

AYURVEDIC UNDERSTANDING AND MANAGEMENT OF FRIEDREICH ATAXIA - A CASE REPORT

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ABSTRACT

Friedreich Ataxia is a common inherited ataxia, having its onset around puberty. It is an example of a most common spinocerebellar dysfunction and is an autosomal recessive disease. A 13 year old female patient was admitted to S.D.M College of Ayurveda and Hospital, Hassan, Karnataka on 17/05/2018 with the confirmed diagnosis of Friedreich Ataxia. The main complaints were difficulty in walking, with loss of coordination, weakness in muscles of arms and legs, curvature of spine. She required a wheel chair and assistance for all activities of daily living. This condition can be understood as *Asthimajjagata vata* in *Samavastha*. After proper examination and clinical evaluation, *Samavata* and *Kevalavata* line of treatment was initiated. Significant improvement was noted. Observed a significant result in objective and subjective parameters after the course of treatment. The patient was discharged with oral medications, mainly *Brimhana* and *Rasayana oushadhi*.

Keywords: Friedreich Ataxia, *Asthimajjagata vata*, *Samavata*, *Brimhana*.

INTRODUCTION

Friedreich Ataxia is a chronic progressive ataxia. It is a common inherited ataxia, having its onset around puberty¹. It is an autosomal recessive disease and is an example of a most common spinocerebellar dysfunction. Friedreich ataxia locus lies in chromosome 9q13-q21.1². This disease characteristically manifests in siblings. The risk of being affected is as high as 1 in 4. It has the incidence in general population roughly around 1 in 50,000. Symptoms include ataxia, clumsiness, pes cavus, hammer toes, intention tremors, nystagmus, and other musculoskeletal

abnormalities like distal muscle weakness with progressive kyphoscoliosis³. Genetic mutation in the frataxin gene (FXN) presents in the chromosome 9 results in the manifestation of Friedreich Ataxia. Later, it results in the damage, as well as frequent fatigue due to effects on cellular metabolism.

In Ayurvedic perspective, this condition can be understood as *Asthimajjagata vata* in *Samavastha*. Here, *Kaphanubandhatha* can be seen, resulting in

lakshanas like *Sandhi shoola*, *Mamsa kshaya*, *Bala Kshaya*, *Mala sanga*, *Apakthi* and *Aalasya*.

CASE HISTORY:

1. At the age of 7 years, subject's mother had noticed that there was impairment in the gait of the child while walking and running. She thought that, it may be a common weakness developed during playing and day to day activities. Hence, they have not shown the child to any hospital for any consultation. But, the child gradually developed weakness of all limbs.
2. Later, at the age of 9 years, the parents had observed that day by day, the weakness is increasing and child was finding it very difficult to walk, they had decided to take consultation from a speciality hospital in Bengaluru. There, the proper diagnosis was made, genetic evaluation was done and she was given with medications which she continued for 2 and half years.
3. Then, they have shown the child to another hospital in Shimoga and started medications, which continued for about one year. But, satisfactory improvements were not seen.
4. Since, last 1 and half years, the child was not able to walk without support and she needs a wheel chair for assistance. So, they had decided to consult in SDM College of Ayurveda and Hospital, Hassan.
5. On 17/05/2018, the child was admitted in SDM Ayurveda Hospital with complaints of difficulty in walking, with loss of coordination, weakness in muscles of arms and legs, wasting of muscles on both legs, lateral curvature of spine, pain in the hip region, constipation, loss of appetite and lethargy.

ON EXAMINATION:

Table 1: Muscle Power before treatment:

Side	Upper Limb	Lower Limb
Left	4/5	1/5
Right	4/5	1/5

Table 2: Muscle reflex before treatment:

Reflex	Left	Right
Knee Jerk	0	0
Ankle Jerk	0	0

Muscle Tone: Hypertonic on lower limbs.

Sensory Examination:

Lower limb (both sides)

Vibration and proprioception - absent

TREATMENTS GIVEN:

1st Sitting:

External treatments:

1. *Sarvanga Udwarthana* followed by *Bashpa Sweda*- for first 5 days.
2. *Sarvanga Abhyanga* with *Mahamasha thaila* followed by *Shashtika Shali Pinda Sweda*- next 10 days.

3. *Matra Basthi* with *Mahamasha thaila* (45ml)-15 days.

Internal Medications:

1. *Panchakola phanta* -50ml TID B/F
2. *Chitrakadi Vati* -1 TID B/F
3. *Aswagandha Leha* BD B/F -1tsp
4. *Balawagandharishta* BD A/F -10ml
5. *Ksheerapaka* with a combination of *Bala*, *Aswagandha*, *Vidari*, *Kapikachu churna* BD A/F -25 ml.

