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AYURVEDIC MANAGEMENT OF CERVICAL MYELOPATHY- A CASE REPORT

Ayurveda

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ABSTRACT

Introduction: Cervical Myelopathy is a neurological impairment caused by compression of the cervical spinal cord mostly due to degenerative cervical spondylosis. Axial imaging is the modality for diagnosis which shows myelomalacia and focal cord atrophy. **Main clinical findings:** A 58 years old female with complaints of weakness of both legs since 6 months which aggravated past 2 months, associated with numbness of both soles and palms came to OPD of our hospital. **Diagnosis:** She was diagnosed and treated for cervical myelopathy. Depending on the clinical signs and symptoms of the patient the condition can be correlated to Khalli (Kaphavrutha vyana and raktavritavata). **Intervention:** The patient was managed with internal and external medications including ksharavasthi. **Outcome:** The treatment showed marked improvement in gait, pain, numbness in both extremities and urinary incontinence. **Conclusion:** This article is an attempt to shed light on the management of cervical myelopathy and to explore the scope of further study.

KEYWORDS

Cervical myelopathy, kaphavrutha vata, khalli, kshara vasthi

INTRODUCTION

Cervical myelopathy otherwise called cervical spondylotic myelopathy is a common spinal cord disorder.[1] It is estimated to affect 5% of people older than 40 years and incidence is expected to rise in ageing populations.[2] Although myelopathy is common, it is often under-diagnosed or the diagnosis is delayed due to multifactorial reasons. Mainly the absence of diagnostic algorithm, poor awareness and subtle and non-specific symptoms like pain and numbness in limbs, poor coordination, imbalance and bladder problems that are often attributed to ageing. In Ayurveda this condition can be correlated to Khalli with two stages (Kaphavrutha vyana and raktavritha vata.). The symptoms of kaphavrutha vata and raktaavrita vata are adhika gati sanga, anga guruta, sandhi asthi ruja, shotha and arti. Treatment was planned considering this.

Uniqueness Of The Case

1. Interpretation of cervical myelopathy in Ayurveda and its management.
2. Ksharavasthi and its effectiveness in the management of Cervical Myelopathy.

CASE REPORT

1. A 58 years old female hindu patient with middle socioeconomic status who is not a k/c/o DM and HTN was apparently well 4 years back. Within a course of time she developed low back pain radiating to bilateral lower limbs with numbness in bilateral arms and soles along with intense pain starting from the nape of the neck and radiating to forearm. The above complaints aggravated over the last three months. The patient has a history of trauma by vehicle accident before 12 years for which she underwent treatment and got relief. Later the above symptoms gradually returned aggressively before 4 years for which she consulted a private clinic wherein she was prescribed anti-inflammatory medications.
2. On 10th October 2022 she underwent consultation from neurosurgery department at JIPMER Hospital Pondicherry owing to aggravation of the above symptoms along with complaints of urinary urgency and feeling of loss of sensation in both the legs. She was advised to go for a laminectomy for the same and was advised to continue analgesics.
3. On 9th November 2022 she visited our OPD at Sri Jayendra Saraswathi Ayurveda College and Hospital with the above complaints where she was prescribed internal medications. On her second visit to the hospital which was on 23rd November 2022 there was some improvements in her condition and she was advised to take admission in our hospital for further management.

Treatment History

1. Tab. Vertin 8mg 1-0-1 2.Tab. Ultracet 1-0-1 3.Cap. Omez 20 mg 1-0-0 4.Tablet Gabaneuron- NT 0-0-1/2

Surgical History: Nothing relevant
Genetic Information: Nothing relevant

Personal History

Her Appetite is unaltered, is of mixed diet and regular bowel with normal consistency, and having urgency for micturition.
Habits: Nothing relevant

General Examination

The patient was moderately nourished female. Blood pressure: 130/80 mm/hg, Temperature: 98°F; Pulse: 82/min and Respiratory Rate: 16 cycles/min. On examination Pallor, icterus was absent. Central cyanosis, digital clubbing and local Lymph adenopathy was absent. General and localised oedema was absent.

Central Nervous System Examination

1. Higher mental function: Normal
2. Cranial nerves – NAD
3. Motor system -Muscle strength-Normal
4. Sensory nerves: Impaired

Ashtavidha Pareeksha

Nadi: Kaphavata, Mootram:Prabhoota ,Malam:Ama, Jihwa:Nirlipta, Shabda:Madhyama, Sparsha:Sheeta Drik:Madhyama Akriti:Madhyama
Srotopareeksha: Involved srotas are rasa,rakta,mamsa,asthi and majja

Diagnostic Assessment

According to the lakshanas and clinical features said in the classical texts of Ayurveda, diagnosis was made and in contemporary sciences diagnosis was made through MRI.

