

MANAGEMENT OF TRAUMATIC QUADRIPARESIS (ABHIGHĀTAJA SARVĀNGA VĀTA) WITH PAÑCAKARMA THERAPIES - A CASE STUDYK.V.Nalini¹, V. Lakshmana Prasad²,Final year PG Scholar, Department of Panchakarma, S.V.Ayurvedic College, Tirupati
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**ABSTRACT**

Globally, 15 million people are living with spinal injuries. Spinal injury Percentage of total Neurological disorders disease burden in India is 1.9. The following is a case managed in Dept of *Pañchakarma*, S.V. Ayurvedic Hospital, Tirupati, depicting the success of various *Pañchakarma* therapies. A 65-year-old male patient with a chief complaint of loss of sensations from below the neck and weakness in both upper and lower limbs, giving the history of a road traffic accident in the year 2015 and underwent Microscopic anterior cervical C3 - C4 discectomy and fusion surgery after the accident. He has been treated with *Sarvāṅga Abhyāṅga* and *Nāḍī swedam* for 3 days, *Mātrāvasti* with *Nirguṇḍītailam* for 7 days, *Kālavasti* with *Vājigandhādiyoga* for *Āsthāpana* and *Nirguṇḍī tailam* for *Anuvāsana* for 16 days. The ASIA scale score recorded at the outset was 78/324, Which improved to 205/324 after the completion of therapies. The patient ultimately regained his sensations and had moderate improvement in motor power of muscles, which was reflected in the ASIA scale. *Sarvāṅga Abhyāṅga* and *Nāḍī swedam* administered initially have been considered as the first-line therapies in the management of vitiated *Vāta*. The *Mātrāvasti* administered afterwards has tremendous *Vātahara* property. The *Vājigandhādi yoga*, which has been explained in *Vaṅgasena* for the management of *Gṛdhrasīvāta*, is tried here in *Kālavasti* format. The above-stated *Pañchakarma* therapies have shown significant amelioration in both sensory and motor deficits. More over they proved safe during the entire length of course.

Keywords: *Abhighātaja Sarvāṅgavāta, Sarvāṅga Abhyāṅga and Nāḍī sweda, Mātrā vasti, vājigandhādi vasti.*

INTRODUCTION

Globally, 15 million people are living with spinal injury¹. There were 0.9 million cases of incidents and 20.6 million prevalent cases of SCI in 2019. Spinal injury Percentage of total Neurological disorders disease burden in India is 1.9. Traumatic SCIs from falls and road traffic accidents are the leading cause of SCI, followed by violence (including self-harm and attempted suicide) and work or sports-related injuries.

Quadriplegia refers to weakness of the arms and legs caused by Neurological damage associated with either compressive cervical myelopathy or trauma. Quadriplegia is associated with high-level spinal cord injuries, i.e., damage to the cervical region of the spinal cord. Usually, they experience chronic pain along with muscle atrophy, loss of sensation and loss of movement below the site of injury, spasticity, lack of control over bladder and bowel function, gait, posture, balance may also be affected. They may develop respiratory complications, autonomic dysreflexia, deep vein thrombosis, osteoporosis and decubitus ulcers as secondary life-threatening complications. The management of spinal injury cases is a big challenge and needs a multidisciplinary approach to combat their disability and improve their quality of life².

This condition in *Āyurveda* is called *Sarvāṅgavāta*, which can be considered as *Nānātmaja Vātavyādhis* described by *Caraka*³. In this particular case, the cause is a road traffic accident. So, it comes under the spectrum of *Abhighātaja Sarvāṅgavāta*. The patient has been treated with *Sarvāṅga Abhyāṅga & Nāḍī Sweda, Nirūha vasti* along with *Anuvāsana vasti* as per the line of treatment quoted for *Sarvāṅga Vātavyādi* by *Caraka*⁴. To assess the improvement, we used the ASIA scale⁵. The patient's condition improved markedly and is reflected in the ASIA scale.

CASE STUDY

The present case study is of a 65-year-old male patient who was diagnosed with Traumatic Quadriplegia,

approached the *Pañcakarma* OPD and was admitted to IPD (IP.NO1745) of S.V. Ayurvedic Hospital.

CHIEF COMPLAINT :

Complaint of weakness in all the limbs and loss of sensation below the neck for 9 years.

ASSOCIATED complaint :

Complain of numbness, heaviness and mild to moderate pain.

HISTORY OF PRESENT ILLNESS :

The patient was asymptomatic 9 years ago. One day he met with a road accident while the cycle on which he was moving underwent a collision with a car. He was unable to get up and became unconscious. Immediately, he was taken to a nearby general hospital. In the hospital, they diagnosed cervical spine injury (C3-C4 cord injury with myelomalacia) after seeing the MRI scan and gave conservative treatment. After 15 days, he developed severe neck pain, paresthesia all over the limbs, giddiness, and headache. Then, they advised him to undergo surgery. Immediately, it was surgically treated with C3-C4 discectomy and fusion. After surgery, he regained consciousness but developed Weakness in both upper limbs and lower limbs, lost his sensations below the neck, and lost control over his bowel and bladder. After 45 days, he could feel the sensations of his bowel and bladder. After 18 months of surgery, the Patient started walking with support, but the loss of sensation below the neck continued. After 9 years, the patient came to S.V. Ayurvedic Hospital and was admitted for Ayurvedic treatment.

