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A CASE REPORT ON MYOTONIC DYSTROPHY: AN AYURVEDIC APPROACH

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ABSTRACT

Myotonic dystrophy (DM) is a progressive, inherited neuromuscular disorder characterized by muscle wasting, weakness, and *myotonia* (prolonged muscle contractions). It is the most common muscular dystrophy in adults, with no definitive cure, making symptomatic management crucial. This case report presents a 34-year-old male diagnosed with myotonic dystrophy, treated with Ayurvedic interventions. The treatment approach included *rukshana* (drying therapy), *snehapana* (oleation), *virechana* (therapeutic purgation), and *jeevanthyadi udwartana* (herbal powder massage) along with internal medications, leading to significant symptomatic relief and improved quality of life. The findings suggest that Ayurveda can play a role in managing disease progression and enhancing patient well-being.

INTRODUCTION

Myotonic dystrophy is part of a group of inherited muscular dystrophies affecting approximately 1 in 8,000 individuals. It presents with progressive muscle wasting, weakness, prolonged muscle contractions, and systemic complications such as cardiac conduction defects and hypersomnia. The condition has no known cure, with current treatment strategies focused on symptom management. This report examines an Ayurvedic treatment approach to managing myotonic dystrophy.

PATIENT INFORMATION

A 34-year-old male presented with difficulty in walking and climbing stairs for five years, slowness in activities for two years, and progressive muscle wasting. The patient had a history of exertional dyspnea and dizziness, leading to the implantation of a permanent

pacemaker (PPI-VVI) in 2019. He also experienced muscle stiffness, difficulty relaxing his grip, lower limb pain, increased sleep, and worsening symptoms over time.

Family history revealed similar symptoms in the patient's father and sister. He had no history of infectious diseases or trauma. The patient had quit smoking three years prior.

CLINICAL FINDINGS

- Muscle wasting: Thenar, hypothenar, quadriceps (right > left), gastrocnemius.
- Motor impairments: Waddling gait, lumbar lordosis posture on long walks.
- Coordination deficits: Impaired finger-nose test, positive Romberg's test (pre-treatment), and inability to perform tandem walking.
- North Star Ambulatory Assessment score: 25/34.
- Timed 10-meter walk: 14.94 seconds (normal range: 7-7.46 seconds)
- ECG (2019): Short QT interval, first-degree AV block.

DIAGNOSTIC ASSESSMENT

Diagnosis was based on progressive muscle weakness, loss of muscle mass, positive family history, and characteristic features such as myotonia (delayed muscle relaxation), cardiac conduction defects, and the warm-up phenomenon. Polymyositis, Duchenne, Becker, congenital muscular dystrophy, Schwartz-Jampel syndrome, hyperkalemic periodic paralysis, and paramyotonia congenita were excluded based on clinical presentation and history. Due to the absence of genetic testing, differentiation between type 1 (*Steinert disease*) and type 2 *myotonic dystrophy* was not confirmed.

Ayurvedic Diagnosis & Pathogenesis

From an Ayurvedic perspective, the condition was diagnosed as *anyonya avarana vata* (mutual obstruction of *vata*) following *mamsa dhatu kshaya* (muscle tissue depletion). The pathogenesis involved *beejabagahaavyava dusti* (genetic defect) leading to *mamsavaha srotodushti* (muscle channel impairment), *dhatvagni* (tissue metabolism) impairment, and *mamsa dhatu kshaya* (muscle tissue depletion), resulting in aggravated *vata dosha*. The symptoms correlated with *udana avrita prana ,prana avrita udana*, and *mamsa dhatu gata vata* (muscle wasting, stiffness, and pain).

THERAPEUTIC INTERVENTIONS

The treatment aimed at restoring *mamsavaha srotodushti* (muscle channel impairment), correcting *dhatvagni mandya* (weak digestive fire), and managing *vata avarana* (obstruction of *vata*). The approach included.

- **Initial Phase (*Rukshana* - Drying Therapy):** *Takrapana* (medicated buttermilk intake) with *Vaiswanara Churna*, *Udwartana* (powder massage) with *Vara Churna*.
- **Oleation (*Snehapana*):** *Indukantham Ghritam* (medicated ghee) for *vatashamana* (pacifying *vata*) and *brimhana* (nourishment).
- **Sudation (*Swedana*) & Massage (*Abhyanga*):** *Dhanwantharam Tailam* (medicated oil) massage with *Ushma Sweda* (steam therapy).
- **Therapeutic Purgation (*Virechana*):** *Nimbamruthadi Eranda* (castor oil-based herbal formulation) with *Guggulu Thikthaka Yoga*.
- **Post-*Virechana* (*Udwartana* - Herbal Powder Massage):** *Jeevanthyadi Churna* for muscle nourishment and strengthening.
- **Internal Medications**
  - *Panchakola Churna* & *Panchakolasava* for *deepana-pachana* (digestive enhancement)
  - *Indukantham Kashayam* for *vatashamana*, *kshayahara* (tissue restoration), and *balya* (strengthening)
  - *Dhanwantharam Tablets* for *vata anulomana* (regulating *vata*)
  - *Prasarinyadi Kashaya* for *vatahara* (pacifying *vata*) and muscle pain relief.

Table 1. OP level management.

