Management of *Gridhrasi* with Special Reference to Sciatica- A Case Report

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Abstract:

Background: Sciatica, a disorder in which low back pain is often accompanied by pain, weakness, numbness, and other discomforts along the sciatic nerve's path, is comparable to gridhrasi. This widespread sickness, which costs billions of dollars in medical bills and causes more missed work days than any other illness except the common cold, primarily affects adults. At some point in their life, 50–70% of people will experience low back pain, and 4-6% of people will develop clinically significant sciatica due to lumbar disc prolapse. In the world, low back pain and sciatica are two of the main causes of morbidity. There are limitations in modern medicine that keep it from producing surgical side effects or long-term pain relief.**Aim & Objectives:** The current study set out to evaluate the therapeutic results of treating individuals with Gridhrasi with Ayurvedic Shaman, Shodhan, and Viddha karma..**Materials & Methods:** This is just one case study. In the Kayachikitsa department, a 60-year-old female patient was admitted after receiving a diagnosis of intervertebral disc protrusion at L4-L5 & L5-S1, which was co-related with Gridhrasi of the left leg for 11 months. The patient received a one-month course of treatment consisting of Snehan, Swedan, Katibasti, Kalabasti with Dashmool tail & Dashmool kwath, Viddhakarma, and Shaman Chikitsa. **Results:** After a month, the patient's symptoms were assessed, and the results were satisfactory and the patient's general quality of life had greatly improved. **Conclusion:** The aforementioned therapy significantly reduces symptoms when managing Gridhrasi.

Keywords: *Shaman Chikitsa; Kalabasti; Siravedh; Katibasti; Viddhakarma.*

Introduction:

Low back pain is the most prevalent musculoskeletal condition that impairs leg movement. Forty percent of those affected report having radicular discomfort, which is categorized as sciatic syndrome in general. Every year, more than 50% of working people have back pain.[1] In Ayurveda, low back pain, or sciatica condition, is associated with Gridhrasi. Gridhrasi is one of the eighty kinds of *Nanatmaja Vata Vyadhi* according to *Shula Pradhana. Vataja Gridhrasi,* according to *Charaka,* takes the forms of *Stambha, Ruka, Toda,* and *Spandana. Aruchi, Tandra,* and *Gaurava* are additional indications of *Vata-Kaphaja Gridhrasi.*[2] Sciatica can be caused by a herniated disc, spinal stenosis, piriformis syndrome, etc. Sciatica does not have a perfect remedy in current medicine. Modern science indicates that cautious treatment for sciatica should be followed throughout the first 6–8 weeks of the condition. The levels of evidence supporting the effectiveness of patient education, advice to maintain an active lifestyle, physical therapy analgesics, non-steroidal anti-inflammatory drugs (NSAIDs), epidural corticosteroid injections, and transforaminal peri-radicular injections of corticosteroid have been analyzed and discussed. Strong evidence exists to support the effectiveness of discectomy in the short term. However, it is not more effective than continued conservative care over the long run.[3] Many writers in Ayurveda, such as *Charaka,*

Vagbhata, Sushruta, and others, have written about various methods of treating illness, such *as Bheshaja, Kshara, Agni, Shastra*, and *Raktamokshana karma*.[4] The goal of this case study is to outline how *Shaman, Shodan*, and *Siravedh Chikitsa* manage *Gridhrasi* patients.

Case Report:

A 60-year-old female patient was taken to the hospital under the Kayachikitsa department, complaining of tingling and numbness in her left leg, as well as back discomfort that had been radiating from her lower back to that leg for 11 months. The patient was unable to comfortably walk long distances, squat, or sit on the ground for a full year. For the previous ten years, the patient has been treated for hypertension with regular medication (Tab Telmisartan 40 mg OD). There was no other history of diabetes, thyroid dysfunction, or any other serious illnesses. A single LSCS was performed on the patient thirty years prior. The patient's medical condition was good a year ago, according to the current history. But after that, she began to experience difficulty with long-distance walking, stair climbing, squatting, and sitting on the ground before standing up. During these exercises, she experienced extreme pain, stiffness, and tingling. The lower back to left leg was the primary source of pain. The pain was like burning, prickling, pulsating misery. The patient also occasionally suffered from anorexia, heaviness in the stomach, and constipation. The tingling and numbness have gotten worse during the previous eleven months. The patient took NSAIDs for severe pain relief, but the benefits were transient.

Diagnostic Assessment:

Together with *Astavidh pariksha*, general examinations with vital signs and systematic examinations were performed on her. The examination details were listed in Tables 1, 2, and 3, in that order. Figures 10 and 11 depict the patient's SLR examination.

Diagnostic methods:

The results of radiological investigations revealed bilateral posterolateral disc protrusion at the L4-L5 and L5-S1 levels, respectively, and posteroventral disc protrusion, as shown in Figures 1, 2, 3, and 4. An X-ray of the spine was also performed, and the results are shown in Figures 5, 6, and 7 with minimal anterolistesis and degenerative consequences. Serum calcium levels were marginally lower and serum vitamin D3 levels were declining, as seen in Figures 8 and 9.

