WJPMR, 2026, 12(11), 246-254

Case Study

Impact Factor: 7.533

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

ISSN (O): 2455-3301

ISSN (P): 3051-2557

Coden USA: WJPMBB

EFFECT OF BASTI AND BRIMHANA THERAPIES IN CAUDA EQUINA SYNDROME SECONDARY TO LYMPHOMA: A CASE REPORT

Dr. Shravankumar C. Madli*[1], Dr. Vijaymahantesh Hugar[2], Dr. Varsha Kulkarni[3], Dr. Rajesh S.[4]

[1]3rd Yr Post Graduate Scholar, Department of PG Studies in Panchakarma, GAMC, Mysuru.
[2]Associate Professor Department of PG Studies in Panchakarma, GAMC, Mysuru.
[3]Professor and Head, Department of PG Studies in Panchakarma, GAMC, Mysuru.
[4]Professor Department of PG Studies in Panchakarma, GAMC, Mysuru.

***Corresponding Author: Dr. Shravankumar C. Madli**

3rd Yr Post Graduate Scholar, Department of PG Studies in Panchakarma, GAMC, Mysuru.

DOI: https://doi.org/10.5281/zenodo.23828244

How to cite this Article: Dr. Shravankumar C. Madli*[1], Dr. Vijaymahantesh Hugar[2], Dr. Varsha kulkarni[3], Dr. Rajesh S.[4] (2026). Effect Of Basti And Brimhana Therapies In Cauda Equina Syndrome Secondary To Lymphoma: A Case Report. World Journal of Pharmaceutical and Medical Research, 12(11), 246–254.

This work is licensed under Creative Commons Attribution 4.0 International license.

Article Received on 19/09/2026 **Article Revised on 09/10/2026** **Article Published on 01/11/2026**

ABSTRACT

Cauda equina syndrome (CES) is a rare yet severe neurological disorder caused by compression of the lumbosacral nerve roots, which can lead to irreversible motor, sensory, and autonomic dysfunction if not managed promptly. Intervertebral disc prolapse is the most common etiological factor; however, other causes such as spinal tumors, trauma, infections, epidural hematoma, and rare malignancies including germinal center B-cell type lymphomas have also been reported. Conventional management primarily involves emergency surgical decompression, which is often expensive and associated with variable outcomes and postoperative complications. From an Ayurvedic perspective, the clinical features of Cauda Equina Syndrome can be correlated with ***Pangu Vata***, ***Asthimajjagata Vata***, and ***Katigraha***, conditions characterized by *Vata* vitiation affecting the *Asthi* and *Majja dhatus* and resulting in motor weakness, sensory impairment, pain, and dysfunction of bladder and bowel control. Hence, Panchakarma therapies along with *Shamana Chikitsa* are indicated based on the principles of *Vatavyadhi* and Lakshanika Chikitsa. **Case History:** A 24-year-old male patient, clinically diagnosed with Cauda Equina Syndrome, presented with bilateral lower limb weakness and numbness, difficulty and afraid of falling while walking without support, low back pain, urinary incontinence, and occasional bowel incontinence. **Methodology:** Treatment was adopted based on the principles of Vatavyadhi Chikitsa and symptom-oriented management. The intervention protocol included Abhyanga, Kukkutanda Sweda, Shashtikashali Pinda Sweda, Matra Basti, and supportive Shamana Chikitsa. **Results And Conclusion:** Assessment of subjective and objective parameters before and after treatment revealed significant improvement in motor strength, sensory perception, pain reduction, ambulation without support, and significant improved performance in daily activities. No adverse effects were observed during the treatment period. The findings suggest that Ayurvedic interventions, particularly Kukkutanda Sweda, Shashtikashali Pinda Sweda, and Vasti therapy, may provide a safe, effective, and economical conservative therapeutic approach for improving functional outcomes in patients with Cauda Equina Syndrome.

KEYWORDS: Cauda Equina Syndrome, Katigraha, Asthimajjagatavata, Vasti.

INTRODUCTION

The spinal cord terminates at the level of the intervertebral disc between the first and second lumbar vertebrae, forming the conus medullaris. Below this lies the filum terminale and a bundle of nerve roots collectively known as the cauda equine.[1] Compression of these nerve roots leads to Cauda Equina Syndrome (CES), a serious neurological condition characterized by a constellation of symptoms including low back pain, unilateral or bilateral leg pain, paresthesia, motor weakness, saddle anesthesia, and bladder, bowel, or sexual dysfunction. If not diagnosed and treated promptly, CES can result in permanent neurological disability and significant morbidity.

Cauda equina syndrome commonly occurs following massive lumbar intervertebral disc herniation, prolapse, or sequestration, most frequently at the L4–L5 or L5–S1 level. Other less common etiologies include spinal epidural hematoma, abscess, trauma, postoperative

complications, tumors (both primary and metastatic[2]), spinal stenosis, chemonucleolysis, spinal anesthesia, and vertebral fractures with retropulsion of fragments causing canal compromise. Based on clinical presentation, Cauda Equina Syndrome has been classified by Tendon[3] and Sankaran into three types.
Type I with sudden onset without prior back symptoms,
Type II with acute bladder dysfunction associated with low back pain, and.
Type III with chronic backache and gradually progressive neurological deficits due to canal stenosis.

Clinically, CaudaEquina Syndrome presents with severe low back pain, bilateral or unilateral radicular pain, lower limb weakness, sensory disturbances, gait abnormalities, and autonomic dysfunction including urinary retention, incontinence, and erectile dysfunction. A hallmark feature is saddle anesthesia, characterized by sensory loss in the perineal, genital, and perianal regions. Epidemiologically, Cauda Equina Syndrome is a rare entity with an estimated prevalence of approximately 1 in 65,000 individuals and accounts for nearly 3% of lumbar disc herniation cases, affecting males and females equally.

