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Role of Panchakarma in Ayurvedic Management of Progressive Bulbar Palsy: A Case Report

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Abstract
Progressive Bulbar palsy (PBP) is a rare neurodegenerative disorder presenting with dysarthria, dysphagia , tongue muscle atrophy, sialorrhea and fasciculations. Ayurveda advocates a holistic and individualized approach, integrating Panchakarma and Shamana Chikitsa. A 56-year-old female presented with Slurred speech , unable to swallow/Eat ,excessive salivation for 2 years. From an Ayurvedic perspective, the condition was diagnosed as Vata vyadhi and managed with Sarvanga Abhayanga , Dashmoola Parishekha, Ksheeradhuma , Nasya , Gandhusha along with Shamana Chikitsa. The patient showed marked improvement in her symptoms, which was sustained through Shamana Oushadhi and regular follow-up. After one session of Ayurvedic therapy supported by outpatient care, notable progress was observed in speech clarity, and orientation. This case underscores the potential role of Ayurvedic management, particularly Panchakarma, in improving functional capacity and quality of life in PBP.

Keywords: Progressive Bulbar palsy, Panchakarma, Vata Vyadhi

INTRODUCTION

Progressive Bulbar palsy is a motor neuron disease that involves the brain stem. It contains lower motor neurons which are responsible for swallowing, speaking, chewing, and other functions.This disease is a variant of amyotrophic lateral sclerosis which is the most common motor neuron disease.The initial Symptom of MND is extremity weakness in about 70% of patients. The remaining 25 % present with dysarthria and dysphagia, and about 5 % of patients present with trunk or respiratory symptoms at the onset[1].

According to systematic analysis of the global burden of MND in 2016 , the worldwide all age prevalence was 4.5 (4.1-5.0) per 1,00,000 people and the all age incidence was 0.78 per 1,00,000 person[2].

The Main Symptoms include dysarthria, dysphagia , tongue muscle atrophy, sialorrhea and fasciculations. Conventional management is largely supportive and symptomatic, focusing on rehabilitation, nutritional support, and management of complications. However, prognosis often remains unsatisfactory, and quality of life is severely affected.

In Ayurveda, neurological disorders resembling bulbar palsy can be understood under the spectrum of Vatavyadhi, where aggravated Vata affects the functions of speech, swallowing, and neuromuscular

coordination[3]. Ayurveda offers therapeutic approaches like Snehana, Swedana, Basti, Nasya, and internal medications aimed at Vata shamana, nourishment of dhatus, and restoration of neuromuscular functions. Despite the availability of these modalities, there is limited documented evidence on the role of Ayurvedic management in bulbar palsy. Publishing individual case reports becomes crucial for:
Showcasing the potential of Ayurvedic interventions in rare neurological conditions.
Providing preliminary clinical evidence for integration with modern care. Offering insights into improving patient's quality of life where conventional medicine has limited scope.
Encouraging further clinical research and controlled trials in this underexplored area.
Hence, the present case report has been undertaken to highlight the effectiveness of Ayurvedic management in bulbar palsy and to provide evidence-based direction for future studies.

CASE PRESENTATION

Patient information:
A 56 year-old female patient visited the Outpatient Department of Shri Dharmasthala Manjunatheshwara Institute of Ayurveda and Hospital, Bengaluru on June 02,2025 with complaints of Slurred speech, unable to swallow/chew, excessive salivation for 2 years. The symptoms started 2 years before as slurring of speech, excessive salivation and other associated symptoms also developed gradually and progressed in severity in due course of time. She had no addictions, other significant comorbidities or family history.
Patient demographics are summarized in Table 1, Additional history was obtained with the patient's informed consent and is summarized in Table 2, Clinical examinations were performed In table 3,4,5,6 and 7 to arrive at a final diagnosis

Table 1: Demographic Details

Religion	Hindu
Occupation	Retired Teacher
Marital Status	Married
Socio-economic status	Middle Class

Table 2: Past medical history

Past Medical History	N/K/C/O- HTN,DM
Past Surgical History	No surgical history
Family History	Nothing Contributory
Personal History	Diet- Mixed Appetite- Reduced Sleep- Disturbed Micturation-4-5 times a day Bowel- Once daily