Diagnostic challenges:

Muscle spasms, Nerve root impingement, tumor, SOL, or cyst at intervertebral spaces are differential diagnoses that mimic the same situation.

Diagnosis (including other diagnoses considered):

The patient was diagnosed with *Gridhrasi,* a condition associated with sciatica, following a diagnostic and clinical evaluation, after all other differential diagnoses had been ruled out.

Treatment:

Treatment of the patient included *Shaman chikitsa* with *Brihatvaatchintamani rasa*[4], *Mahavaatvidhvansa rasa*[4], *Amapachak vati, Parijatak ghanavati*[5], *Trayodashang guggul*[6], *Sunthi siddha Erand sneha.Shodhan chikitsa* were also implemented by the patientsincluding*Sarvang Snehan Sweden, Kati Basti,*and *Kalabasti*[7]. Three *Viddhakarma*settings were carried out after every 7 days (Figure 13 & Figure 14). Detailed treatmentsare mentioned in Table 4. Continuous follow-up was taken from the patient and within the first seven days patient's condition started improving. After completing 30 days of treatment patient showed remarkable improvement in her condition.

Table 1- Vital Parameters

Sr. no.	Heads	Findings
1	Heart Rate	82/min
2	Blood Pressure	130/90 mmHg
3	Respiratory Rate	14/min
4	Body Temperature	98 Degree Fahrenheit
5	Weight	90 Kg
6	Height	162 cm
7	B.M.I.	34.3

Table- 2 Systemic Examination

Sr. No.	Heads	Findings
1	CNS	Conscious, oriented
2	CVS	S1,S2 Normal
3	RS	AEBE
4	Musculoskeletal Examination	Inspection- unable to walk normally, Gait- Antalgic gait present Swelling – Present over left leg

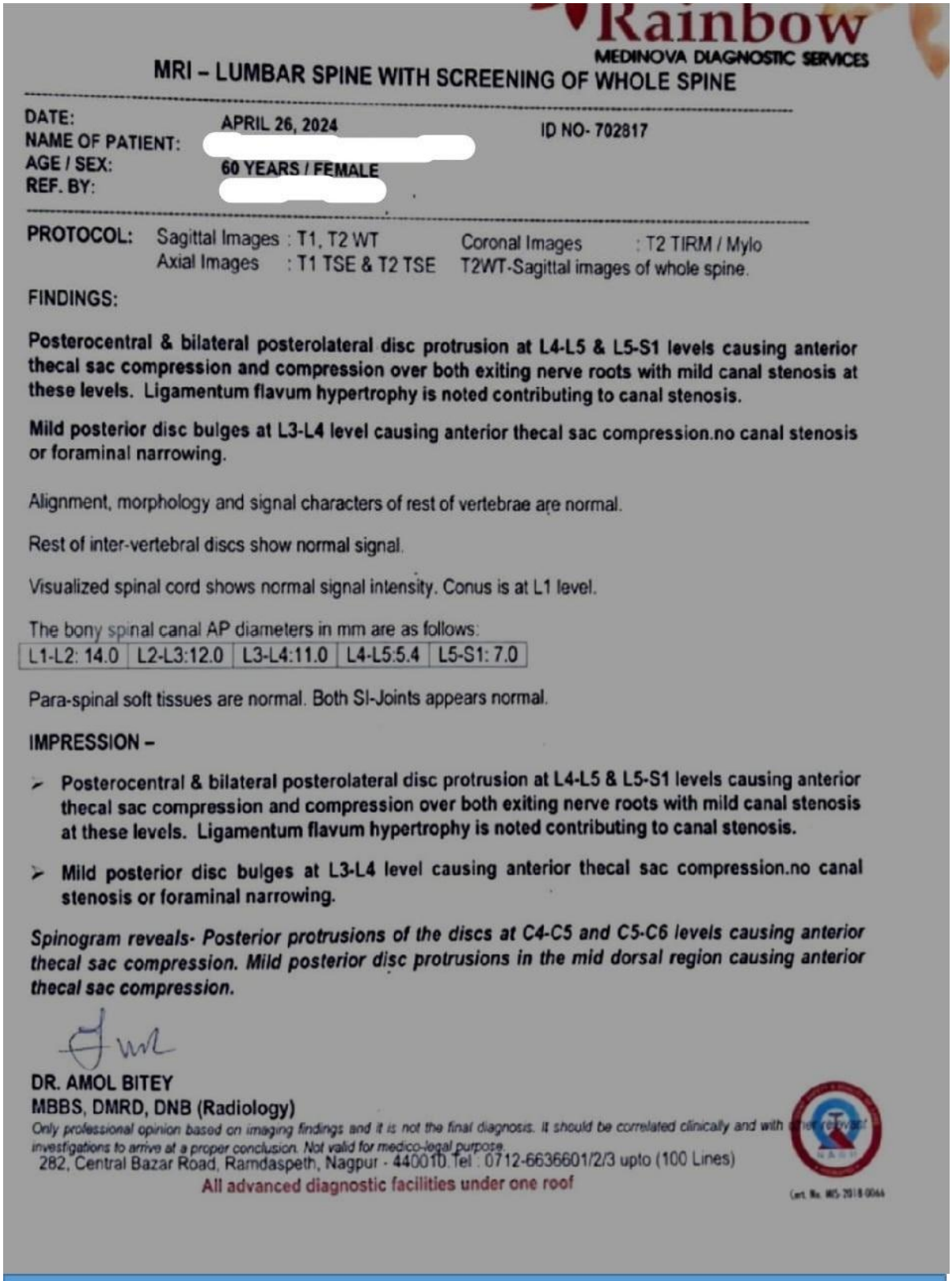
		Palpation- L2, L3, L4, S1,S2 Pain, stiffness present, Tenderness- Present (over back) SLR- Right- 50 degrees painful, Lt- 30 degrees painful, Schober's test- 4.6 cm, Bowstring test- Positive