MRI Findings

Posterocentral disc herniation along with ossification of posterior longitudinal ligament at C3-C4,C4-C5,C5-C6,C6-C7. Cervical spondylosis, Spinal cord compression with focal cord atrophy/myelomalacia

Severity Of The Disease

According to the modified Japanese Orthopaedic Association score this case is of moderate Cervical Myelomalacia, and Nurick classification system for degenerative cervical myelopathy this is

grade-IV degenerative cervical myelopathy.[3]

Diagnosis: Cervical Myelopathy(Khalli –Kaphavrita vyana and Raktavrita vata)

Treatment Protocol

Vata vridhi occurs due to dhatukshaya or margavarodha.Here in this case gati of vata is obstructed by kapha and rakta.So treatment was planned accordingly. [Tables 1-3]

Internal Medications

1. Astavargam kashayam 20ml-0-0+40ml warm water (before food)
2. Sahacharadi kashayam 0-0-20ml+40ml warm water (before food)
3. Tab Nurall 1-0-1 (after food)
4. Triphala Choornam 1 tsp at bed time with hot water

Panchakarma Procedures (Table No:1)

PROCEDURE	DRUG	DURATION
Udwartanam	Udwartana choornam	5 days
Kashaya Dhara	Dasamoolam kashayam	5 days
Matra Vasti	Guggulutiktakam ghritam	7 days
Kshara vasti	Mentioned in table no(2)	2 days
Abhyangam and Nadi Sveda	Balaguloochyadi thailam	10 days
Ksheera Vasti	Balamula kashayam	3 days
Greeva Vasti	Karpasathyadi thailam Karpooradi thailam	6 days

Ingredients of Kshara Vasthi (Table No:2)

KSHARA VASTHI INGREDIENTS
Saindhavam-10gms
Satapushpa-10gms
Gomutra-100ml
Dasamoola kashayam-300ml
Chincha-100ml
Gudam-100 ml

Modified Vasthi Schedule (Table No:3)

28/11	29/11	30/11	1/12	2/12	3/12	4/12	5/12	6/12	7/12
Kshara vasthi	Matra vasthi	Kshara vasthi	Matra vasthi	Kshera vasthi	Matra vasthi	Kshera Vasthi	Matra vasthi	Kshera vasthi	Matra vasthi

Outcome Of The Treatment

The symptoms of the patient improved before and after treatment.The condition of the patient was evaluated after each procedure and noted. (Tables 4 and 5)

Clinician Assessed Outcomes

1. Lhermittes sign-ve
2. Hoffmans sign-+ve

Patient Assessed Outcomes

1. The pain in low back radiating to both the lower limb was absent
2. Pain in the nape of the neck radiating to right hand reduced, radiation is till mid upper arm with reduced intensity
3. No numbness over the palms and soles
4. Able to control micturition reflex and urgency reduced.

Examinations Done Before And After Treatment (Table No:4)

EXAMINATIONS	BEFORE TREATMENT	AFTER TREATMENT
Finger nose test	Positive	Negative
Rapid alternating movements	Positive	Negative
Rhombergs sign	Positive	Negative
Lhermittes sign	Positive	Negative
Hoffmann's sign	Positive	Positive
Gait	Broadbased gait	Normal
Babinskys reflex	Positive	Negative
Patellar tendon reflex	Rt-3+, lt-3+	Rt-2+,lt-2+

Timeline Of Events During The Period Of Admission(Table No:5)

