

MANAGEMENT OF SPINOCEREBELLAR ATAXIA AND AYURVEDIC HOLISTIC  
APPROACH: A CASE STUDY.\*<sup>1</sup>Vd. Devanand R. Pawar and <sup>2</sup>Vd. Vijay R. Potdar:<sup>1</sup>PG Scholar, Rognidan Department, Govt. Ayurved College, Nanded.<sup>2</sup>Guide, Associate Professor, Dept. of Rognidan, Govt. Ayurved College Nanded.

\*Corresponding Author: Vd. Devanand R. Pawar

PG Scholar, Rognidan Department, Govt. Ayurved College, Nanded.

Article Received on 25/07/2019

Article Revised on 15/08/2019

Article Accepted on 05/09/2019

## ABSTRACT

The ataxias are heterogeneous group of inherited and acquired disorders, presenting either with pure ataxia or in association with other neurological and non-neurological features. The hereditary ataxias are a group of inherited disorders in which degenerative changes occur to varying extents in the cerebellum, brainstem, pyramidal tract and spinocerebellar tract. Spinocerebellar ataxia-2 is progressive degenerative genetic disease caused by an expanded (CAG) trinucleotide repetition on the chromosome 12 resulting in production of abnormal protein ataxin-2. There is no effective modern medicine for this disease because of disorder of gene. Ayurvedic management in this case reduce the symptoms and decrease the disability due to progressive nature of disease. *Ayurvedic* management in this case reduce the symptoms and decrease the disability due to progressive nature of disease. A 23 year old male patient was diagnosed for *vatvyadhi* (group of various neurological disorders) and was treated with *Shirodhara* (gently pouring the liquid over the head) with *Bramhitaila*, *Nasya* (administration of drug by the route of nasal cavity with *Balabilwa siddhaa grita* for 30 days, *Pizhichil*, *Salisasticpindasweda*, *Dashmoolaksirbasti*, *Merudandbasti*, along with combination of ayurvedic drug *Swarnamakshikbhasma 125 mg*, *Abhrakbhasma 125 mg*, *Guduchisatwa 1 gm* for 30 days. SARA score and clinical examination was used for assessment and rating of ataxia. Before treatment SARA score was 28. This reduce to 13 after treatment. Good relief of all sign and symptoms of spinocerebellar ataxia and improve quality of life in this case.

**KEYWORDS:** *Ayurveda*, *Dashshoolaksirbati*, *Pizhichil*, *Spinocerebellar ataxia-2*, *Vatvyadhi*.

## INTRODUCTION

Spinocerebellar ataxia-2 was first recognized in India in 1971 by Wadia and Swami, who were working on the early. Slowing of saccade movement associated to the cerebellar syndrome. The prevalence of SCA-2 is about 6 cases per 10000 people. The SCA-2 include following picture, ataxic gait, cerebellar dysarthria, dysmetria, dysdiadochokinesia, abnormal tandem stance. The mean age of onset is 33 years which varies from 3 to 79 years. Symptoms usually begins in the third or fourth decade of life. The first symptoms of disease is the gait ataxia, followed by cerebellar dysarthria. In *Ayurveda* this disease consider under the *nanatmaj vatvyadhi*.

Treatment planed for this disease must be *santarpana* because the nature of disease is degenerative and progressive. There is no modern treatment available for this disease so *ayurvedic* management is the only treatment for this disease.

## CASE REPORT

A 23 year old male patient came to opd of government

ayurvedic hospital nanded on 13-04-2019 with complaints of difficulty and unsteadiness in walking impaired speech, During normal conversation disturbance in speech. Patient is unable to stand for long time (Romberg test positive). Patient also suffered from insomnia and constipation. Due to progressive nature of the disease that first lower limb is affected and then upper limb. Patient decided to take ayurvedic treatment after no satisfactory effect of allopathic treatment. Patient was diagnosed for *vatvyadhi* (group of various neurological disorder) and was admitted in male medicine ward of government *ayurved* hospital nanded.

**Clinical findings:** On physical examination patient was found to be very anxious with decrease sleep loss of appetite, constipation, tongue clean skin rough. *Vatpittaprakriti* having *Madhyamasara* (medium purity of body tissue), *Madhyamasamhanan* (medium body built) *Madhyamasatwa* (medium mental strength). *Majjavaha* and *Asthivahastrotodusti* was more prominent. Power and tone of muscle was normal. Reflexes are normal except knee jerk, ankle jerk and planter jerk. Knee jerk and was hyperexaggerated, ankle

clonus was present and planter reflex was diminished. Cerebellar signs (such as finger nose test, dysdiadokinesia and trunkal ataxia) were positive. All other system examination were normal.

**Dignostic assessment:** Patient was known case of SCA-2. On MRI scan of brain and spinal cord, mid cerebral atrophy was revealed. All other haematological investigation were normal. Patient suffered from *Kampa* (tremors), *Anidra* (insomnia), *purusha- apravrti* (constipation), *Gadgadatva* (impaired speech). This disease is counted in *nanatmajvatvyadhi*. (diseases only due to vatadosha). *Ayurvedic* diagnosis of this disease was *vatvyadhi*.