Table- 3 ***Ashtavidh Parikshan***

Sr. No.	**Heads**	**Findings**
1	*Nadi*	*Vata-kapha Predominant*
2	*Mala*	*Kathin malapravrutti*
3	*Mutra*	*Samyak*
4	*Jihva*	*Sama*
5	*Shabda*	*Spashta*
6	*Sparsha*	*Anushnasheeta*
7	*Drik*	*Aspasta drishti*
8	*Akruti*	*Sthool*

Table- 4 Treatment Protocol				
	A. ***Shaman Chikitsa***	Doses	Duration	Anupaan
1	*Trayodashang Guggul*	500 mg 3 times a day after a meal	30 days	Luke warm water
2	*Parijatak ghanavati*	250 mg 3 times a day after meal	30 days	Luke warm water
3	*Brihatvaatchintamani rasa*	1mg OD early morning before	30 days	butter

		meal		
4	*Mahavaatvidhvansa rasa*	250 mg BD after meal	30 days	Luke warm water
5	*Amapachak vati*	250 mg BD after meal	30 days	Luke warm water
	B. ***Shodhan Chikitsa***			
1	*Sarvang Snehan with Bala Tail*	30 min in Morning		30 days
2	*Sarvang Swedan (Kutiswed)*	15 min after Snehan		30 days
3	*Katibasti with Bala Tail*	30 min		15 days
4	*Kaalbasti with Dashmool tail and Dashmool kwath*	120 ml *Dashmool tail* for *Anuvasan basti* and 500 ml *Dashmool kwath* for *Niruha basti*		Last 15 days
	C. Viddha			
1	Viddhakarma (2 angula above and below Lt *Indrabasti Marma*)	1-2 min	After Every 7 Days (3 settings)	



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MRI – LUMBAR SPINE WITH SCREENING OF WHOLE SPINE

DATE: APRIL 26, 2024 ID NO- 702817
NAME OF PATIENT: [redacted]
AGE / SEX: 60 YEARS / FEMALE
REF. BY: [redacted]

PROTOCOL: Sagittal Images : T1, T2 WT Coronal Images : T2 TIRM / Mylo
Axial Images : T1 TSE & T2 TSE T2WT-Sagittal images of whole spine.

FINDINGS:

Posterocentral & bilateral posterolateral disc protrusion at L4-L5 & L5-S1 levels causing anterior thecal sac compression and compression over both exiting nerve roots with mild canal stenosis at these levels. Ligamentum flavum hypertrophy is noted contributing to canal stenosis.

Mild posterior disc bulges at L3-L4 level causing anterior thecal sac compression.no canal stenosis or foraminal narrowing.

Alignment, morphology and signal characters of rest of vertebrae are normal.

Rest of inter-vertebral discs show normal signal.

Visualized spinal cord shows normal signal intensity. Conus is at L1 level.

The bony spinal canal AP diameters in mm are as follows:

L1-L2: 14.0	L2-L3:12.0	L3-L4:11.0	L4-L5:5.4	L5-S1: 7.0

Para-spinal soft tissues are normal. Both SI-Joints appears normal.

IMPRESSION –

- **Posterocentral & bilateral posterolateral disc protrusion at L4-L5 & L5-S1 levels causing anterior thecal sac compression and compression over both exiting nerve roots with mild canal stenosis at these levels. Ligamentum flavum hypertrophy is noted contributing to canal stenosis.**
- **Mild posterior disc bulges at L3-L4 level causing anterior thecal sac compression.no canal stenosis or foraminal narrowing.**

Spinogram reveals- Posterior protrusions of the discs at C4-C5 and C5-C6 levels causing anterior thecal sac compression. Mild posterior disc protrusions in the mid dorsal region causing anterior thecal sac compression.

