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A CRITICAL STUDY OF *KATIGATA VATA* W.S.R. TO DISC PROLAPSE

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Abstract: Intra vertebral disc prolapse is a very common problem and has a ubiquitous distribution. Among the galaxy of causative factors, both spinal and extra spinal seems to be the cause of lumbar disk disease leading to the symptom of low backache. Bad posture plays a very significant role in the genesis of this disease. So much is the contribution of bad posture towards this problem that one can categorically conclude that low backache is all about disk degeneration predisposed by poor posture. Eighty percent of the population is affected by this symptom at some time in life in which 78% is male & 89% is female.[1] Impairments of back and spine are ranked as the most frequent cause of limitation of activity in people younger than 45 years. The cost to the society and the patient for treatment, compensation, etc. is very high. Symptoms of the condition is related with *kati Pradesh* which is main seat of *vata dosha*. In Ayurveda, *Basti* therapy has been described for the treatment of *vata dosha* and if problem is at *kati Pradesh, basti* therapy becomes prime line of treatment. Disc prolapse is not a single time phenomenon and if look into the pathophysiology of disc prolapse, first stage is Nucleus degeneration due to lack of nutrition where *Sneha basti* can be given. The Second & third stage comprises of disc protrusion or extrusion cause by nucleus displacement & in this condition, *Brihmana Basti* such as *Ksheera* & *Mamsa rasa basti* can be prescribed. The fourth stage is of fibrosis where calcification occurs & *Lekhan* type of *basti* can be prescribed.

Keywords: *Katigata Vata*, Disc prolapse, IVDP, Back pain

1. Introduction

The symptoms of disease *Katigata vata* mentioned in ayurvedic classics is closer to the disease Disc Prolapse in modern science. The term 'prolapsed disc' means the protrusion or extrusion of the nucleus pulposus through a rent in the annulus fibrosus. It is not a one-time phenomenon; rather it is a sequence of changes in the disc, which ultimately lead to it prolapse.[2]

As par WHO, Low back pain is the leading cause of disability globally. In 2020, approximately 1 in 13 people, equating to 619 million people, experienced LBP, a 60% increase from 1990. Cases of LBP are expected to rise to an estimated 843 million by 2050, with the greatest growth anticipated in Africa and Asia, where populations are getting larger and people are living longer.[3] LBP is a common condition experienced by most people at some point in their life. In 2020, LBP accounted for 8.1% of all-cause years lived with disability globally. Yet clinical management guidelines have been developed predominately in high-income countries. For people who experience persisting pain, their ability to participate in family, social, and work activities is often reduced, which can negatively affect their mental health and bring substantial costs to families, communities, and health systems.[4]

Study finds 87.5 million low back pain cases in India and This number is likely to be an undercount due to less availability of data on musculoskeletal conditions.[5] The pooled point, annual, and lifetime prevalence of LBP in India was 48% (95% CI 40–56%); 51% (95% CI 45–58%), and 66% (95% CI 56–75%), respectively. The pooled prevalence rates were highest among females, the rural population, and among elementary workers. The most common cause of low backache seems to be the lumbar disk disease & the overall financial stress due to chronic pain can severely impact household budgets and socioeconomic stability. [6] (Shetty et. al.)

In modern system of medicine, it is being treated by Analgesic, Anti-inflammatory agents, steroids which is having side effect on use for long period. Further, progressive worsening of symptoms may affect in lumbar conduit stenosis which needs surgical intervention with due threat. This outcome generates an opportunity & scope of Ayurveda to manage it with conservative treatment, therapies or intervention which are cost effective, day-care procedure, easy to perform along with its low economic expense and having less side effects.

2. Aims & Objective

1. To compile the references of *katigata vata* mentioned in various classics.
2. To analyze the *Nidan Panchaka* of *Katigata vata* with reasoning.

3. Etiological Factors

Few *Nidana* mentioned for *Vata Vyadhi* by Ayurvedic Classics can be easily established as the etiological factors to *Katigata Vata* through modern perspective such as *Prajajagaran* (Awakening in night) is a well-known cause of IVDP as Eighty percent of the nutrition process takes place in the first one hour of night's rest.[7] *Atibhara Vahan* (Heavy Weight lifting)[8], *Dukhsayasnat* (Sleeping over uncomfortable beds) being a cause as the nutrition of the disk is best in side lying position, *Dukhasnat* (Sitting over uncomfortable sits)[9], *Chinta & Soka* (anxiety & depression)[10] and *Madhyapana* (Cigarette & Tobacco Consumption)[11], *Ativichesthita* (abrupt unbalanced movement)[12], & *Marmaghata* (Trauma)[13].

