

CLINICAL IMPACT OF AYURVEDIC MANAGEMENT ON SPEECH AND LANGUAGE REHABILITATION: A CASE REPORT

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ABSTRACT :-

Pakshaghata is major cause of long term disability, resulting in deficits such as loss of voluntary function of half side of body and speech impairment due to vitiation of Vata Dosha. In Pakshagata, Vata Dosha affects the Sira and Snayu of the either side of body with Cheshta Nivrutti, Ruja, and Vaakstambha. In modern science, stroke or cerebrovascular accident cause loss of blood flow to part of brain, cause ischemia and weakness, sensation loss, difficulty in speech. Stroke is a major cause of hemiplegia. Because of similar symptoms, hemiplegia is co-related with Pakshaghata explained in Ayurveda. In the present case, patient presented with weakness in left half of the body, slurred speech has been treated with Panchakarma treatment modalities and internal medications. This case report focuses on the improvement in dysarthria after the Jihvanirlekhana.

KEYWORDS :- Pakshaghata, Hemiplegia, Stroke, Speech, Jihvanirlekhana.

INTRODUCTION :-

The 'movement' or 'Gati' in our body like movement of limbs, circulation of blood, control speech, singing, etc governed by Vata Dosha. The Vata Dosha covers sensory and motor response, physical and mental abilities in the body. Any imbalance in Vata Dosha leads to various Vata Vyadhi mentioned in Ayurveda and Pakshaghata is one among them.

Paksha denotes half of body and Aghata denotes loss of function. According to Acharya Charaka Pakshaghata is disease in which the Vata Dosha affects Sira and Snayu which results in Sankocha of Hasta or Paada (any limb) with Cheshta Nivrutti (loss of movement), Ruja (pain), and Vaak Stambha (speech difficulty) (8). According to Acharya Sushruta, vitiated Vata Dosha travels in Urdhva Adhoga Tiryak Dhamani result in Sandhi Bandhana Moksha (joint weakness) leads to loss of function in half side of body called Pakshaghata (9).

In modern science, here are numerous causes of hemiplegia cerebral tumor, meningitis, encephalitis, trauma, multiple sclerosis, cerebral abscess, cerebral vascular accidents – stroke can cause hemiplegia but stroke has more prevalence rate than other disorders. Stroke is defined as an acute focal neurological deficit resulting from cerebrovascular disease and lasting more than 24 hours (1). Stroke is fourth leading cause of death and fifth leading cause of disability in India (4).

CASE STUDY:-

Chief complaints:-

Patient complaints of left side upper and lower limb weakness and difficulty in speech since 1.5 years.

History of present illness:-

According to the information, patient was apparently normal 1.5 years ago, he developed weakness on left side of body associated with slurring of speech. He was admitted to an allopathic hospital, where he was diagnosed with Ischemic stroke. Following initial management, patient showed partial recovery but weakness persisted on left side of body with difficulty in speech for which patient presented to Khemdas Ayurved hospital for treatment.

History of past illness:-

Patient had suffered from stroke before 1.5 years

Patient was suffering from hypertension since 1.5 years and was on allopathy medication.

Drug history:-

Tab Rosuvastatin 20mg 1HS

Tab Metoprol 25mg 1 OD

Tab Telmisartan 40mg + hydrochlorothiazide 12.5 mg 1BD

Samanya Pariksha:-

- Appearance – Fair
- Pulse rate – 78/min
- Respiratory rate – 17/min
- Blood pressure - 140/80mmhg
- Temperature - Afebrile
- Edema - Absent
- Pallor - Absent
- Icterus - Absent
- Clubbing - Absent

Dashavidh Pariksha:-

- Prakruti – Vata-pittaja
- Vikruti – Vatapradhana - Kaphaja
- Sara – Madhyama
- Samhanana- Madhyama
- Praman – Madhyama
- Satmya – Madhyama
- Satva – Madhyama
- Aharashakti – Avara
- Vyayamashakti – Avara
- Vaya – Madhyama

MATERIALS AND METHODS:-

Jihwa Nirlekhana with Vacha Choorna and Yashtimadhu Choorna with the ratio of 1:5 grams.