2nd Sitting:

External treatments:

1. *Sarvanga Udwarthana* followed by *Bashpa Sweda*- for first 2 days.
2. *Sarvanga Abhyanga* with *Mahamasha thaila* followed by *Shashtika Shali Pinda Sweda*- for next 10 days.
3. *Matra Basthi* with *Mahamasha thaila* (45ml)-12 days.

Internal Medications:

1. *Panchakola Phanta* -50 ml TID B/F
2. *Chitrakadi Vati* -1 TID B/F
3. *Aswagandha Leha* BD B/F -1tsp
4. *Balawagandharishta* BD A/F -10ml
5. *Ksheerapaka* with a combination of *Bala*, *Aswagandha*, *Vidari*, *Kapikachu churna* BD A/F -25 ml.

OUTCOME OF THE TREATMENTS:

Patient and Care taker's Feedback:

1. Generalized weakness of lower limbs has reduced.
2. Pain in the hip region has reduced.
3. Stiffness of both the legs has reduced.
4. Able to walk with the support of a wheel chair.
5. Wasting of muscles has reduced and bulk has increased.
6. Appetite has improved and constipation got corrected.

Clinician assessed outcomes:

1. Muscle tone of lower limbs-normal.
2. Muscle power of lower limbs has improved from 1/5 to 3/5.
3. There were no any significant changes noted in the reflexes.
4. Sensory improvement noted with vibration on both legs.
5. Able to walk with the help of a walker.

DISCUSSION

Friedrich Ataxia can be understood as *Asthi majja gata vata* in *Ayurveda*. In the present case there were features of *Ama* and *Kapha* also. So the case was diagnosed as *Asthi majja gata vata* with *Kapha*

anubandha. *Asthi majja gata vata* was diagnosed with the presence of *Lakshanas* like *Sandhi shoola*, *mamsa kshaya* and *bala kshaya*⁴. The features of *Kapha anubandha* and *Ama* were *Mala sanga*, *Apakthi* and *Klama*. Here the *Vyana vata* is having *Vaigunya* in the *Asthi* and *Majja*. Loss of reflex represents the *Vyana vata karma hani* and the loss of vibration sense can be understood as *Supti* due to the *Anubandha kapha dosha prakopa*.

Since more *Ama* and *Kapha lakshanas* were seen and upholding the principle of "***Brumhyasthu mrudu langhayeth***" the treatment was started with *Rukshana*, *Pachana* and *Deepana*. For the purpose of *Rukshana*, *Sarvanga udwartana* was done for 5 days. After *Udwartana* the *Ama* and *Kapha Lakshanas* were reduced. For the purpose of *Ama pachana* and *Agni deepana*, *Panchakola phanta* and *Chitrakadi Vati* were administered internally for 3 days.

After attaining reduction in *Ama* and *Kapha Lakshanas* like *Apakthi*, *Aalasyam*, *Malasanga* and *Klama*, the treatment was shifted to *Kevala vata hara chikitsa* through *Brumhana*. Externally *Sarvanga abhyana* was done with *Mahamasha tailam* followed by *Shashtika shaali pinda sweda*. *Mahamasha tailam* was selected with the aim of providing *Bala* to the *Mamsa dhatu*. *Abhyanga* with *Mahamasha tailam* is indicated in *Sankuchita anga*. In the present case there was kyphoscoliosis which can be understood as *Sankuchita anga*. In case of *Asthi majja-gata vata*, *Bahya* and *abhyanthara sneha* is advised⁵. Here, *bahya snehana* is done and *abhyanthara Sneha* is planned for further visits to come. *Masha* due to its *Guru Snigdha guna* does the *Brumhana*. *Shashtika shali pinda swedam* also helped in *Brumhana* and does the *Vatashamana*. *Mahamasha tailam* was selected for *Matra basthi* due to its *Guru*, *Snigdha guna* and *Balya karma*. Internally, *Ashwagandharishtam* and *Ksheerapaka* with *Vidari*, *Kapikachu*, *Ashwagandha* and *Bala*. The *Madhura rasa*, *Guru*, *Snigdha Guna* and *Madhura vipaka* of the drugs of both medicines does *Vata shamana*. Both medicines were administered with the purpose of *Agni deepana*, *Vata Anulomana* and *Brumhana*.

CONCLUSION

Friedrich Ataxia can be understood as *Asthi majja gata vata* with *Kapha anubandha*. In Ayurveda, it can be managed in two phases. In the first phase *Saama vata* treatment can be adopted through *Langhana chikitsa*. In the second phase *Kevala vatika chikitsa* should be adopted through *Brumhana* and *Balya Chikitsa*. The prognosis of the disease depends on the duration of the disease and its chronicity. Physiotherapy can also be incorporated with the ayurvedic treatments for further improvement. In the present case, significant improvements were noted in subjective and objective parameters after two sittings of treatment.

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