DR. AMOL BITEY
MBBS, DMRD, DNB (Radiology)
Only professional opinion based on imaging findings and it is not the final diagnosis. It should be correlated clinically and with other relevant investigations to arrive at a proper conclusion. Not valid for medico-legal purpose.
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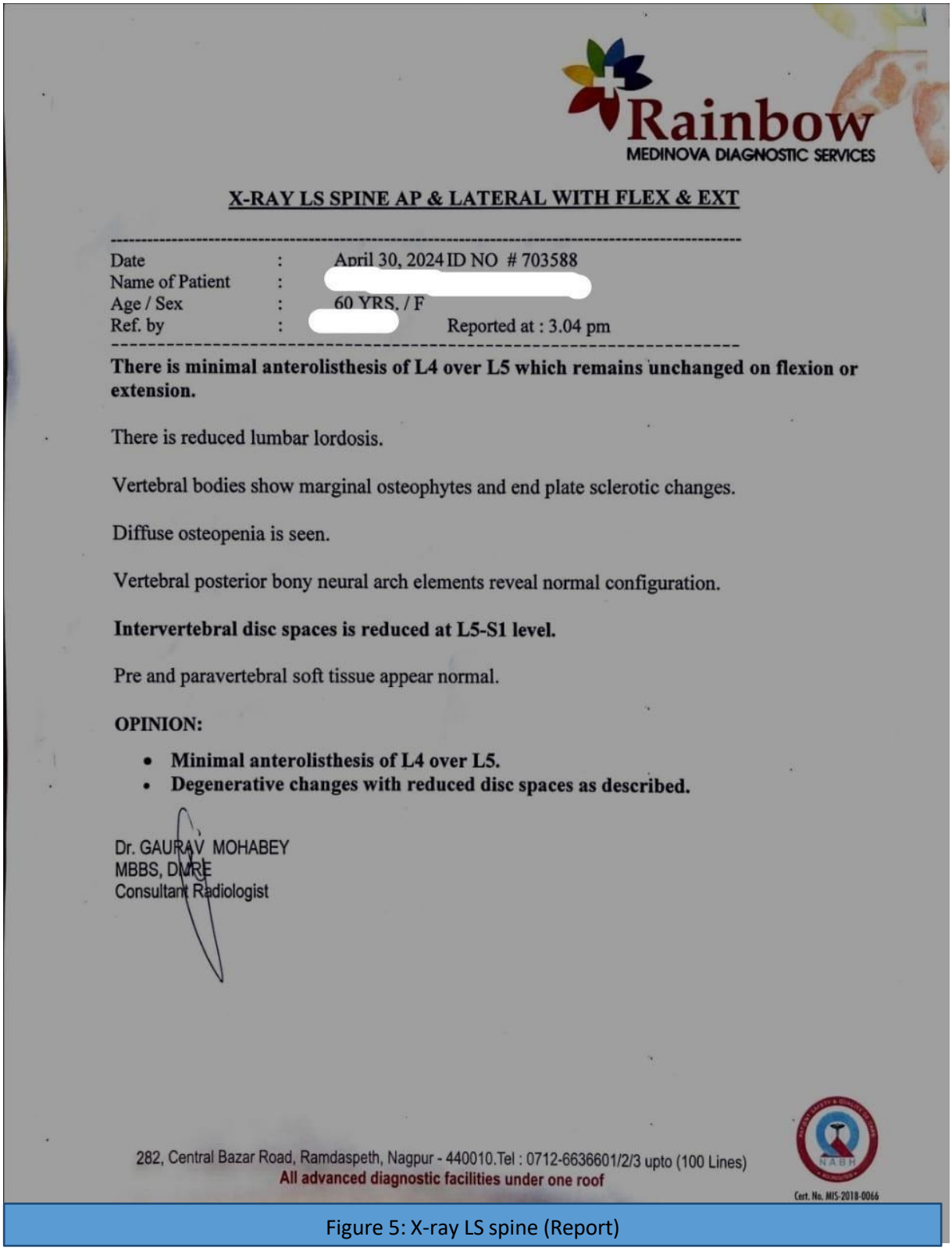
Figure 1: MRI LUMBAR SPINE WITH WHOLE SPINE (REPORT)

Figure 2: MRI LUMBAR SPINE (SAGITAL IMAGES)

Figure 3: MRI LUMBAR SPINE (CORONAL IMAGES)

Figure 4: MRI LUMBAR SPINE (AXIAL IMAGES)



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X-RAY LS SPINE AP & LATERAL WITH FLEX & EXT

Date : April 30, 2024 ID NO # 703588
Name of Patient :
Age / Sex : 60 YRS. / F
Ref. by : Reported at : 3.04 pm

There is minimal anterolisthesis of L4 over L5 which remains unchanged on flexion or extension.

There is reduced lumbar lordosis.

Vertebral bodies show marginal osteophytes and end plate sclerotic changes.

Diffuse osteopenia is seen.

Vertebral posterior bony neural arch elements reveal normal configuration.

Intervertebral disc spaces is reduced at L5-S1 level.