4. Symptoms of *Katigata Vata*

Ayurvedic classics don't give detailed information about *Kati Vata* but *Vasava Rajiyam* (12 Cent. AD) mentioned *Kati Vata* as a separate disease being it's symptom like *Kati Bhanga* (Pain in Back), *Kati Vikara* & Mental Irritation.[14] Anjana Nidana has mentioned *Kati Shula* as a symptom of *Vata Prakopa* (provocation). Further *Kati Vata* as a symptom is noted in Gridhrasi.[15] In Yoga Ratnakar, various terms like *Kati Shula, Kati Vata, Kati Samira, Kati Prishta Amaya,* and *Kati Pida* have been used in the text to indicate backache.

5. Samprapti of *Katigata Vata*

IVDP is not a one-time phenomenon, rather it is a sequence of changes in the disc, which ultimately lead to its prolapse.

a) Nucleus degeneration[16]: Broadly, Vata increase either due to Dhatukshaya or Margavarodh and once the Vata gets lodge in lumbar region, any of these two phenomena will hamper the nutritious supply to the disc. So, ultimately degenerative changes occur in the disc before displacement of the nuclear material. These changes are: softening of the nucleus by Laghu & *Sukshma guna* of *Vata* and its fragmentation by *Ruksh guna* and again *vata* will facilitate the weakening and disintegration of the posterior part of the annulus.

b) Nucleus displacement[17]: The nucleus is under positive pressure at all times. When the annulus becomes weak, either because a small area of its entire thickness has disintegrated spontaneously or because of injury, the nucleus tends to bulge through the defect. This is called disc protrusion which is facilitated by *Chala guna* of *Vata*. This tendency is greatly increased if the nucleus is degenerated and fragmented by the act of ruksha guna of Vata. Finally, the nucleus comes out of the annulus and lies under the posterior longitudinal ligament;

though it has not lost contact with the parent disc. This is called disc extrusion. Once extruded, the disc does not go back. The posterior longitudinal ligament is not strong enough to prevent the nucleus from protruding further. The extruded disc may lose its contact with the parent disc, when it is called sequestrated disc. The sequestrated disc may come to lie behind the posterior longitudinal ligament or may become free fragment in the canal.

c) Stage of fibrosis[18]: This is the stage of repair. This begins alongside of degeneration. The residual nucleus pulposus becomes fibrosed. The extruded nucleus pulposus becomes flattened, fibrosed and finally undergoes calcification due to *ruksha guna* of *Vata*.

6. Treatment Principle

The management of diseases, whether those with identifiable etiologies or those of an obscure origin, is fundamentally grounded in the principles of *Nidana Parivarjan* (elimination of causative factors) and break-down of *Samprapti* (etiopathogenesis). In cases where the etiology remains unknown, treatment is guided by *Lakshana* (signs and symptoms). For conditions such as Intervertebral Disc Prolapse (IVDP), the therapeutic approach is often framed under the concept of *Katigata Vata* within the broader category of *Vata Vyadhi* (vata disorders). Accordingly, treatment encompasses both external and internal oleation therapies (*Bahya Abhyantara Sneha*), such as *Kati Basti* and other various forms of *Basti* (therapeutic enemas) such as *Sneha Basti*, *Ksheera Basti*, *Yapana Basti*, and *Lekhan Basti*. These treatments are judiciously selected according to the disease's progression, as each stage of disc prolapse necessitates distinct interventions. As per Ayurvedic principles, *Basti* is considered as prime treatment modality *in Vata Vyadhi* & *Ardh-Chikitsa* in treatment[19]. thus, specific therapies may prescribe in alignment with the severity of the condition. In the initial stage of a simple or just disc bulge, *Sneha Basti* can be indicated. In cases of disc protrusion or extrusion (second and third stages), *Brihmana Basti*, employing substances such as *Ksheera* (milk), *Mamsa Rasa* (meat essence), or *Yapana Basti*, can be prescribed for their rejuvenating properties. The fourth and final stage, characterized by sequestration or fibrosis of the disc, calls for the use of *Lekhan Basti* to address the fibrous tissue and associated deformity.

7. Discussion

This study highlights the pivotal role of various *Basti* therapies, each with its unique therapeutic qualities, which can be meticulously adapted to the patient's needs and the evolving pathology. The first stage of disc prolapse is often the result of degenerative changes within the disc, an avascular structure dependent on nutrient diffusion from the vertebral body via the endplates[20]. These degenerative alterations are typically attributed to *Dhatukshaya* (tissue depletion) and *Rukshata* (dryness), with *Ruksha Guna* (dry quality) playing a dominant role. At this juncture, the therapeutic choice leans toward *Snehana* (oleation), which serves to counteract the dryness and promote nourishment. In instances where degeneration is precipitated by *Margaavarodha* (obstruction of the channels), a combined approach of *Niruha Basti* followed by *Sneha Basti* is recommended. The *Niruha Basti*, prepared from *Shodhan* group of drugs, is instrumental in clearing the obstructed channels, while the subsequent *Sneha Basti* promotes tissue regeneration and vitality through its growth-inducing properties[21].