**Intervention:** *Ayurvedic* management was directed to arrest various symptoms and complications of the disease. Two *Sasnehaniruhabasti* was given to the patient to treat constipation. From the next day patient was advice following oral *ayurvedic* drug which included, ombination of *Abhrakbhasma 125 mg, suvarnamakshikbhasma 125 mg, Guduchisatwa 1 gm* BD for 30 days with leukwarmwater. *Ayurvedic panchakarma* intervention were given which included *Sirodhara* (gently pouring the liquid over the head) with *Bramhitaila*, *Nasya* (administration of drug by the route of nasal cavity) with *Baladi grita*, *Pizhichil* or *kayaseka* (medicated oil massage by squeezing oil from cloth) by *Balaaswagandhaditaila*, *Salisasticpindasweada* (sudation with bolus of medicated cooked rice), *Dashmoolakshirbasti* all above karma for 30 days were given to patient.

**Follow up and outcome:** On april 13, 2019 the patient condition was assesd on the scale for assessment and rating of ataxia (SARA). After one month treatment patient was able to walk without support and rhomberg test negative after treatment. His speech was improved and easily understandable, anxiety also decrease, constipation was relieved. All investigation were normal. Patient and his relative were satisfied with *Ayurveda* treatment. In this way *Ayurveda* treatment also successfull in other similar diseases like SCA-2. after 15 days patient was adviced to follow up.

## DISCUSSION

The autosomal dominant cerebellar ataxias are clinically pathologically and genetically heterogenous group of neurodegenerative disorders caused by degeneration of cerebellum and its afferant and efferent connections. This is the degenerative disorder in which central nervous system, peripheral nerves muscles are affected. The causation factor and pathology in the disease is *Dhatukshayaj* (depletion of nutrition of tissue) that's why patient was dignosed for *vatvyadhi*. Patient was treated with *pancakarma* procedure along with combination of drug. Consiering the *dhatukhayasantarpana* in the form of modified *dashmoolksirbasti*.<sup>[1]</sup> (*dashmoola*, *bala,shatavari*, *kapikacchu*). In *ayurveda* brain is considered as *majjadharakala*,<sup>[2]</sup> unsteadiness and blurred

vision is describrd in *majjaprodoshajavikara*.<sup>[3]</sup> In *majjagatavikara tiktadi* and *madhur drug* indicated.<sup>[4]</sup> (*bala,shatavari*, *kapikacchu*). *Shirodhara* is indicated for *shirkampa* heaviness of the head and sleeplessness.<sup>[5]</sup> In this case *shirodhara* was done with *bramhi tail*. *Bramhitaila* is effective in stress disorders and improves the blood circulation. *Sastikshalipindasweda* has nourishing effect on muscles and peripheral nerves.<sup>[6]</sup> It is effective in peripheral neuropathy. *Pizhichil(kayaseka)* is the another karma which is combination of *snehana* and *swedana*. Benefits of *pizhichil* includes, improves overall blood circulation, strengthen immunity, reduce tension stress and anxiety, eliminates nervous weakness and disorders, completely rejuvenate body.<sup>[7]</sup> *Merudandabasti* with *murivenna tail* was given to the patient. *Merudand* means spine and *basti* means oil bath. *Murivenna taila* act as anti- arthritic analgesic. Indication of *merudandbasti* is spinal degenerative diseases. *Nasya* with *Balabilwasidhhataila*.<sup>[8]</sup> Medication that are administerd via the nasal passage affect the mind, *pranavata*, *tarpakakapha*, *sadhak pitta* and *majjadhatu*. Oral medication includes – *Abhrakbhasma* is an excellent cellular regeneration and nerve tonic. It can enhance blood circulation and improve the conductivity and tissue tone.<sup>[9]</sup> *Suwarnmakshik* has bitter, sweet principles aphrodisiac antiageing properties. It also act as *yogvahi* (act as catalyst), *Balya*, *Rasayana*.<sup>[10]</sup> *Guduchisatwa* act as immunity booster.<sup>[11]</sup> Good relief in *dysarthria*, *fasciculation*, *heaviness in eye*, *axial tremor* and *constipation* were observerd in this case. Gradual improvement was noticed in every week but assessment of *SARA* scoring were done only at the beginning and end of the treatment. *SARA* score in this patient was 28 before treatment which increased to 13 after treatment. Now the patient is under continuous follow up for observation. This case study shows that patient suffering with *SCA-2* can be treated with *ayurvedic* management with satisfactory outcome.

**SARA SCORE (Scale for the assessment and rating of ataxia)<sup>[12]</sup>**

	<b>Before Intervention</b>	<b>After intervention</b>
1) Gait(0-8)	6/8	3/8
2) Stance(0-6)	4/6	2/6
3) Sitting(0-4)	2/4	1/4
4) Speech(0-6)	4/6	2/6
5) Finger chase(0-4)	3/4	1/4
6) Nose finger test(0-4)	3/4	2/4
7) Fast alternating hand movement(0-4)	3/4	1/4
8) Heel shin slide(0-4)	3/4	1/4
	28/40	13/40

**CONCLUSION**

As observed data and gradation results reveals that, Patient of Spinocerebellar Ataxia significantly improving within a month. Well investigated well diagnosed patient of spinocerebellar ataxia had taken long term treatment from neurophysician as recorded previously Patient did not have satisfactory relief even as their case record of management. So in this case study shows that, Patient has got remarkable relief and improving progressively by adapting Ayurvedic Panchakarma with medicine especially.

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