In contemporary medical practice, early surgical decompression through procedures such as microdiscectomy or minimally invasive surgery remains the standard treatment to prevent neurological deterioration. However, surgical intervention is associated with high cost, variable prognosis, and potential complications, highlighting the need for alternative conservative approaches.

From an Ayurvedic perspective, accurate diagnosis based on doshic involvement and samprapti is fundamental for effective management. The clinical features of CES closely resemble Katigraha and Abhighātaja Pangu Vata. Katigraha is described as a Vataja Nanatmaja Vyadhi by Sharangadhara[4] and is characterized by shoola, stambha, and shosha localized to the lumbosacral region. Pangu Vata, described among the eighty Nanatmaja Vata Vyadhis, represents paralysis resulting from trauma-induced vitiation of Vata Dosha. Since Vata governs all motor and sensory functions, its derangement leads to severe functional disability. Panchakarma therapies, especially Basti Karma, are considered the mainstay of treatment for Vata disorders. Supportive procedures such as Abhyanga, Swedana, Rukshana, Snehana, Virechana, Brimhana, and Rasayana therapies further enhance neurological recovery and tissue nourishment.

The present case report highlights the successful management of Cauda Equina Syndrome correlated with Pangu Vata using Ayurvedic principles of Vatavyadhi Chikitsa, emphasizing the therapeutic potential of Panchakarma and conservative Ayurvedic interventions.

CASE PRESENTATION

CHIEF COMPLAINTS

The patient aged 24yrs male presented with complaints of loss of strength in both lower limbs since 5 years. Right lower limb is more affected than left. Associated complaints of occassionaly bowel and urine incontinence, Episodes of Lowback Pain, Numbness and burning sensation in both lower limbs.

HISTORY OF PRESENT ILLNESS

A 24-year-old male patient, with no known history of hypertension, diabetes mellitus, or thyroid dysfunction, was apparently asymptomatic five years ago. He gradually developed a pulling type of pain associated with numbness in both lower limbs, and he has consulted a physician for which patient took treatment from them. After 15 days, he had developed acute urinary retention and he was catheterized in private hospital following admission to that hospital. During this period, he was developed progressive weakness of both lower limbs. Subsequently, on neurologist referral, he was admitted to Narayana Health Hospital, Bengaluru, where he was diagnosed as Diffuse Large B-Cell Lymphoma, thereafter he was treated by oncologist and appropriate oncological treatment was initiated. He had 6 cycles of chemotherapy and 2 cycles of radiotherapy in the duration of about 12 to 18 months. After the treatment patients complaints where markedly reduced bilateral lower limb weakness continued and patient was advised rest. After 2 years, the patient continues to have persistent lower limb weakness with loss of strength, reduced bowel control, and difficulty in urination, with minimal improvement over time. On MRI report showing diffuse disc bulge with thecal sac indentation at L4-L5 and L5-S1 levels. Owing to these chronic neurological deficits, and MRI findings he has now been admitted to our hospital for further management and rehabilitation.

PAST MEDICAL HISTORY

A 24-year-old male patient was admitted to a private Hospital on 22/04/2022 with complaints of bilateral lower limb weakness**,** sacral numbness**,** tingling over the buttock region**,** and difficulty in urination and defecation. Routine investigations revealed urosepsis**.** CECT abdomen showed multiple abdominal lymphadenopathies, following which a biopsy was performed. MRI spine demonstrated severe thecal sac compression at L2–L4 levels with a pathological L3 vertebral fracture**.** Histopathological examination confirmed Diffuse Large B-Cell Lymphoma (Germinal Center type)**.** Neurological evaluation revealed bilateral hip abductor weakness, explaining the patient's gait abnormality and correlating with MRI findings. There was no history of Diabetes Mellitus, Hypertension, Coronary Artery Disease, or Cerebrovascular Accident**.**

POORVA VYADHI CHIKITSA VRITHANTHA
Had 6 cycles of chemotherapy and 2 sittings of radiotherapy

CHEMOTHERAPY DETAILS:

IT MTX	12.5mg stat	on 16.07.2022
Inj. Rituximab	100mg IV in 100ml NS over 1 hr	on 16.07.2022
Inj. Rituximab	500mg IV in 500ml NS over 6 hrs	on 16.07.20222
Inj. Cyclophosphamide	1150mg + MESNA 1150mg IV in 500ml NS over 2 hrs	on 17.07.2022
Inj. Doxorubicin	75mg IV in 100ml NS over 1 hr	on 17.07.2022
Inj. Vinblastine	9mg IV side push in running saline	on 17.07.2022
TAB. PREDNISOLONE	90mg . 1-0-0 for 3 days	

With adequate pre-medication and hydration

FAMILY HISTORY
History of consanguinity.ie father married his own sister daughter,

PERSONAL HISTORY
Bowel – Normal but can't able to withhold during loose motion.
Micturition – 6-7 times passes with slight difficulty.
Sleep – Sound
Appetite – Good
Diet - Mixed

GENERAL EXAMINATIONS
Built: Moderate
Height: 143cm
Weight: 51kg
Pallor: Absent
Icterus: Absent
Clubbing: Absent
Cyanosis: Absent
Lymphadenopathy: Absent
Edema: Absent

VITALS
Blood pressure: 130/80mmhg
Pulse Rate: 70/min
Heart rate: 72/min
Respiratory rate:18cycles/min

SYSTEMIC EXAMINATIONS
➢Respiratory system: NVBS heard, no added sounds.
➢Cardiovascular system: -S1, S2 heard, no abnormality detected
➢Gastrointestinal system: abdomen soft.
➢CNS: -HMF-Intact, patient is conscious and well oriented with time, place or person.
Speech: Normal
Memory: Intact