Date	Treatment
26/03/21	*Indukantham kashayam* 90 ml bd , *Panchakola churnam* 1 tsp with hot water, *Panchakolaasavam* 20ml bd ,*Dhanwantharam gulika* sos with *chukkuvellam*(water boiled with dried ginger)
02/04/21	Same medicines + *Hinguvachadi* tab 1-0-1
10/04/21	Same medicines + *Chinchadi taila(external application)*
19/04/21	*Prasarinyadi kashayam* 90ml, *Panchakola churnam,Panchakolaasavam, Dhanwantharam gulika*

Table 2. IPD management.

Date	Internal medication	External therapy
22/06/21	*Bhadradarvadi kashayam* 60ml bd	*Takrapanam+vaiswanara churnam(10g)+ udwartanam vara churnam* : 3 days
26/06/21	*Bhadradarvadi kashayam* 60ml bd	*Snehapanam* with *Indukantham ghritham* : 4 days 30-60-90-120
30/06/21	*Bhadradarvadi kashayam* 60ml bd	*Abhyangam + ushma swedam* : 3 days with *dhanwantharam taila*
03/07/21	*Bhadradarvadi kashayam* 60ml bd	*Virechana* with *nimbamruthadi erandam* : 15 ml
05/07/21	*Bhadradarvadi kashayam* 60ml bd	*Udwartanam* with *jeevanthyadi churnam*

OUTCOME & FOLLOW-UP

Following treatment, the patient demonstrated improvement in various functional parameters.

- **North Star Ambulatory Assessment Score:** Improved from 25/34 to 20/34
- **Romberg's Test:** Changed from positive to negative
- **Tandem Walking:** Became possible
- **Walking Speed:** Improved from 14.94 sec to 10 sec per 10 meters
- **Stair Climbing:** Became possible without support
- **Hand Grip Myotonia:** Improved, except in bilateral thumbs.

DISCUSSION

The diagnosis was based on progressive muscle weakness, muscle wasting, waddling gait, difficulty climbing stairs, and a positive family history. Polymyositis, often mistaken for muscular dystrophy, was excluded due to the absence of autoimmune risk factors, infections, and fever. No supportive diagnostic laboratory tests were conducted. In Ayurveda, the condition aligns with *Adibala Paravritta Vyadhi*, where *Beejabagahaavyava Dusti* leads to *Mamsavaha Srotodushti*, *Dhatvagni* impairment, and *Mamsa Dhatu Kshaya*, causing *Vata Prakopa*. This results in symptoms like muscle wasting, stiffness, and weakness, correlating with *Udana Avrita Prana*, *Prana Avrita Udana*, and *Mamsa Dhatu Gata Vata*. Other possible conditions like *Sarvanga Vata*, *Sarvanga Roga*, and *Mamsa Dhatu Gata Jwara* were excluded.

The treatment aimed to slow disease progression, improve mobility, and enhance quality of life by addressing *Srotodushti*, *Dhatvagni* impairment, and *Vata Avarana*. Since *Brimhana* therapy alone could aggravate symptoms, an initial *Rukshana* therapy was done using

Takrapana and *Udwartana*, followed by *Snehapana* with *Indukantham Ghritam*. *Swedana* and *Abhyanga* with *Dhanwantharam Tailam* relieved stiffness, while *Virechana* with *Nimbamruthadi Eranda* helped pacify *Vata*. Internal medications such as *Panchakola Churna*, *Indukantham Kashayam*, and *Prasarinyadi Kashaya* were used to correct *Dhatvagni* impairment, reduce fatigue, and strengthen muscles.

After four outpatient treatment courses, the patient reported reduced fatigue and grip *myotonia*, but persistent lower limb pain required inpatient care. During admission, *Bhadradarvadi Kashaya* was given for its *Vata-Kapha Shamana* properties, followed by internal and external *Rukshana* using *Takrapana* and *Udwartana*. *Snehapana* with *Indukantham Ghritam* was stopped upon the appearance of *Sneha Darshana*, *Snehotklesha*, and *Klama*. *Swedana* and *Abhyanga* with *Dhanwantharam Tailam* were done before *Virechana* with *Nimbamruthadi Eranda*, containing *Guggulu Thikthaka Yoga*, which is highly *Vatahara*. Three days post-*Virechana*, *Udwartana* with *Jeevanthyadi Churna* was performed for muscle nourishment.

Post-treatment, improvements were noted in mobility, muscle stiffness, and grip strength. The North Star Ambulatory Assessment Score improved from 25/34 to 20/34, Romberg's test turned negative, tandem walking became possible, walking time improved from 14.94 sec to 10 sec per 10 meters, and stair climbing became independent. Grip *myotonia* improved except in the thumbs. This case highlights Ayurveda's potential in managing myotonic dystrophy by addressing *Vata* imbalance and *Dhatu Kshaya*, improving functional abilities, and slowing disease progression. Further studies with genetic validation and a larger patient base are needed to confirm efficacy.

CONCLUSION

Myotonic dystrophy is a progressive disorder with limited treatment options. This case report demonstrates that Ayurvedic interventions can potentially halt disease progression, enhance muscle function, and improve the quality of life. Integrative approaches combining Ayurveda with conventional management may offer new avenues for treating neuromuscular disorders.

PATIENT PERSPECTIVE

The patient reported noticeable improvements in muscle strength, hand grip, and walking ability. He expressed satisfaction with the therapy, emphasizing enhanced mobility and daily activity performance.

INFORMED CONSENT

Written consent was obtained from the patient for publication of this case report.

CONFLICTS OF INTEREST: None declared.