PHYSICAL EXAMINATION

Table no 03: Mental Status

Consciousness	Conscious
Emotion	Depression, Emotionally unstable
Behaviour	Good
Intelligence	Satisfactory
Handness	Good
Memory	Satisfactory
Lethargy	Present

Table no 04: Cranial Nerve Examination

Olfactory	Normal
Optic	Normal
Occulomotor	Normal
Trochlear	Normal
Trigeminal	Normal
Abducens	Normal
Facial	Twitching of Facial muscles
Vestibulocochlear	Normal
Glossopharyngeal	Gag reflex positive
Vagus	Slurred Speech , unable to sallow
Spinal accessory	Normal
Hypoglossal	Wasting of tongue , Slurred Speech

Table no 05 : Motor system Examination

Decubitus	Normal
Gait	Normal
Muscle Status, tone and power	Weakness in the tongue muscles , difficulty in speaking

Involuntary movements	Mild Tongue twitching present
Sensory System Examination	Intact
Reflexes	Gag Reflex was positive . Other Superficial ,deep and visceral reflexes were normal

Table no 06: Ashtasthana Pareeksha

Nadi	72/min
Mutra	Prakruta
Mala	Prakruta
Jihwa	Lipta
Shabda	VikrutaSlurred speech
Sparsha	Ruksha
Drik	Prakruta
Aakruthi	Krusha

Table no 07: Dashavidha Pareeksha

Prakruthi	Vata kapha
Vikruthi	Vata
Sara	Madhyama
Samhanana	Madhyama
Satmya	Ahara- Madhyama Vihara-Madhyama
Satva	Avara
Ahara Shakti (Abhyavaharana and jarana shakti)	Madhyama
Vyayama Shakti	Madhyama
Vaya	Madhyama

Pramana	Wt- 38kg Ht-145cm

INVESTIGATIONS

NCS AND EMG REPORT (March 31,2023) - B/L CPN axonal neuropathy. EMG showed neurogenic changes.

MRI BRAIN (August 23,2023) -

1. Small Vessels ischaemic changes in the bilateral peri - ventricular and deep white matter (Fazekas Grade 1)
2. Age related cerebral atrophic changes
3. No e/o acute infarct /hemorrhage at present
4. MRA shows, no significant abnormality
5. Mild mucosal thickening noted in right maxillary sinus
6. Rest of the visualized para nasal sinuses are normal. DNS to left side
7. Bilateral mastoid regions and CP angles are normal.

THERAPEUTIC INTERVENTION

The treatment plan was individualized, considering the Vyadhi Avastha, Rogi Bala, and the Roga Bala. A structured, integrative approach was implemented, combining Brumhana and Shamana therapies along with adjunct physiotherapy to enhance functional outcomes.

Table 8: Treatment regimen with duration

FROM	TO	EXTERNAL TREATMENT	INTERNAL TREATMENT
02/06/2025	**10/06/2025**	1. Sarvanga Abhyanga with Dhanwantara taila 2. Sarvanga Dashmoola Parishekha 3. Ksheeradhuma with balamoola Ksheerapaka 4. Nasya karma with MahaMasha taila 6/6 5. Shirodhara with Ksheerabala taila 6. Physiotherapy	1. Ekangaveera Rasa 2-0-2 Af 2. Rasa Rajeshwar Rasa 1-0-1 AF 3. Cruel Plus 1-0-1 AF 4. Ksheerabala 200mg capsule 2-0-2 5. Manas mitra vati 1-0-3 AF 6. Mashabaladi Kashaya 15ml-0-15ml with equal water AF **7.** Gandusha with Ksheerabala taila

OBSERVATION AND RESULT

The following assessments were made before and after treatments.

SYMPTOMS	BEFORE TREATMENT (Day 0)	AFTER TREATMENT (Day 10)
Speech	Difficulty to talk The listener cannot understand anything	Improvement in speech The listener can comprehend the words

Swallow	Difficulty to Swallow	Able to swallow without difficulty
Saliva	Dribbling of Saliva	No dribbling of saliva
Smile	Unable to Smile	Able to smile
Weight	38 Kg	40kg
Cheek blow	Unable to blow cheek	Able to blow a little
Eyebrow lift	Loss of horizontal lines on frontal belly	Improved
Glabellar tap	Negative	Negative
Gag Reflex	Weak	Mild Improvement
Tongue	Unable to Protrude	Unable to Protrude

DISCUSSION

Progressive bulbar palsy is a neurodegenerative disorder affecting lower motor neurons of the brainstem. It gradually leads to impairment of functions which are controlled by bulbar muscles resulting in symptoms like dysarthria ,dysphagia ,tongue muscle atrophy, fasciculations and excessive salivation.