SENSORY SYSTEM
Touch: Intact
Temperature: Intact
one-point discrimination: Intact
Two-point discrimination: Intact
Gait: Waddling gait

Musculoskeletal Examinations

EXAMINATIONS	**OBSERVATIONS** **RIGHT**	**LEFT**
Muscle bulk	Mid thigh-42cm Lower thigh-32cm Upper calf-26cm Lower calf-24cm	Mid thigh-46cm Lower thigh-35cm Upper calf-27cm Lower calf-24.5cm
Muscle power	2/5	5/5
Muscle tone	Normal	Normal
Deep reflex (knee and ankle)	Diminished	Diminished
SLR	50*	-ve
FNST	Unable to elict	-ve
GAIT	Difficulty and fear to walk without support	
Range of movements	Restricted and unable to flex both lower limb	
Coin test	+ve	
O/E Lumbar spine-	Blackish scar mark in L2-L5 area No warmth/Tenderness	

Ashtasthana Pariksha

Nadi	Vatapitta
Mala	Passess bowel normaly but during loose bowel he has incontinence
Mutra	He has alpa mootravarodhata occassionaly
Jihwa	Aliptha
Drik	Prakritha

Sabdha	Prakrita
Sparsha	Prakrita
Akrithi	Madhyama

Dashavidha Pareeksha

Prakriti	Vatakapha
Vikriti	Vata prakopa kapha aavarana
Sara	Majjasara and asthisara ksheenata
Sathwa	Madhyama
Aharashakthi	Madhyama
Vyayamashakthi	Avara
Pramana	Avara
Vaya	Yuva 24yrs
Samhana	Madhyama
Sathmya	Madhyama

Samprapthi Ghatakas

Dosha	Vata,
Dushya	Rasa,mamasa ,asthi, majja
Agni	Dhatwagnijanya
Srotas	Rasavaha, mamasavaha, majjavaha, asthivaha
Srotodushti	Sanga, margavarodha
Udbhavasthana	Pakwashaya
Sancharasthana	Sarvasharira
Vyakthasthana	Kati,adhoshakhas
Adhishtana	Kati, adhoshakas
Rogamarga	Madhyama
Sadhyasadhyata	Krichrasadhyata

Probable Samprapthi

Kapha pradhana granthi (lyphoma)

⇩

Marga Aavarana of vata in katiprushta region

⇩

Persistent obstruction leads to vata prakopa

⇩

Asthi Majjagatha dhatu kshaya with apana vayu dysfunction

⇩

Kati and adhoshakha balakshaya and karmahaani

Pathogenisis

DLBCL (Lyphoma) affects vertebral column

⇩

Thecal sac compression

⇩

Cauda equina syndrome

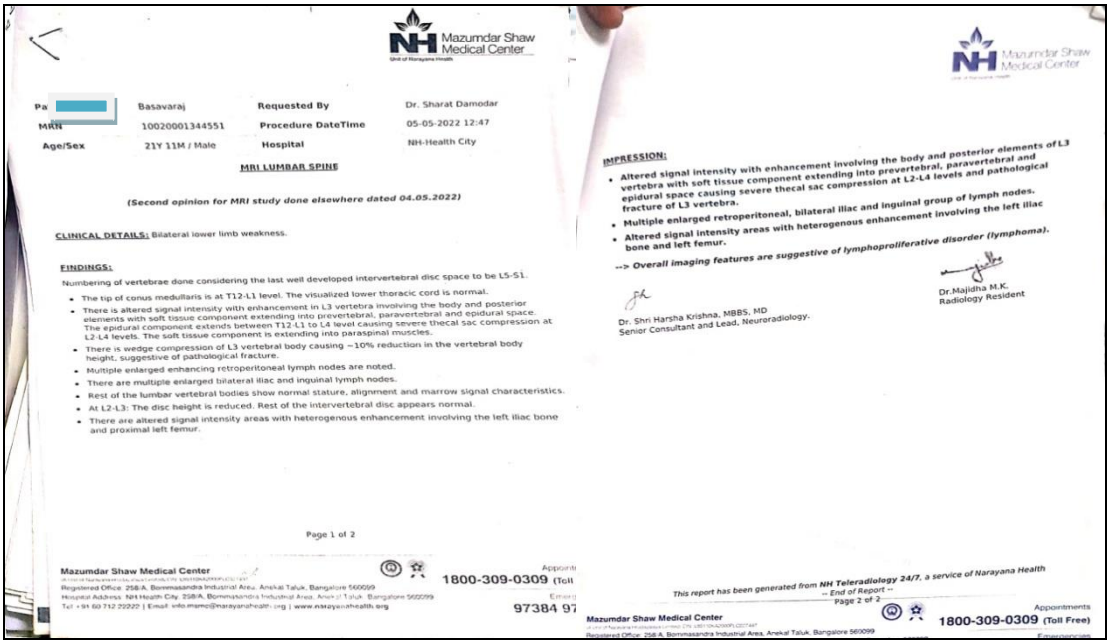
⇩

Chronic neurological defects

⇩

Lower limb weakness, occasional urine and bowel incontinence

INVESTIGATIONS **1** **2**



Mazumdar Shaw Medical Center

Pa [redacted] Basavaraj Requested By Dr. Sharat Damodar
MRN 10020001344551 Procedure DateTime 05-05-2022 12:47
Age/Sex 21Y 11M / Male Hospital NH-Health City

MRI LUMBAR SPINE

(Second opinion for MRI study done elsewhere dated 04.05.2022)

CLINICAL DETAILS: Bilateral lower limb weakness.