On examination

At the time of admission, the patient was able to walk and could do his activities of daily living very slowly.

Sensory examination: Before treatment

Touch:	Absent below C7 vertebra
Pain :	Absent below the C7 vertebra
Temperature:	Absent below C7 vertebra
Pressure:	Absent below the C7 vertebra

Table no.1 Power of different groups of muscles before treatment

S.NO	Group of muscles	Right	Left:
1	Elbow flexion	-4	-4
2	Elbow extension	-4	-4
3	Wrist flexion	0	-4
4	Wrist extension	0	-4
5	Finger abductors	0	-4
6	Hip flexors	-4	-4
7	Hip extensors	-4	-4
8	Knee flexors	-4	-4
9	Knee extensors	-4	-4
10	Ankle dorsi flexors	-4	-4
11	Ankle plantar flexors	-4	-4
12	Long toe extensors	-4	-4

Table 2 Deep tendon reflexes before treatment

S.NO	Deep tendon	Reflex response	
		Right	Left
1	Biceps	exaggerated	exaggerated
2	Triceps	exaggerated	exaggerated
3	Brachio radialis	Diminished	exaggerated
4	Knee jerk	exaggerated	exaggerated
5	Ankle jerk	exaggerated	exaggerated

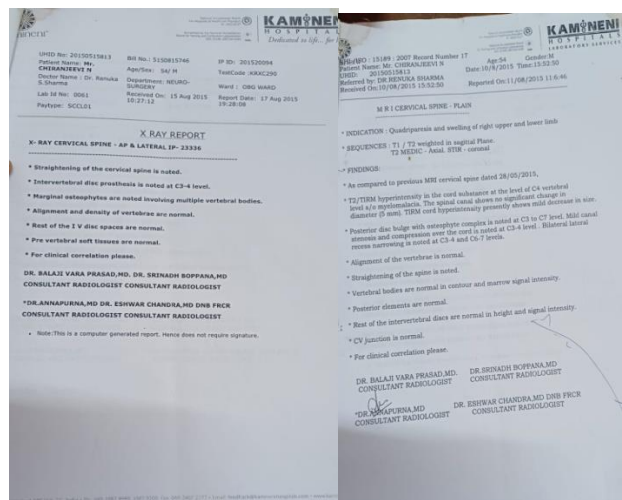
ASIA SCALE (American Spinal Injury Association Impairment Scale):

Before treatment: 84/324

Walking time:

Before treatment: 45sec/10mtrs on an average of 3 times without support

X-ray and MRI report of cervical spine Aug 2015



THE LINE OF TREATMENT ADMINISTERED

Table. No 3

S.NO	date	Treatment	Material used
1	12-07-2023 To 14-07-2023	<i>Sarvāṅga Abhyaṅga & Nādi sweda</i>	<i>Nirgundi taila and Balāmūla kwātha chūrna Nirgundi patra</i>
2.	15-07-2023 To 21-03-2023	<i>Matrā vasti</i>	<i>Nirgundi taila</i>
3.	22-03-2023 To 06-04-2023	<i>Vājigandhādi vasti in kālavasti format</i>	<i>Vājigandhādi yoga For kashāya vasti Nirgunditaila for Anuvāsana vasti</i>

Sarvāṅga abhyaṅga : *Nirguṇḍī tailam*
Nāḍī sweda : *Balāmūla kwātha churna &
Nirguṇḍīpatra*
Mātravasti: *Nirguṇḍī tailam : 75 ml
Saindava lavaṇa: 3gms
Śatapuṣpa : 3gms*
Vājigandhādivasti: *Vājigandhādi kwātha 250ml
Eraṇḍa taila -100ml
Śatapuṣpa – 25gms
Saindava lavaṇa -6gms*

The assessment criteria :

1. ASIA scale
2. Walking time

The ASIA exam is a standardised physical examination consisting of a.

1. Myotomal-based motor examination.
2. Dermatomal-based sensory examination, and
3. An anorectal examination.

The ASIA scale aims to provide detailed documentation of the SCI neurological level of injury and guides to determine if the SCI is complete or incomplete.

OBSERVATION and RESULTS :

The *Āyurvedic* therapy and oral medication yielded complete symptomatic relief from sensory deficit, stiffness and improved quality of life.

Sensory examination: After treatment

Touch: Intact below C7 vertebra
 Pain: Intact below C7 vertebra
 Temperature: Intact below C7 vertebra
 Pressure: Intact below C7 vertebra

Table 4 Power of different groups of muscles after treatment

S.NO	Group of muscles	Right	Left
1	Elbow flexion	5	5
2	Elbow extension	+4	5
3	Wrist flexion	0	+4
4	Wrist extension	0	+4
5	Finger abductors	0	+4
6	Hip flexors	+4	+4
7	Hip extensors	+4	+4
8	Knee flexors	5	5
9	Knee extensors	+4	+4
10	Ankle dorsi flexors	5	5

11	Ankle plantar flexors	-4	+4
12	Long toe extensors	+4	5

Deep tendon reflex: There was no difference before and after treatment in deep tendon reflexes.