Pre and paravertebral soft tissue appear normal.

OPINION:

- **Minimal anterolisthesis of L4 over L5.**
- **Degenerative changes with reduced disc spaces as described.**

Dr. GAURAV MOHABEY
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Consultant Radiologist

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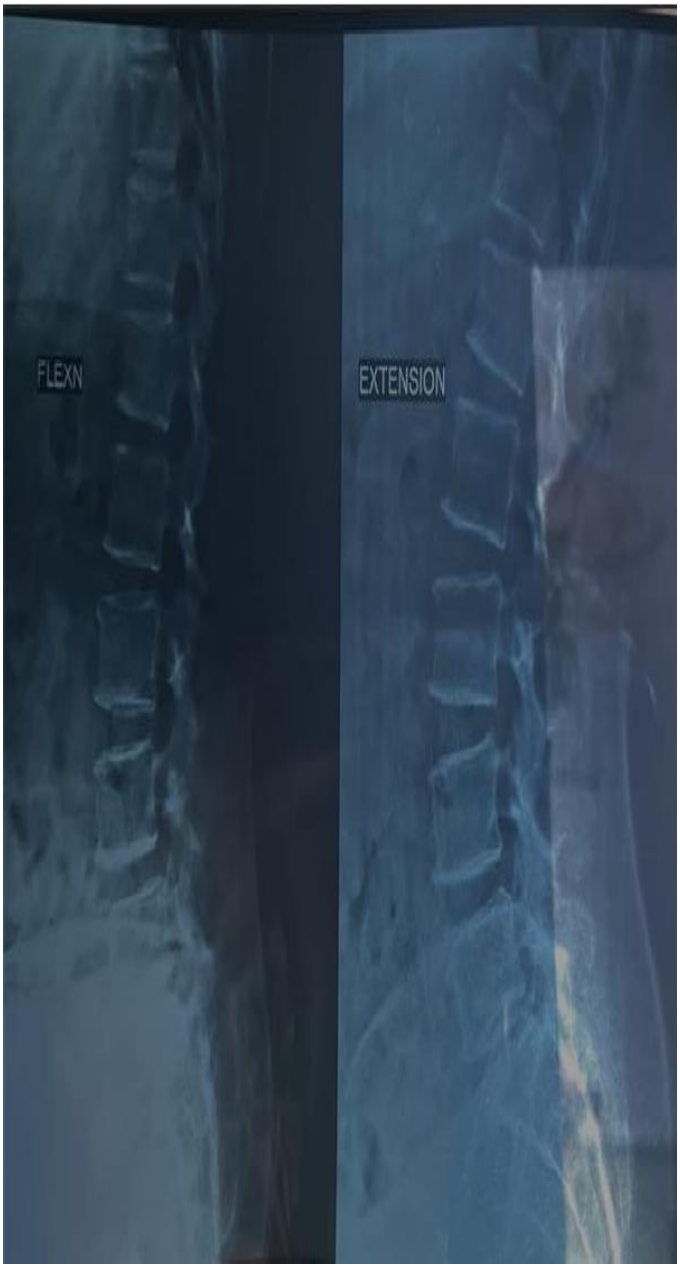
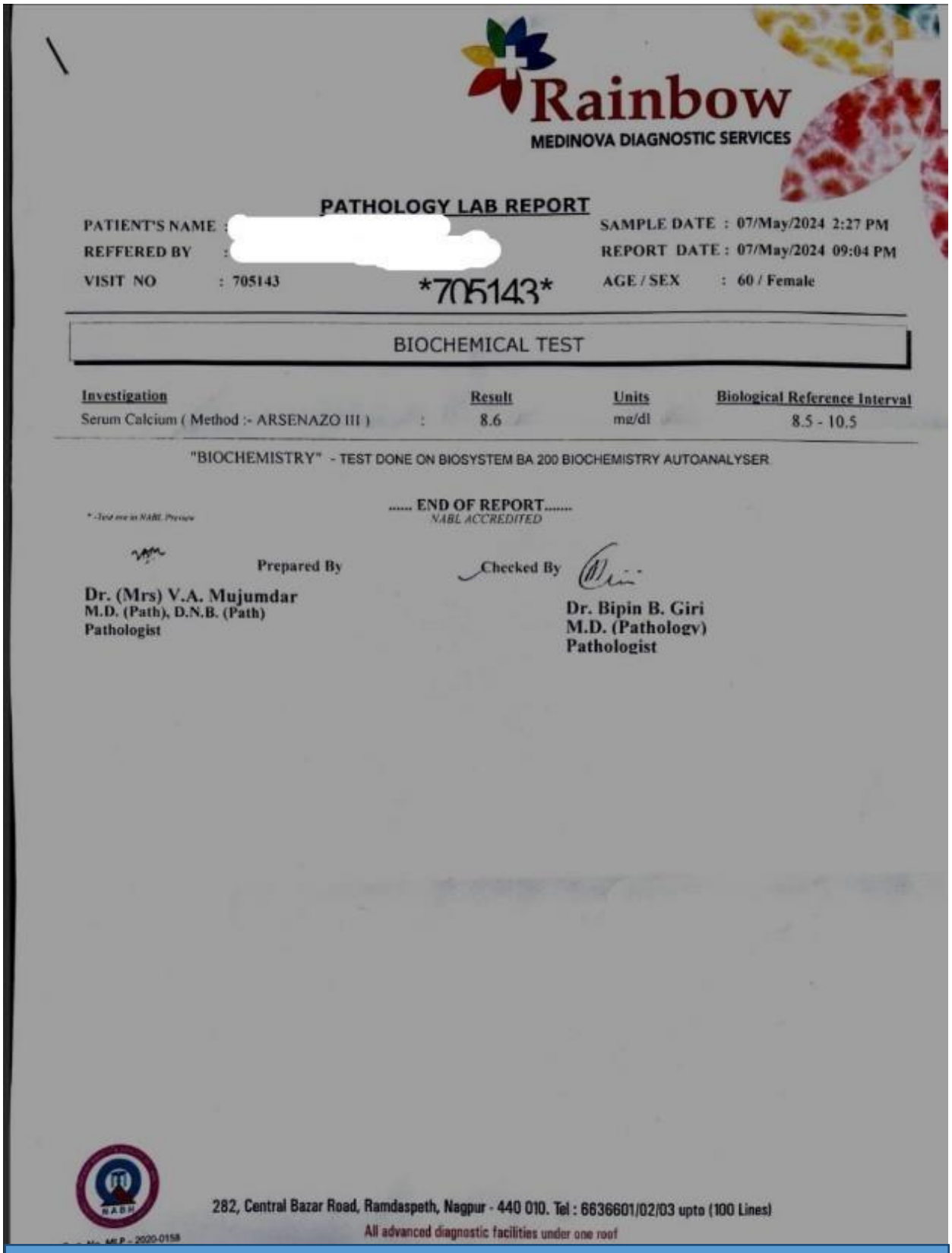
Figure 5: X-ray LS spine (Report)