FINDINGS:

Numbering of vertebrae done considering the last well developed intervertebral disc space to be L5-S1.

- The tip of conus medullaris is at T12-L1 level. The visualized lower thoracic cord is normal.
- There is altered signal intensity with enhancement in L3 vertebra involving the body and posterior elements with soft tissue component extending into prevertebral, paravertebral and epidural space. The epidural component extends between T12-L1 to L4 level causing severe thecal sac compression at L2-L4 levels. The soft tissue component is extending into paraspinal muscles.
- There is wedge compression of L3 vertebral body causing ~10% reduction in the vertebral body height, suggestive of pathological fracture.
- Multiple enlarged enhancing retroperitoneal lymph nodes are noted.
- There are multiple enlarged bilateral iliac and inguinal lymph nodes.
- Rest of the lumbar vertebral bodies show normal stature, alignment and marrow signal characteristics.
- At L2-L3: The disc height is reduced. Rest of the intervertebral disc appears normal.
- There are altered signal intensity areas with heterogenous enhancement involving the left iliac bone and proximal left femur.

Page 1 of 2

Mazumdar Shaw Medical Center
Registered Office: 258-A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099
Hospital Address: NH Health City, 258/A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099
Tel: +91 80 712 22222 | Email: info.msmc@narayanahealth.org | www.narayanahealth.org
1800-309-0309 (Toll Free)
97384 97

IMPRESSION:

- Altered signal intensity with enhancement involving the body and posterior elements of L3 vertebra with soft tissue component extending into prevertebral, paravertebral and epidural space causing severe thecal sac compression at L2-L4 levels and pathological fracture of L3 vertebra.
- Multiple enlarged retroperitoneal, bilateral iliac and inguinal group of lymph nodes.
- Altered signal intensity areas with heterogenous enhancement involving the left iliac bone and left femur.

--> Overall imaging features are suggestive of lymphoproliferative disorder (lymphoma).

Dr. Shri Harsha Krishna, MBBS, MD
Senior Consultant and Lead, Neuroradiology.

Dr.Majidha M.K.
Radiology Resident

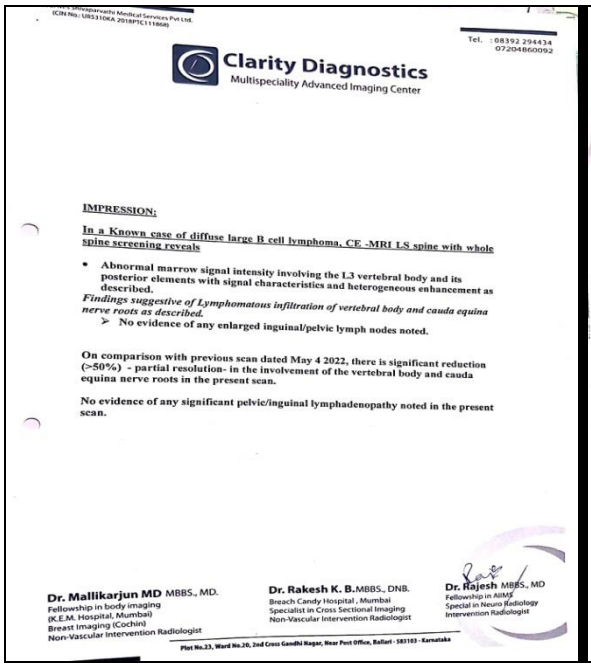
This report has been generated from NH Teleradiology 24/7, a service of Narayana Health

-- End of Report --
Page 2 of 2

Mazumdar Shaw Medical Center
Registered Office: 258-A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099
Appointments
1800-309-0309 (Toll Free)
Emergencies

Image 1&2. MRI report on 5-05-2022

3 **4**



ICIN No.: U85310KA 2018PTC111868

Tel. : 08392 294434
07204660092

Clarity Diagnostics
Multispeciality Advanced Imaging Center

IMPRESSION:

In a Known case of diffuse large B cell lymphoma, CE -MRI LS spine with whole spine screening reveals

- **Abnormal marrow signal intensity involving the L3 vertebral body and its posterior elements with signal characteristics and heterogeneous enhancement as described.**

Findings suggestive of Lymphomatous infiltration of vertebral body and cauda equina nerve roots as described.

- **No evidence of any enlarged inguinal/pelvic lymph nodes noted.**

On comparison with previous scan dated May 4 2022, there is significant reduction (>50%) - partial resolution- in the involvement of the vertebral body and cauda equina nerve roots in the present scan.

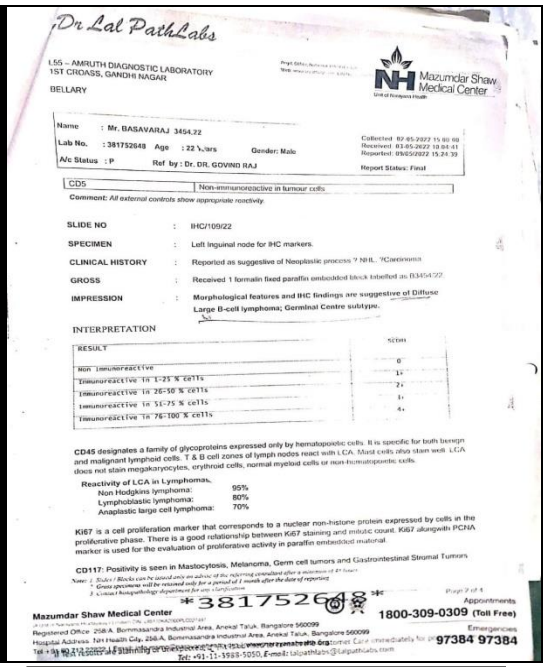
No evidence of any significant pelvic/inguinal lymphadenopathy noted in the present scan.