ASIA SCALE: 259/324

Walking time: 23sec/10 mts on an average of three times without support.

The assessment of sensory and motor scores before treatment and after treatment is

ASIA SCALE (American Spinal Injury Association Impairment Scale)

ASIA Scale	BT		LT		AT		LT		Motor score	BT		AT		
	RT	LT	RT	LT	RT	LT	RT	LT		Rt	Lt	Rt	Lt	
sensory pc	LTC	PP	LTC	PP	LTC	PP	LTC	PP						
C2	2	2	2	2	2	2	2	2	2	2	4	4	5	5
C3	2	2	2	2	2	2	2	2	2	2	0	4	0	5
C4	2	2	2	2	2	2	2	2	2	2	4	4	5	5
C5	2	2	2	2	2	2	2	2	2	2	0	4	0	5
C6	2	2	2	2	2	2	2	2	2	2	0	4	0	5
C7	2	2	2	2	2	2	2	2	2	2	4	4	5	5
C8	0	0	0	2	2	2	2	2	2	2	4	4	5	5
T1	0	0	0	0	2	2	2	2	2	2	4	4	5	5
T2	0	0	0	0	2	2	2	2	2	2	4	4	5	5
T3	0	0	0	0	2	2	2	2	2	2	4	4	5	5
T4	0	0	0	0	2	2	2	2	2	2				
T5	0	0	0	0	2	2	2	2	2	2	MOTOR score			
T6	0	0	0	0	2	2	2	2	2	2	ULM BT=8/25			
T7	0	0	0	0	2	2	2	2	2	2	AT=10/25			
T8	0	0	0	0	2	2	2	2	2	2	LLM BT=20/25			
T9	0	0	0	0	2	2	2	2	2	2	AT=25/25			
T10	0	0	0	0	2	2	2	2	2	2	Sensory: BT		AT	
T11	0	0	0	0	2	2	2	2	2	2	14	56		
T12	0	0	0	0	2	2	2	2	2	2	14	56		
L1	0	0	0	0	2	2	2	2	2	2	14	56		
L2	0	0	0	0	2	2	2	2	2	2				
L3	0	0	0	0	2	2	2	2	2	2				
L4	0	0	0	0	2	2	2	2	2	2				
L5	0	0	0	0	2	2	2	2	2	2				
S1	0	0	0	0	2	2	2	2	2	2	VAC=yes			
S2	0	0	0	0	2	2	2	2	2	2	DAC=yes			
S3	0	0	0	0	2	2	2	2	2	2	Total			
S4-5	2	2	2	2	2	2	2	2	2	2	BT		AT	
											84/324		259/324	
Total	14	14	14	14	56	56	56	56						

DISCUSSION

The patient's chief complaint is loss of sensation all over the body from below the 7th cervical vertebra and weakness in all the limbs. The case is assessed by using the ASIA scale. Upon examination, the level of injury in this patient was C3-C4. The zone of hyperesthesia is C4-C7. The type of spinal injury is incomplete, as voluntary anal contraction and deep anal contractions are intact. Out of 28 dermatomes, the sensory function is intact only in 7 dermatomes, i.e., C2-C7 and S4-S5 before treatment. The ASIA Scale score was 83/324 before treatment.

As the first line of *Vātahara Chikitsa*, the patient was treated with *Sarvāṅga Abhyaṅga & Nādi sweda* for three consecutive days. Skin is the body's largest organ, accounting for 15% of total body weight. The *Sarvāṅga Abhyaṅga*⁶ & *Nādi sweda*⁷ thus effectively mitigate the *Vāta doṣa*. As per *Āyurveda*, skin is the seat for *sparśanendriya* or tactile sensation, predominantly having *Vāyu mahabhūta*⁶. *Vasti* is considered the prime and superior mode of treatment among the *Pañchakarma* therapies and is contemplated as *Ardha chikitsa*⁸. Accordingly, *Mātra vasti* with *Nirgundi tailam*⁹ was initially given for seven consecutive days, followed by the *Vājigandhādi yoga*¹⁰, which has

been explained in *Vaṅgasena* for the management of *Gr̥dhrasīvāta*⁷ is tried here in a *kālavasti format*.

This combination of *Nirgundī taila Anuvāsana* and *Vājigandhādi Niruha*, which has *Vātahara property*, has yielded a good result subjectively and objectively. Subjectively, the patient regained sensation ultimately; objectively, the ASIA Scale score increased significantly from 84/324 to 259/324.

CONCLUSION

Based on the results obtained, it can be concluded that *Vājigandhādi yoga* in *kālavasti* format can be used as an effective treatment for Traumatic Quadriplegia (*Abhigāṭaja Sarvāṅgavāta*). However, further studies in a larger number of patients are needed to evaluate the efficacy of the above combination.

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