod liver oil was prescribed, the patient had marked relief in the symptoms. After few months he began to visit the workplace. He also started to work in next week and he has good confidence about the treatment. He used to have low back pain sometimes, but as soon as he started cod liver oil capsules, the pain relief was there. He was asked to stop all the medicine and continue cod liver oil only. So, he was on cod liver oil for 7 – 8 months.

During September 2020, he visited the orthopedic surgeon once again but not because of pain but for another patient's consultation. He was advised to take x-ray to check the prognosis. The x-ray was showing spondylosis at the level of L₄ – L₅. (Fig.3) He was taking the cod liver oil capsules continuously.

In year 2021, he stopped cod liver oil as well and now he is totally free from low back pain. He has been working with full efficiency. He has been advised to take sesame oil massage regularly before bath and avoid pungent taste food articles, as pungent taste is responsible for the disease chronic low back pain, as per Ayurvedic literature.

The follow up was taken in the month of March 2021, at that time patient was free of chronic low back pain without any kind of medicine. He was performing all his daily activities including physical activities, related to agriculture without any trouble. We

followed up the patient for further 6 months. But there was no recurrence in the symptoms. However, it should be noted that, the patient feels the low back pain occasionally, but it is very mild, and it often gets relieved by local massage with sesame oil/Nirgudi oil and sudation with sand at home. The patient also consumes cod liver oil capsules as soon as the episode of low back pain appears. He mentioned 2 -3 times the episodes of low back pain in these 6 months.

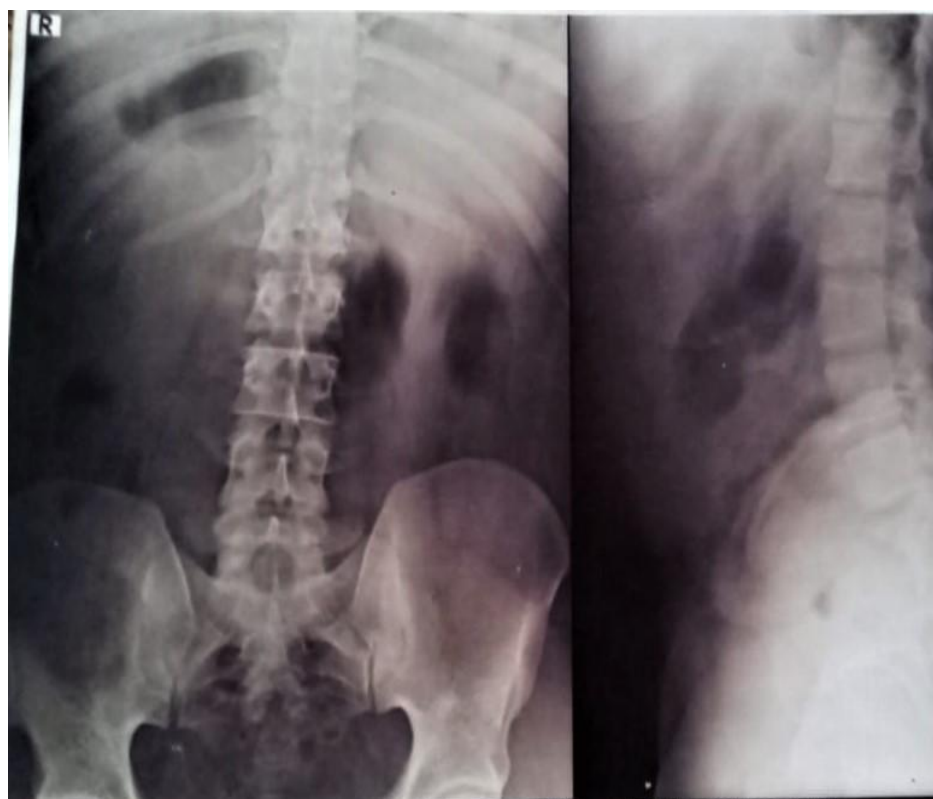


Figure 3 x-ray LS

Table 1 treatment 1

SR	Medicines	Dose	Anupana
1.	Sinhanada Guggul [9]	250 mg two times AD	Hot water
2.	Ekangveer Rasa [10]	125 mg two times AD	Honey
3.	Mahavatvidhvanas Ras [11]	125 mg two times AD	Honey
4.	sesame oil massage & hot fomentation [12]	-----	-----

Table 2 treatment 2

SR	Medicines	Dose	Anupana
----	-----------	------	---------

1.	Sinhanada Guggul	250 mg two times AD	Hot water
2.	Ekangveer Rasa	125 mg two times AD	Honey
3.	Mahavatvidhvanas Ras	125 mg two times AD	Honey
4.	Cod liver oil capsule	2 cap 2 times AD	Hot water

3. RESULTS AND DISCUSSION

3.1 Assessment of chronic low back pain

The assessment of the low back pain was done with the help of Oswestry low back pain disability index.[13]

It was done before the initiation of the therapy and the follow up was taken 30/11/2021. The score was compared. The findings of the score have been summarized in the table below

Table 3 Oswestry low back pain index score

SR		BT	AT
1.	Pain intensity	4	0
2.	Personal care – washing/dressing	3	0
3.	Lifting	6	1
4.	Walking	3	0
5.	Sitting	3	0
6.	Standing	4	1
7.	Sleeping	4	0
8.	Sex life	2	0
9.	Social life	4	0
10.	Travelling	3	0
	Total	36	2
	Score	72	4

3.2 Statistical analysis

Since the obtained data is a scale, it is an ordinal type data from one group. The before treatment value is 36 (median $\hat{x} = 3.5$) and score is 72 and after treatment value is 2 (median $\hat{x} = 0$) and the score is 4.