Figure 6: X-ray Spine- AP View

Figure 7: X- Ray Spine Lateral View (Flexion and Extension)





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PATHOLOGY LAB REPORT

PATIENT'S NAME : [redacted]
REFFERED BY :
VISIT NO : 705143 *705143*
SAMPLE DATE : 07/May/2024 2:27 PM
REPORT DATE : 07/May/2024 09:04 PM
AGE / SEX : 60 / Female

BIOCHEMICAL TEST

Investigation		Result	Units	Biological Reference Interval
Serum Calcium (Method :- ARSENAZO III)	:	8.6	mg/dl	8.5 - 10.5

"BIOCHEMISTRY" - TEST DONE ON BIOSYSTEM BA 200 BIOCHEMISTRY AUTOANALYSER

..... END OF REPORT.....
NABL ACCREDITED

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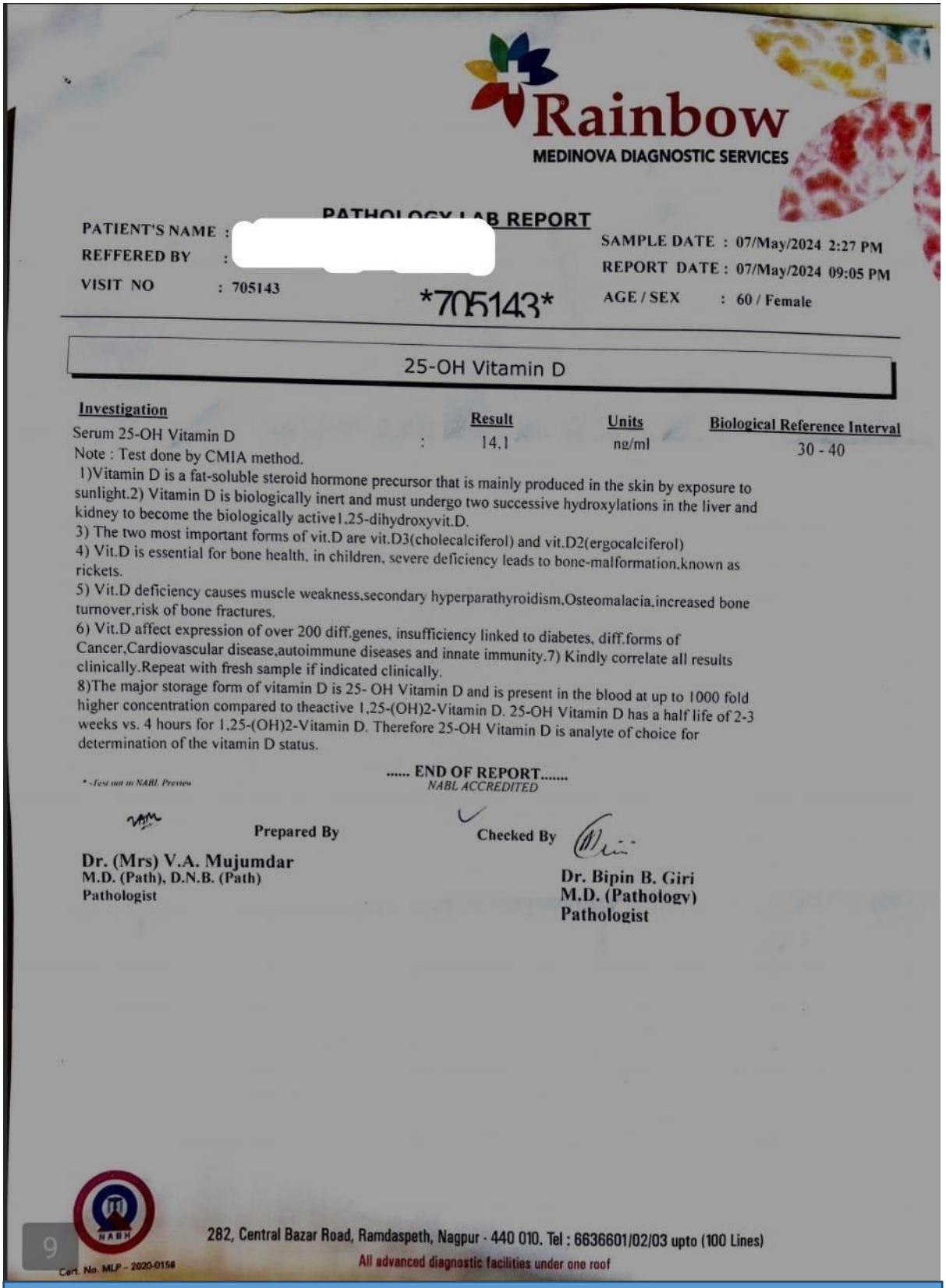
Figure 8: Serum Calcium level