Dr. Mallikarjun MD MBBS., MD.
Fellowship in body imaging (K.E.M. Hospital, Mumbai)
Breast Imaging (Cochin)
Non-Vascular Intervention Radiologist

Dr. Rakesh K. B. MBBS., DNB.
Breach Candy Hospital , Mumbai
Specialist in Cross Sectional Imaging
Non-Vascular Intervention Radiologist

Dr. Rajesh MBBS., MD
Fellowship in AIIMS
Special in Neuro Radiology
Intervention Radiologist

Plot No.23, Ward No.20, 2nd Cross Gandhi Nagar, Near Post Office, Ballari - 583103 - Karnataka



Dr Lal PathLabs

L55 – AMRUTH DIAGNOSTIC LABORATORY
1ST CROASS, GANDHI NAGAR
BELLARY

Mazumdar Shaw Medical Center

Name : Mr. BASAVARAJ 3454.22
Lab No. : 381752648 Age : 22 Years Gender: Male
A/c Status : P Ref by : Dr. DR. GOVIND RAJ
Collected: 07-05-2022 15:80:60
Received: 07-05-2022 10:84:41
Reported: 09/05/2022 15:24:39
Report Status: Final

CD5	Non-immunoreactive in tumour cells

Comment: All external controls show appropriate reactivity.

SLIDE NO : IHC/109/22
SPECIMEN : Left inguinal node for IHC markers.
CLINICAL HISTORY : Reported as suggestive of Neoplastic process ? NHL. ?Carcinoma
GROSS : Received 1 formalin fixed paraffin embedded block labelled as B3454/22.
IMPRESSION : **Morphological features and IHC findings are suggestive of Diffuse Large B-cell lymphoma; Germinal Centre subtype.**

INTERPRETATION

RESULT	SCORE
Non Immunoreactive	0
Immunoreactive in 1-25 % cells	1+
Immunoreactive in 26-50 % cells	2+
Immunoreactive in 51-75 % cells	3+
Immunoreactive in 76-100 % cells	4+

CD45 designates a family of glycoproteins expressed only by hematopoietic cells. It is specific for both benign and malignant lymphoid cells. T & B cell zones of lymph nodes react with LCA. Most cells also stain well. LCA does not stain megakaryocytes, erythroid cells, normal myeloid cells or non-hematopoietic cells.

Reactivity of LCA in Lymphomas,
Non Hodgkins lymphoma: 95%
Lymphoblastic lymphoma: 80%
Anaplastic large cell lymphoma: 70%

Ki67 is a cell proliferation marker that corresponds to a nuclear non-histone protein expressed by cells in the proliferative phase. There is a good relationship between Ki67 staining and mitotic count. Ki67 alongwith PCNA proliferative phase. There is a good relationship between Ki67 staining and mitotic count. Ki67 alongwith PCNA marker is used for the evaluation of proliferative activity in paraffin embedded material.

CD117: Positivity is seen in Mastocytosis, Melanoma, Germ cell tumors and Gastrointestinal Stromal Tumors