The second and third stages of disc prolapse, marked by the displacement of the nucleus pulposus, demand a focused intervention aimed at halting further degeneration and preventing the progressive weakening of muscles and ligaments. These stages necessitate additional support, and in accordance with the principle of *sarvada sarva bhavah naam Samanyam Vriddhi Karanam, Brihmana Basti*[22]—especially those composed of *Mamsa Rasa* or *Ksheera*[23]—is deemed highly effective. These therapies serve not only to nourish the affected tissues but also to restore their strength by counteracting the imbalance induced by the *Chal Guna* of *Vata which seems more predominant at the stage*.

The fourth stage, marked by fibrosis and encapsulation of the nucleus pulposus, is associated with severe pain and deformity. Here, the fibrosed tissue, which serves as the root cause of the pathology, must be carefully eliminated. This can be achieved through the use of *Lekhan Basti*[24], a therapeutic modality designed to scrape and expel the morbid *dosha* & *dushyas*, thereby facilitating its natural expulsion in alignment with Ayurvedic principles of pacification.

8. Conclusion

The classical texts of Ayurveda offer a diverse array of *Basti* therapies, each with distinct pharmacological properties and mechanisms of action, tailored to address the unique pathophysiological processes of different disease. Given the multifaceted nature of the condition, it is essential to identify the precise stage of the disease to select the most appropriate therapeutic intervention. This article underscores the significance of stage-specific treatment and the importance of individualized care in managing disc prolapse. However, to establish the clinical efficacy of these Ayurvedic interventions, further empirical studies and randomized clinical trials are necessary to validate their therapeutic outcomes and strengthen the evidence base for their use in modern clinical practice.

9. References:

1. Text book of orthopedics 5th edition JAYPEE publication by John Ebnezar & Rakesh John. Page no.447
2. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 252.
3. Low back pain (who.int)
4. Global, regional, and national burden of low back pain, 1990–2020, its attributable risk factors, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021 - The Lancet Rheumatology
5. https://indianexpress.com/article/cities/pune/study-finds-87-5-million-low-back-pain-cases-in-india-doctors-say-surgery-not-only-solution-8684733/
6. Prevalence of low back pain in India: A systematic review and meta-analysis - IOS Press
7. Text book of orthopedics 5th edition JAYPEE publication by John Ebnezar & Rakesh John. Page no.449
8. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 254.
9. Text book of orthopedics 5th edition JAYPEE publication by John Ebnezar & Rakesh John. Page no.448
10. Text book of orthopedics 5th edition JAYPEE publication by John Ebnezar & Rakesh John. Page no.450.
11. Text book of orthopedics 5th edition JAYPEE publication by John Ebnezar & Rakesh John. Page no.450.
12. Text book of orthopedics 5th edition JAYPEE publication by John Ebnezar & Rakesh John. Page no.448
13. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 254.
14. Vasava Rajiyam.Ch.19, Nesari Manoj et al, The study on the role of Amritabhallataka & Raja Yapana Basti in the management of Kati Shula w. r. to Spinal degenerative disease, P.G. thesis, I.P.G.T. & R.A., Jamnagar, Year February 1991, pp.10.
15. Anonymous, Anjana Agnivesha(Agniveshacharya, Anjana Nidana, translated in to Sinhalese by Vaidya D. M. Jayasinghe, published by Department of Ayurveda, sri Lanka, 2n d Edition, 1994, 4/108, pp. 29.
16. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 252.
17. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 253.
18. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 253.
19. Charak Samhita Siddhi sthana (1/38-39) by R. K. Sharma & Bhagwan Dash. Vol-6, Page No. 163.
20. Essential orthopedics 7th edition JAYPEE publication by Maheshwari & Mhaskar. Page no. 253.
21. Sushruta Samhita Chikitsa Sthana (35/19,20) by Prof. G. D. Singhal. Vol.-2, page no. 485.
22. Sushruta Samhita Chikitsa Sthana (38/83) by Prof. G. D. Singhal. Vol.-2, page no. 525.
23. Charak Samhita Siddhi sthana [12/18(5)] by R. K. Sharma & Bhagwan Dash. Vol-6, Page No. 418
24. Sushruta Samhita Chikitsa Sthana (38/82) by Prof. G. D. Singhal. Vol.-2, page no. 525.