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MEDINOVA DIAGNOSTIC SERVICES

PATHOLOGY LAB REPORT

PATIENT'S NAME : [redacted]
REFFERED BY :
VISIT NO : 705143

705143

SAMPLE DATE : 07/May/2024 2:27 PM
REPORT DATE : 07/May/2024 09:05 PM
AGE / SEX : 60 / Female

25-OH Vitamin D

Investigation		Result	Units	Biological Reference Interval
Serum 25-OH Vitamin D	:	14.1	ng/ml	30 - 40

Note : Test done by CMIA method.

1)Vitamin D is a fat-soluble steroid hormone precursor that is mainly produced in the skin by exposure to sunlight.2) Vitamin D is biologically inert and must undergo two successive hydroxylations in the liver and kidney to become the biologically active1,25-dihydroxyvit.D.
3) The two most important forms of vit.D are vit.D3(cholecalciferol) and vit.D2(ergocalciferol)
4) Vit.D is essential for bone health, in children, severe deficiency leads to bone-malformation,known as rickets.
5) Vit.D deficiency causes muscle weakness,secondary hyperparathyroidism,Osteomalacia,increased bone turnover,risk of bone fractures.
6) Vit.D affect expression of over 200 diff.genes, insufficiency linked to diabetes, diff.forms of Cancer,Cardiovascular disease,autoimmune diseases and innate immunity.7) Kindly correlate all results clinically.Repeat with fresh sample if indicated clinically.
8)The major storage form of vitamin D is 25- OH Vitamin D and is present in the blood at up to 1000 fold higher concentration compared to theactive 1,25-(OH)2-Vitamin D. 25-OH Vitamin D has a half life of 2-3 weeks vs. 4 hours for 1,25-(OH)2-Vitamin D. Therefore 25-OH Vitamin D is analyte of choice for determination of the vitamin D status.

* -Test not in NABL Preview

..... END OF REPORT.....
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Figure 9: Serum Vit D3 level

Figure 10: SLR LEFT LEG

Figure 11: SLR RIGHT LEG

Figure 12: VIDDHAKARMA LEFT LEG (4 ANGULA ABOVE INDRABASTI MARMA)

Figure 13: VIDD

Discussion:

Mode of action of treatment: All shaman drugs possessing *Snigdh, Tikta, Katu, and Vaatshamak* qualities, aid in calming the body's vitiated *Vata*. The *Bhaishjyaratnavali* mentions *Paarijatak Ganavati* as *Gridhrasi'srogadhikar.*[8] *Basti*[9] is the main *chikitsa* for all *Vatavikara. Viddhakarma* is a para-surgical practice under *Siravedh* that *Sushruta* has recognized as being superior to other forms of treatment in *Gridhrasi*.[10,11]

It makes a noteworthy contribution to the therapy as well. A month of additional follow-up will be conducted further to rule out recurrence. It was advised to the patient not to lift large objects and not to bend straight from the waist. After completion of 30 days therapy clinical evaluation was done which showed significant improvement in the patient's condition. Pain, stiffness, tingling, and numbness were remarkably reduced. The patient was able to walk properly without pain and was able to do her normal routine work without agony. Forward bending, and lateral bending were also improved. Significant improvements in objective criteria like the Straight Leg Raising test, Schober's test, and Bowstring test were found. Remarkable improvements in subjective criteria like *Ruk, Tod, Stambha, Muhuspandan, Tandra, and Arochaka* were also observed. Before treatment and after treatment improvement was mentioned in detail in Table no 5.