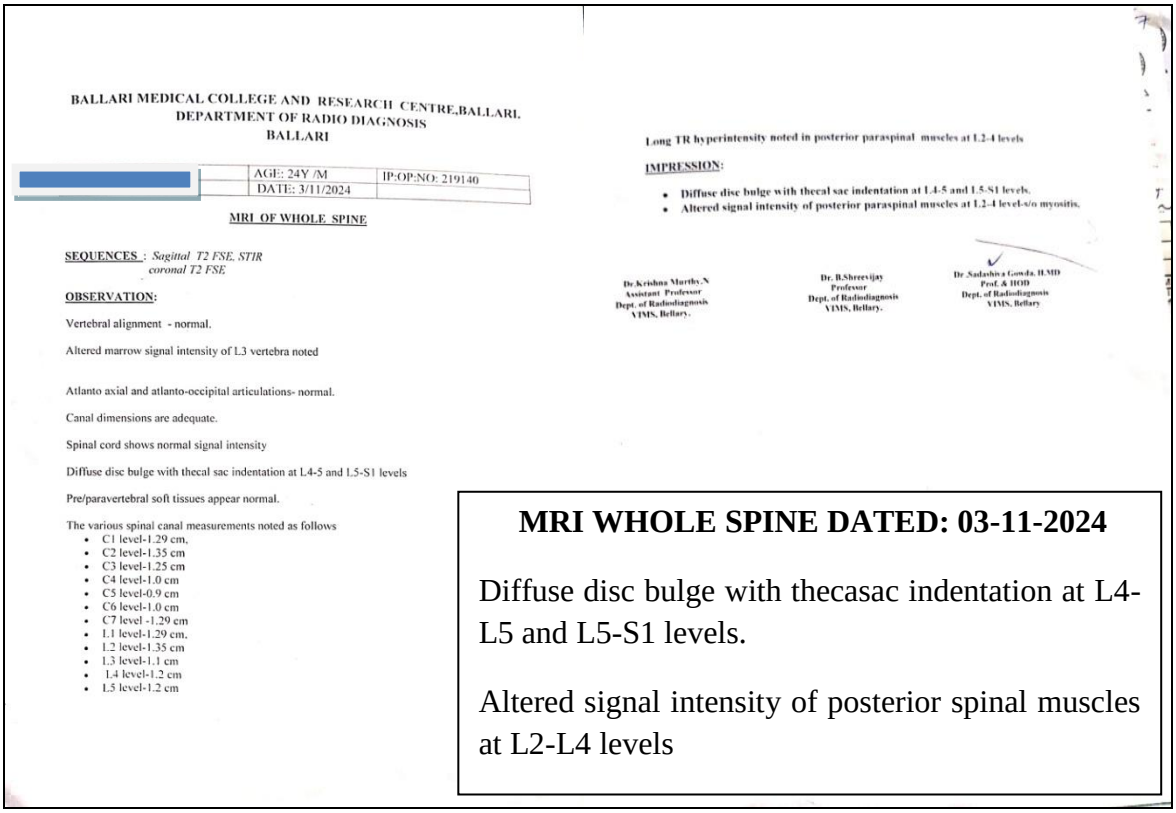
Page 2 of 4

381752648

Mazumdar Shaw Medical Center
Registered Office: 258-A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099
Hospital Address: NH Health City, 258-A, Bommasandra Industrial Area, Anekal Taluk, Bangalore 560099
Appointments
1800-309-0309 (Toll Free)
Emergencies
97384 97384

Image 3. MRI report on 17-10-2022

Image 4. MRI report on 09-05-2022



BALLARI MEDICAL COLLEGE AND RESEARCH CENTRE,BALLARI.
DEPARTMENT OF RADIO DIAGNOSIS
BALLARI

[redacted] AGE: 24Y /M IP:OP:NO: 219140
DATE: 3/11/2024

MRI OF WHOLE SPINE

SEQUENCES : *Sagittal T2 FSE, STIR*
coronal T2 FSE

OBSERVATION:

Vertebral alignment - normal.

Altered marrow signal intensity of L3 vertebra noted

Atlanto axial and atlanto-occipital articulations- normal.

Canal dimensions are adequate.

Spinal cord shows normal signal intensity

Diffuse disc bulge with thecal sac indentation at L4-5 and L5-S1 levels

Pre/paravertebral soft tissues appear normal.

The various spinal canal measurements noted as follows
- C1 level-1.29 cm,
- C2 level-1.35 cm
- C3 level-1.25 cm
- C4 level-1.0 cm
- C5 level-0.9 cm
- C6 level-1.0 cm
- C7 level -1.29 cm
- L1 level-1.29 cm,
- L2 level-1.35 cm
- L3 level-1.1 cm
- L4 level-1.2 cm
- L5 level-1.2 cm

Long TR hyperintensity noted in posterior paraspinal muscles at L2-4 levels

IMPRESSION:
- Diffuse disc bulge with thecal sac indentation at L4-5 and L5-S1 levels.
- Altered signal intensity of posterior paraspinal muscles at L2-4 level-s/o myositis.

Dr.Krishna Murthy.N
Assistant Professor
Dept. of Radiodiagnosis
VIMS, Bellary.

Dr. B.Shreevijay
Professor
Dept. of Radiodiagnosis
VIMS, Bellary.

Dr.Sudeshna Gowda. H.MD
Prof. & HOD
Dept. of Radiodiagnosis
VIMS, Bellary

MRI WHOLE SPINE DATED: 03-11-2024

Diffuse disc bulge with thecasac indentation at L4-L5 and L5-S1 levels.

Altered signal intensity of posterior spinal muscles at L2-L4 levels

CHIKITSA

THERAPEUTIC INTERVENTION

Treatment			
Date	**Procedure**	**Oushadhis used**	**Days**
11-08-2025	Kostashodhana(30ml)	Gandharvahasthadi eranda taila	1
12-08-2025 19-08-2025	Katibasti	Ashvagandhabalalaxadi taila+chandanabalalaxadi taila	8
	Kukkutandasweda	Egg+pippali+haridra+lashuna+saidhava lavana	
25-08-2025 01-09-2025	Shashtikashali pinda sweda	Shashtikashali+balamoola kashaya	8
	Matrabasti	sahacharadi(20ml) +Ashwagandhabalaxadi taila(20)+majja(20gm)	

1st Followup

Treatment			
Date	**Procedure**	**Oushadhis used**	**Days**
10-10-2025	Kostashodhana(30ml)	Gandharvahasthadi eranda taila	1
11-10-2025 18-10-2025	Katibasti	murivenna taila+chandabalaaxadi taila	8
	Kukkutandasweda	Egg+pippali+haridra+lashuna+saidhava lavana	
23-10-2025 30-10-2025	Shashtikashali pinda sweda	Shashtikashali+balamoola kashaya	8
	Matrabasti	sahacharadi(20ml) +Ashwagandhabalaxadi taila(20)+majja(20gm)	

SHMANOUSHADHIS

Ashwagandha vati	1 tid afterfood
Hingwastaka+amalaki churna	½ tsp before food with warm water

RESULT AND OBSERVATIONS

EXHAMINATIONS	**TREATMENT**		**TREATMENT**	
	BEFORE	**AFTER**	**BEFORE**	**AFTER**
	RIGHT	**RIGHT**	**LEFT**	**LEFT**
MUSCLE BULK	Mid thigh-42cm Lower thigh-32cm	Mid thigh-44cm Lower thigh-35cm	Mid thigh-46cm Lower thigh-35cm	Mid thigh-46cm Lower thigh-36cm

	Upper calf-26cm Lower calf-24cm	upper calf-26cm Lower calf-24cm	Upper calf-27cm Lower calf-24.5cm	Upper calf-27cm Lower calf-24.5cm
MUSCLE POWER	**2/5**	**3/5**	**5/5**	**5/5**
MUSCLE TONE	Normotonic	Normotonic	Normotonic	Normotonic
DEEP REFLEXES KNEE AND ANKLE	Diminished	Diminished	Diminished	Diminished
SLR	**50***	**70***	**-ve**	**-ve**
FNST	Unable to elict	Unable to elict	Unable to elict	**-ve**
GAIT	Difficulty and fear to walk without support		Able to without fear and support	

DISCUSSIONS

DISCUSSIONS ON DISEASE

The present case involves a 24-year-old male with chronic neurological sequelae following **Diffuse Large B-Cell Lymphoma (DLBCL)** affecting the lumbosacral region. The history reveals an insidious onset of pulling pain and numbness in both lower limbs, which rapidly progressed to acute urinary retention and bilateral lower-limb weakness. Subsequent evaluation at Narayana Health Hospital confirmed DLBCL, for which appropriate oncological treatment was administered. Despite successful cancer management, the patient was left with persistent motor weakness, reduced muscle strength, bowel–bladder dysfunction, and impaired gait, suggesting chronic neurological damage due to prolonged neural compression or infiltration.