Thus, there is statistically significant difference in the low back pain before and after the intervention.

4. CONCLUSION

From our study, it is concluded that cod liver oil can be successfully used as substitute to vasa Sneha, and it is very effective in relieving chronic low back pain in

lumbar spondylosis along with other ayurvedic preparations. This intervention can be tried for pilot study on larger sample.

CONSENT (WHEREVER APPLICABLE)

Written consent of patient has been obtained for publication of the case report, x - ray and other findings and investigations.

ETHICAL APPROVAL (WHEREVER APPLICABLE)

Since the patient had moderate to severe pain, he was advised to consume the pain killers as per severity of the pain

NOTE:

THE STUDY HIGHLIGHTS THE EFFICACY OF "AYURVEDIC TREATMENT" WHICH IS AN ANCIENT TRADITION, USED IN SOME PARTS OF INDIA. THIS ANCIENT CONCEPT SHOULD BE CAREFULLY EVALUATED IN THE LIGHT OF MODERN MEDICAL SCIENCE AND CAN BE UTILIZED PARTIALLY IF FOUND SUITABLE.

REFERENCES

1. Charaka samhita, sutrasthan 13/11, y.g. joshi, editor. 4th ed. Vaidyamitra prakashana, pune. 2009;273.
2. Dr.t.m. Gogate, panchakarma ki satyakathaein t.m gogate pratisthan, nashik publication.
3. Charaka samhita, sutrasthan 13/46, y.g. joshi, editor. 4th ed. Vaidyamitra prakashana, pune. 2009;273.
4. Sushruta samhita, chikistastaha 31/16. Ambika datta shastri, editor. Chowkhamba sanskrit sansthan, varanasi. 2008;64.
5. Vagbhat, ashtang hridya, sutrasthan, chapter 16, /9.Srikantha Murthy, editor. Chaukhambha krishnadas academy,2006
6. Philippe hernigou & jean Charles auregan & arnaud dubory, vitamin d: part ii; cod liver oil, ultraviolet radiation, and eradication of rickets, international orthopedics (2019) 43:735–749 available on <https://link.springer.com/content/pdf/10.1007/s00264-019-04288-z.pdf>
7. Caramia g. Omega-3: Dall' olio di fegato di merluzzo alla nutrigenomica [omega-3: from cod-liver oil to nutrigenomics]. Minerva pediatric. 2008 aug;60(4):443-55. Italian. Pmid: 18511896. Available on <https://pubmed.ncbi.nlm.nih.gov/18511896/>
8. Caramia g. Omega-3: dall'olio di fegato di merluzzo alla nutrigenomica [omega-3: from cod-liver oil to nutrigenomics]. Minerva pediater. 2008 aug;60(4):443-55. Italian. Pmid: 18511896. Available on <https://pubmed.ncbi.nlm.nih.gov/18511896/>

9. Pandey sa, joshi np, pandya dm. Clinical efficacy of shiva guggulu and simhanada guggulu in amavata (rheumatoid arthritis). Ayu. 2012;33(2):247-254. Doi:10.4103/0974-8520.105246 available on <https://www.ncbi.nlm.nih.gov/pmc/articles/pmc3611626/#ref8>
10. vd. Swati r. Lanjewar &vd. Meera a. Aurangabadkar: analytical study on ekangveer ras in the management of pakshaghata w.s.r. to cve (cerebrovascular episode). International ayurvedic medical journal{online} 2016 {cited 2016 july} available from http://www.iamj.in/posts/2016/images/upload/3098_3105.pdf
11. Anonyms Rasatantra sara & Sidhaprayog sangraha, Kharaleeya Prakarana, Krishna gopal Ayurved Bhavana, Kaleda available on <https://www.exoticindiaart.com/book/details/rasa-tantra-sara-and-siddha-prayog-sangraha-encyclopedia-of-ayurvedic-formulations-set-of-2-volumes-nai852/>
12. Charaka samhita, sutrasthan 14/02, y.g. Joshi, editor. 4th ed. Vaidya Mitra prakashana, pune. 2009;273.
13. Fairbank JCT & pynsent, pb (2000) the oswestry disability index. Spine, 25(22):2940-2953. available on https://www.rehab.msu.edu/files/docs/Oswestry_Low_Back_Disability.pdf