DATE	PATIENT CONDITION
23/11/2022	Pain over nape of the neck radiating to right lower limb. Numbness over palms and soles. Pain in low back radiating to lower limb.
24/11/2022	Pain over nape of the neck radiating to right lower limb .Numbness over palms and soles. Pain in low back radiating to lower limb
25/11/2022	Pain over nape of the neck radiating to right lower limb reduced.Numbness over palms and soles reduced.Pain in low back radiating to lower limb reduced.
26/11/2022	Reduced sleep,feverishness,belching
27/11/2022	No Numbness in bilateral palms and soles. Intermittent pain in the nape of the neck, lower occipital region radiating to right hand
28/11/2022	Intermittent pain in the nape of the neck, lower occipital region radiating to right hand
29/11/2022	Pain in nape of neck and right hand.Generalised body weakness after kshara vasthi administration.
30/11/2022	Pain in nape of neck and right hand,No numbness in bilateral palms and soles.
1/12/2022	Pain in nape of neck and right hand reduced,No numbness in bilateral palms and soles
2/12/2022	Numbness in right upper limb,Pain in nape of neck reduced.
3/12/2022	Numbness in right upper limb reduced.Pain in nape of neck reduced.
4/12/2022	Numbness in right upper limb reduced.Pain in nape of neck reduced.
5/12/2022	Numbness in right upper limb reduced.Pain in nape of neck reduced.
6/12/2022	No Numbness in right upper limb.Pain in nape of neck reduced.
7/12/2022	No Numbness in right upper limb.Pain in nape of neck reduced.

DISCUSSION

Due to the kaphakara nidana guru and snigdha and seeta guna of kapha dosa is increased leading to skannatvam which can be correlated to the ossification of posterolateral ligament. There is ischaemia or cord atrophy in this patient which may be due to decreased blood supply to the region marking rakta kshaya. Raktavrita vata can be considered as a preceding stage of mamsavrita vata or called suptavata.[4]The cardinal features of raktavritavata supti, svayadhu and arti are present in this patient. Patient was treated with principles of kapha avarana vyana vata and rakta avrita vata. Astavargam kashayam[5] is having avaranaghna properties and it pacifies vata. Sahacharadi kashayam corrects gati, given internally as the patient has imbalance in walking.

Yogaraja guggulu[6] is vedana stapaka, shothahara and kaphavatahara.[7] Tab Nurall having main content of Brihat Vata Chintamani 75 mg (BVC) and Kapikachu 50 mg is indicated in neuropathies. Triphala choornam was administered for vatanulomana. Udwartana has a property of reducing vitiated kapha by its rooksha and aavaranaghna properties. Matravasti is said to be Balya, Brimhana and Vatarogahara.[8] Matravasthi was admistered with Guggulutiktakam ghritam[9] and Dhanvantaram Mezhuku pakam[10] along with saindhava and satapushpa. Guggulu tiktaka ghritam is indicated in asthi-majjagata vata and in raktavrita vata.

Abhyangam with swedana and vasti is capable of removing aavarana and srotorodha. Abhyanga was done with Balaguluchyadi thailam and nadisvedam with dashamoola kashayam. Balaguluchyadi thaila [11] mentioned in vatarakta chikitsa. Dasamoola kashaya[12] is having ama pachana, tridoshahara and jwarahara properties. Drava sveda was chosen as the condition involves rasa, rakta mamsa and asthi dhatu. Acharya Chakrapani has mentioned Kshara vasti in Niruha vasti Adhikara. Kshara basti is effective in Kaphaja, Medoja and Amaja conditions like Amavata, Kaphaavruta Vata, Kapha Samsarga Vata, Sthoulya, Dhamanipratichaya etc.[13]

Ksheera vasti was planned as the next line of treatment as it pacify vata and acts as brihmana. Ksheera is capable of strengthening the bone and reducing the significant softening of skeleton, which is the characteristic histological feature of myelomalacia which is a feature in cervical myelopathy. Recent studies have revealed that Balamoola has property of anti-oxidant, free-radical scavenger and RANKL receptor signaling pathways thereby reducing the activity of osteoclast and bone resorption. [14]

Greeva vasthi [15] with Karpasasthyadi thailam[16] and Karpooradi thailam[17] was administered and pratimarsha nasyam of Dhanvantaram

101 Avarthi thailam.[18] Snehana provides nourishment to the sharira dhatu and swedana relaxes the muscles, increases the blood flow and reduces the inflammations.

CONCLUSION

Cervical Myelopathy can be interpreted as Khalli (Kaphavritha vyana and Raktavrita vata).In the first stage Kaphavarana vata chikitsa is adopted followed by raktavrita vata chikitsa. The treatment of choice in contemporary medicine includes laminectomy, spondylectomy, corticosteroids which are costly and have poor prognosis.In this light Ayurveda can help in improving the quality of life and making people independent for routine activities thereby reducing complications.

Declaration Of Patient Consent

The authors certify that they have obtained all patient consent forms. In the form the patient has given her consent for her images and other relevant clinical information to be used in the journal.

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