From an Ayurvedic standpoint, the condition can be correlated with **Agantuja Vatavyadhi**, particularly **Asthimajjagata Vata / Pangu Vata**, where external pathology leads to severe Vata vitiation manifesting as muscle wasting, weakness, sensory deficits, and impaired autonomic control. Considering the chronicity and Vata predominance, a structured Panchakarma was planned.

Therapeutic interventions included **Kostashodhana** to regulate Apana Vata, mala nirharana, followed by localized and systemic **Snehana–Swedana** procedures such as Katibasti, Kukkutanda Sweda, and Shashtikashali Pinda Sweda, aimed at improving neuromuscular nourishment, circulation, and tissue regeneration. Kukkutanda sweda has been described by acharya charaka as sadyobalakara that is most helpful in ksheenadhatu.[5] **Matrabasti**, being the prime therapy for Vata disorders, was employed to exert systemic neuroprotective and brimhana effects. The same protocol was reinforced during follow-up to consolidate gains and enhance functional recovery.

The outcomes demonstrate objective and functional improvement. There was a noticeable increase in muscle bulk of both lower limbs, improvement in muscle power of the right lower limb (from 2/5 to 3/5), increased straight leg raise angle, and marked improvement in gait, with the patient becoming able to walk without fear or support. Although deep tendon reflexes remained diminished—indicating residual neurological deficit—the overall gains in strength, stability, and confidence suggest effective rehabilitation.

This case highlights the role of **Ayurvedic Panchakarma-based integrative rehabilitation** as a supportive strategy in managing chronic neurological deficits following malignancy-related spinal involvement.

DISCUSSIONS ON TREATMENT

Kukkutanda sweda[6]

Kukkutanda Sweda contains egg (kukkutanda), taila, saindhava lavana, lashuna,pippali-marichachurna, haridra etc which possess Vata–Kapha hara and poshaka gunas**,** making it effective in Sandhi/majjagata Vata**.** Taila acts as vatahara and snehana karma. while Saindhava lavana facilitates deeper tissue penetration and Kapha vilayana. The Ushna and Tikshna properties of Kukkutanda Sweda increase local temperature, causing vasodilation**,** improved circulation, stimulation of Bhrajak Pitta**,** and better absorption of nutrients. This leads to reduction of pain, stiffness, inflammation**,** and removal of metabolic waste.	Eggs provide bioactive components such as glucosamine, chondroitin sulphate, hyaluronic acid, amino acids, minerals, and vitamins**,** which help in cartilage protection, joint lubrication, pain reduction, and prevention of degeneration. .The lipid-soluble components enable transdermal absorption of fat-soluble vitamins (A, D, E, K)**,** providing anti-inflammatory effects**,** supporting bone health, neuromuscular function, and preventing muscle wasting.

Kati Basti[7]

Kati Basti is a Sthanika Ayurvedic therapy in which warm medicated oil is retained over the lumbosacral region. The Ushna and Snigdha properties of the taila pacify Vata Dosha, which is the primary causative factor in low back disorders.	The sustained warmth causes vasodilation, improving local blood circulation, oxygen supply, and nutrient delivery to deeper tissues such as muscles, ligaments, intervertebral discs**,** and nerves. This enhances tissue metabolism and facilitates the removal of inflammatory

The heat stimulates Bhrajak Pitta, enabling better transdermal absorption of lipid-soluble herbal components. These active principles penetrate deeper tissues and exert anti-inflammatory**,** analgesic, and muscle-relaxant effects. Kati Basti also promotes Snehana of joints and soft tissues, reducing Stambh, Shula, and spasm.	mediators and metabolic waste products. The thermal effect improves nerve conduction, relaxes paraspinal muscles, and relievesnervecompressionsymptoms. Additionally, the therapy balances Vyana Vayu and Apana Vayu, restoring normal movement, stability, and functional activity of the lumbar region.

Shashtikashali pinda sweda[8]

Shashtika Shali Pinda Sweda is a Snigdha Swedana therapy that combines Swedana with Brimhana. The medicated potali prepared with Shashtika shali, ksheera, and Bala kashaya posesses Madhura Rasa, Snigdha Guna, Sheeta Veerya, and Brimhana properties, which effectively pacify Vata Dosha and promote tissue regeneration. The heat stimulates Bhrajak Pitta, promoting transdermal absorption of lipid-soluble active constituents from milk and medicated decoction. These nutrients penetrate the skin and nourish deeper tissues through Rasa Dhatu circulation, leading to Dhatu Poshana and Balya (strengthening) effects. The combined action of Snehana and Swedana improves muscle tone, reduces spasticity, increases joint flexibility, and enhances neuromuscular coordination. It also stimulates Vyana Vayu, improving microcirculation and functional mobility.	The sustained warmth produced during the therapy causes vasodilation, improving local blood circulation, oxygenation, and nutrient supply to muscles, nerves, and joints. This enhances cellular metabolism and facilitates the removal of metabolic waste, thereby reducing pain, stiffness, and inflammation. The presence of vitamin B facilitates its absorption into the systemic circulation through the transdermal route, which subsequently supports the normal functioning of the nervous system. It contains compounds like Oryzanol (according to study, gamma-oryzanol improves exercise endurance and muscle strength by upregulating activity in aged mice).