SOP of Jihwa Nirlekhana:-

Patient was asked to take the mixture of Vacha and Yashtimadhu Choorna in pinch and asked to rub over the tongue for about 100 maatra kala. The saliva exudated should be spitted out and patient was not advised to take food or water for next 30 minutes. This procedure should be performed early morning in empty stomach after Dhanatadhavana.

RESULT:-

The patient showed noticeable improvement in speech after one month of treatment. The patient was unable to pronounce words clearly. Compared to prior to treatment condition, the patient able to pronounce words more clear, articulation improved and verbal expression became possible. Patient gained better control over speech, able to produce cleaner, more understandable words and sentences. Patient able to express thoughts, needs, ideas.

Table 1: Assessment of result

Parameter	Before treatment	After treatment
Speech clarity	Unclear speech and slurred	Speech clarity improved
Word pronunciation	Unable to pronounce words clearly	Able to pronounce words more clearly
Ability to speak words	Speak only few words with difficulty	Able to speak more words with less difficulty
Fluency of speech	Poor fluency	Moderate improvement in fluency

Verbal communication	Difficulty in communication	Verbal communication improved
Overall speech function	Severely impaired	Moderately improved

DISCUSSION:-

Jihva Nirlekhan is important daily regimen described in Ayurveda. It maintains oral hygiene, removes Mala of tongue, eliminates bad odour, plays role in stimulating tongue function and indirectly it supporting speech mechanism (7). It improves taste perception, removes sluggishness(9). In this case Jihva Nirlekhan is done with Vacha Choorna and Yashtimadhu Choorna.

Vacha mentioned as Vaak Prada and Swara Parda, indicating its beneficial effect on both it enhance speech and improve voice quality(2). Vacha is described as Medhya medicine, it has ability to improve memory, cognition, intelligence . Vacha has a unique power (Prabhav) as a nervine tonic. Acharya Charak classified Vacha as Lekhaniya and Sanjnasthapana mahakashaya(2)(5). It balance Vata Dosha and Kapha Dosha due to this qualities. Due to, the properties of Pramathi and Lekhana, it disintegrates Kleda, Sweda, Meda, Lasika and Vasa and eliminates Mala, Kapha and Pitta. Katu Rasa dilates all relevant channels, resulting in the Strotansi Vivrunoti effect(5)(6).

Acharya Charak described Yashtimadhu as Kanthya it has benefits in improving speech, effect on hoarseness of voice. Yashtimadhu is also Medhya medicine mentioned by Acharya Charak. Yashtimadhu mentioned as Swarya helps in improving voice clarity, quality and beneficial in condition of hoarseness of voice(2). Pakshaghata is Vata Vyadhi and Vata Dosha control the activity of mind. Due to, its Madhura, Snigdha, Guru Guna it pacifies Vata Dosha, it promote the function of mind and speech.

As modern point of view, the probable mechanism of action is the dorsal surface of tongue is lined by stratified squamous epithelium and surface contain numerous papillae and underlying rich vascular network. When a medicine is applied to tongue, the active constituents dissolve in saliva then come in contact with lingual mucosa. Drug absorption occurs through rapid passive diffusion, following diffusion drug molecules enter connective tissue and taken up by capillary network. This highly vascularized pathway allows medication to enter systemic circulation quickly, bypassing digestive system and liver(3)(10).

CONCLUSION:-

Pakshaghata is one among the Vata Vyadhi affecting loss of function of half side of body with difficulty in speech and co-related with hemiplegia due to, its similar symptoms. In this case patient presented with slurred speech and left side weakness of upper and lower limb. Patient is treated with Jihva Nirlekhana with Vacha Choorna and Yashtimadhu Choorna, in addition to Panchakarma treatment like Snehana, Swedana and other internal medications. It shows good result in improving speech in patient. Prior to treatment, patient speech is slurred and speak unclear words. after the treatment, speech clarity improved, and able to pronounce words more clearly. Jihva Nirlekhana serves as a simple, cost effective and helps to improve speech and voice quality in dysarthria condition.

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