From an Ayurvedic perspective, the clinical manifestation can be correlated with Vata Vyadhi. Symptoms such as impaired speech (Vak Vaikrita), difficulty in swallowing (Annabhilasha Hani / Annagrahana Klesha), muscle wasting (Mamsa Kshaya), fasciculations, and other neurological dysfunction indicate Vata Prakopa with Dhatu Kshaya, especially affecting Majja and Mamsa Dhatu. The chronic and degenerative nature of the disease further supports its classification under Dhatukshayajanya Vata Vyadhi. In the present case, the treatment approach was aimed at Vata Shamana, Brimhana, and Rasayana, along with strengthening the neuromuscular system. Panchakarma procedures such as Sarvanga Abhyanga and Dashamoola Parisheka help in pacifying aggravated Vata, improving circulation, and nourishing the tissues[4]. The external oleation therapy also promotes neuromuscular relaxation and improves functional mobility[5]

Ksheeradhuma therapy plays a vital role in disorders affecting the head and neck region. It provides nourishment and lubrication to the tissues of the oropharyngeal region, thereby supporting swallowing and speech functions. Dhuma of Ksheera and Balamoola Kashaya is one of the best Brimhana Chikitsa, which can normalise Bodhaka Kapha Vikruti[6]

Similarly, Nasya Karma, which is indicated in disorders above the clavicle (Urdhvajatrugata Vikara), facilitates drug delivery to the cranial region and helps in strengthening brain activities ,sensory and motor pathways related to speech and swallowing[7-8].

Gandusha was administered to improve oral muscle tone, reduce excessive salivation, and enhance neuromuscular coordination of the oral cavity. This therapy helps strengthen muscles of the tongue, palate, and throat, which are directly affected in bulbar palsy.[9]

Internal medications (Shamana Chikitsa) were prescribed to provide Vata pacification, neuroprotection, and tissue nourishment. Ayurvedic formulations possessing Balya, Brimhana, and Medhya properties help improve neuromuscular strength and slow down degenerative changes.

Continuous follow-up with Shamana Aushadhi helped sustain the improvement achieved through Panchakarma.

The observed improvement in speech clarity, swallowing ability, and orientation after the therapeutic intervention suggests that Ayurvedic management may help improve functional capacity and quality of life in patients with neurodegenerative disorders like PBP. Although the disease is progressive in nature, early and sustained Ayurvedic intervention focusing on Vata balancing and Dhatu nourishment may help delay progression and support neurological functions.

However, this is a single case report, and further clinical studies with larger sample sizes are required to establish the efficacy of Ayurvedic interventions in the management of Progressive Bulbar Palsy and related motor neuron disorders

CONCLUSION

This case report highlights the potential role of Ayurvedic management, particularly Panchakarma and Shamana Chikitsa, in improving the functional status and quality of life of a patient suffering from Progressive Bulbar Palsy. The integrative therapeutic approach focusing on Vata Shamana, Brimhana, and neuromuscular nourishment showed encouraging improvements in speech clarity, swallowing ability, excessive salivation, facial muscle functions, and overall well-being.

Therapies such as Sarvanga Abhyanga, Dashamoola Parisheka, Ksheeradhuma, Nasya Karma, and Gandusha, along with appropriate internal medications, appeared to support neuromuscular coordination and tissue nourishment. Although Progressive Bulbar Palsy is a progressive neurodegenerative disorder with limited conventional treatment options, early Ayurvedic intervention may help in slowing disease progression, reducing symptom severity, and enhancing daily functional capacity.

However, as this is a single case report, larger clinical studies and long-term follow-up are required to scientifically validate the efficacy of Ayurvedic interventions in Progressive Bulbar Palsy and other motor neuron diseases.

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