Matra Basti

Matra Basti is a Snigdha Anuvasana type of Basti that plays a vital role in the management of Asthi-Majjagata Vata, where Vata Dosha causes degeneration of bone and marrow tissues. The unctuous and nourishing oils used in Matra Basti pacify aggravated Vata**,** improve Asthi and Majja Dhatu nourishment, and prevent further tissue depletion. The administered oil is absorbed through the rectal mucosa, producing systemic Snehana and Rasayana effects**,** improving tissue lubrication, microcirculation, and cellular nutrition. It helps reduce shoola, rukshata, sthambha, and dourbalya associated with degenerative disorders. Matra Basti also regulates Apana Vayu**,** indirectly balancing Vyana Vayu**,** thereby improving neuromuscular function and joint mobility**.**	Mātrā basti acts as a lipid-based neuromodulatory intervention influencing the enteric–central nervous system axis, reducing neuro-inflammation, enhancing marrow and neural nutrition, and restoring functional integrity of the bone–marrow–nerve unit. This explains its unique efficacy in Asthi-Majjāgata Vāta from a modern biomedical perspective.

Oushadhi dravya	**Benefits**
Gandharvahasthadi eranda taila	Vatanuloma,corrects apanavata vaigunya
Ashvagandhabalalaxadi taila	Asthimajja poshaka, vatashamaka
Chandanabalalaxadi taila	Snigdha and brimhana
Sahacharadi taila	Sthambha, shula hara
Ashwagandha vati	Dhatu poshaka, vatahara
Hingwastaka churna	Deepana, pachana vatahara
Aamalaki churna	Rasayana
Majja	Asthnaam balakruth due to its Snigdha, Pichchila, Guru, and Asthi DhatuBrimhana- Poshana guna karma. and hita for snehana

Overall the treatment approach was planned with the objectives of

- Pacifying aggravated Vata Dosha
- Nourishing depleted tissues (Asthi and Majja Dhatu)

- Improving neuromuscular function
- Preventing further degeneration
- Enhancing functional independence and quality of life

Thus, the combined use of Katibasti, Kukkutanda Sweda, and Matra Basti provided a comprehensive approach addressing both the local pathology and systemic Vata imbalance, resulting in functional improvement without adverse effects.

CONCLUSION

This case represents a neurological deficit secondary to Diffuse Large B-Cell Lymphoma (DLBCL) with spinal involvement, clinically resembling Katigata Vata / Adhoshakha Gata Vata with features of Marmabhighata and Majja Dhatu Kshaya. The present case demonstrates that an integrated Ayurvedic Panchakarma approach comprising Basti karma, sthanika Swedana, Snehana and Brimhana modalities can produce meaningful clinical improvement in patients with neurological deficits secondary to spinal compression. Although complete neurological recovery was not achieved due to chronicity and structural damage, the patient showed.

- Objective improvement in muscle power and bulk
- Significant functional gait recovery
- Partial improvement in bowel and bladder control
- Enhanced physical independence

Thus, Ayurveda-based rehabilitative management can be considered a valuable adjuvant therapy in chronic neuro-oncological and compressive myelopathy conditions to improve functional outcomes and quality of life.

REFFERENCES

1. MA Bin, WU Hong, JIA Lian-shun, YUAN Wen, SHI Guo-dong and SHI Jian-gang. Cauda equina syndrome: a review of clinical progress. Chin Med J., 2009; 122(10): 1214-1222.
2. Bagley C, Gokaslan ZL (2004) Cauda equina syndrome caused by primary and secondary neoplasms. J Neurosurg Neurosurg Focus, 16: 11–18.
   2.2. *Bagley C, Gokaslan ZL. Cauda equina syndrome caused by primary and secondary neoplasms. J Neurosurg Neurosurg Focus, 2004; 16: 11–18. doi:10.3171/foc.2004.16.6.3.* [DOI] [PubMed] [Google Scholar]
3. Tandon PN, Sankaren B. Cauda equina syndrome due to lumbar disc prolapse. Indian J Orthop, 1967; 1: 112-116.
4. Pandit Parashurama Shastri Vidyasagar edited Sharangadhara Samhita, Deepika Commentory by Adamalla on Prathama Khanda, Chapter 7, Sloka No. 105, Page.
5. Dr. Bramhanand Tripathi, Charaka Samhita Purvardh; Sutrasthana, Annapana Vidhi Adhyaya 27, Chaukhamba Surbharati Prakashan, Varanasi, Edition 2017; Shloka 85-87.
6. Minu Yadav, Nidhi Gupta, Gopesh Mangal, Neeraj Soni. Conceptual Study on Kukkutanda Pinda Sweda: A Review Article. Research & Reviews: A Journal of Health Professions, 2020; 10(3): 14-18.
7. Huilgol P, Koralli A. Design, development, and validation of a smartphone-controlled automated Kati basti device for enhanced management of low back pain. Int J Ayurveda Res, 2024; 5(1): 23-30. doi:10.4103/ijar.ijar_132_23. Verma J, Gopesh M, Garg G. Shashtika Shali Pinda Sweda (A unique bolus massage): A review article. J AYUSH Ayurveda Yoga Unani Siddha Homeopathy, 2019; 8(2): 26-30.
8. Mangal G, Damor JB, Gupta N. Comprehensive approaches of Matra Basti: a review. World J Pharm Res, 2019; 8(13): 1590-1600. doi:10.20959/wjpr201913-16330.