Table 5- BT and AT Outcome Comparison

		Observed score	
Subjective Parameters[12]		Before Treatment	After Treatment
Ruk		3	0
Tod		3	0
Stambh		3	0
Muhuspandan		3	1
Tandra		3	1
Arochak		0	0
Gaurav		3	1
Objective Parameters[12]			
SLR	lt	30 degrees	75 degrees
	rt	50 degrees	80 degrees
Schober's test		4.6 cm	5.5 cm
Bowstring		Positive	negative

test			

Conclusion:

1. *Ayurveda* treatment is significantly effective in *Gridhrasi* patients.
2. Treatment is cost-effective and easy to implement.
3. No side effects were seen during and after the treatment.
   Therefore, we can say that the above-mentioned treatment can be useful during the treatment of *Gridhrasi* patients. Further research on a large number of patients is also needed to confirm the effectiveness of the above Ayurveda regimen in *Gridhrasi* patients.

Patient Perspective: The patient experienced very well and was free from pain. She is now able to do her regular activities without pain.

Source of fund: (if any) None

Conflict of Interest: None

Ethical clearance: Ethical clearance was taken from IEC MGACH& RC, DMIHER, Wardha.

Written Informed Consent: Informed consent was obtained from the patient.

Registration Date: 4-Oct-2022

Authors' contribution:

Owner of the study's ideas and data collection: SN

Research design: SM & SN

Composing and sending the paper: SN

Final draft editing and approval: SM

Reporting guidelines: https://doi.org/10.5281/zenodo.11442508

References:

1. Braunwald E. 15th ed. New York: McGraw-Hil Medical Publishing Division; 2001. Harrison: Principles of Internal Medicines; p. 73.

2. Charaka Samhita, Shastri SN. Varanasi: Chaukhambha Academy; 1998. Vidyotnini hindi commentary; pp. 54–6.
3. Bakhashi B, Gupta SK, Rajagopala M, Bhuyan C. A comparative study of Agni karma with Lauha, Tamra, and PanchadhatuShalakas in Gridhrasi (Sciatica). Ayu. 2010 Apr;31(2):240-4. doi: 10.4103/0974-8520.72408. PMID: 22131718; PMCID: PMC3215372.
4. Agnivesha, Charaka Samhita, Ayurveda DeepikaCommentary of Chakrapani, edited by; Vaidya YadavjiTrikamji Acharya, Chaukhamba Orientalia, Varanasi,reprint-2015; Chikitsa Sthana, chapter-28, Verse-84,pp-738; pg-620)

5. Sapana S. Dakhole, Brijesh R. Mishra, Harish J. Purohit, Systemic review on Gridhrasi management by Parijata (Nyctanthus arbortristis). J Ayu Int Med Sci. 2022;7(7):138-141.

6. Rai, Mayank & Misar, Sadhana & Gamne, Reeya. (2024). Comparative evaluation of the efficacy of Trayodashang Guggul versus Rasona Pinda as an adjuvant with Katibasti in the management of Grudhrasi (Sciatica): A randomized controlled trial. F1000Research. 13. 9. 10.12688/f1000research.139568.1.

7. Vruddha Vagabhata, Asthang samgrahawith sasilekha commentary by Indu, edited by Dr. Shiva Prasad Sharma, Sutrasthana 28/12, Varanasi: Chaukhambha Krishna-das Academy; 2008; p 214
8. Shri Govind Dasji, Bhaishajyaratnavali (Vidyotini commentary). Bhisgranthna Shri Bramhashankar Mishra, editor.1st ed. Varanasi: Chaukamba Publishers; 2006. 26th chapter47.
9. Kalburgi, Nikhita & Rodd, Madhuri & Patil, Vaidya Vasant. (2022). A systematic review on the efficacy of different niruha basti in gridhrasi. 10. 51-63.
10. Ambikadutta Shastri., editor. 12th ed. Varanasi: Chaukhamba Surbharti Prakashana; 2001. Sushruta, Sushruta Samhita (Part-I), Sutra Sthana, Agnikarmavidhi Adhyaya, 12/3. 38.
11. Sushruta Samhita (Part-I), Sharira Sthana, Shiravyadha Vidhi Adhyaya, 8/23. 67.
12. S. Triveni Manju, Thesis entitled “An Open-Label Double Arm Randomised Study To Compare The Effect Of Kati Basti With Moorchita Taila And Kati Basti With Erandakarkati Taila In Gridhrasi Vis-à-vis Sciatica”; 2019-22.