THERAPEUTIC EFFICACY OF PANCHAKARMA IN MUSCULAR DYSTROPHY- A CASE STUDY

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ABSTRACT
Muscular Dystrophy is a catastrophic heritable condition caused by X-linked neuromuscular disorder due to mutations in the gene containing dystrophin protein, it affects only males. Due to the absence of dystrophin protein, there is progressive muscle weakness and wasting that ultimately causes degeneration of muscles. There is no treatment in any system of medicine which has any definite impact upon Muscular dystrophy. In Ayurveda, there is some hope. Treatment involving Ayurvedic medicine especially Panchkarma has shown definite protective and rehabilitating influence and longer survival upon Muscular dystrophy.

Key words: Panchkarma, Muscular dystrophy, Shashtikshalipinda Sweda, Vasti, Udvartana

INTRODUCTION
The word dystrophy comes from Latin and Greek roots meaning “faulty nutrition”. Doctors first began describing muscle diseases in 19th century. In muscular dystrophy there is progressive weakness and degeneration of the skeletal or voluntary muscles. Major forms of muscular dystrophy are myotonic, Duchene, Becker, Limb Girdle, fascioscapular.¹ Muscles of heart and some other involuntary muscles are also affected in some forms of muscular dystrophy. In Ayurveda, Acharyas carefully consider this condition as Adibala-pravrit (disease that occurs by defects in shukra i.e. spermatozoa and shonita i.e. ova or we can say hereditary) with Mansagata Vata (Vata dosha vitiation in Mans dhatu) due to Srotorodha (obstruction in tissue microchannels). There is depletion of Dhatvagni (metabolism) paving the way of ama (toxins) formation, ² followed by vitiation of Kaphadosha. While Srotorodha produces hypertrophy in particular region, Vata is manifested first as Prakopa
(vitiation) and then depletion of its qualities. This complex pathogenesis may be responsible for progressive wasting and necrosis of the affected muscle fibers.

CASE REPORT:
A 12 yrs old male patient, native of Saharanpur, U.P. was admitted in hospital of Rishikul Campus, UAU, Haridwar in November 2105 with chief compliants of-
- Weakness in lower limbs,
- Difficulty while walking, climbing stairs and running since 4 years.
- Decreased muscle bulk around pelvic and thigh region and increased muscle bulk in calf muscles since 3 years.

Detailed history of patient reveals that he was asymptomatic 4 years back. Then gradually he developed difficulty while running and climbing stairs, difficulty in getting up from squatting position. Subsequently, this problem worsens and after few months he started feeling difficulty even while walking. Along with this he also noticed decrease in muscle bulk around pelvic and thigh region with increasing muscle bulk in B/L calf region. The condition of patient was getting worse day by day.

A course of Ayurvedic Panchkarma treatment and some conservative treatment was given to him before 6 month. During this period he got some improvement in walking but after some time symptoms relapse.

Patient also has family history of same illness as Among 5, 4 of his uncle from maternal side died due to same disease. While rest one is healthy. Patient’s real brother also affected from same problem.

On General Examination: we have found no significant anomaly in vital signs.
- Gait - Waddling gait
- Reflexes-
  - Knee jerk- Right - + Left - +
  - Ankle jerk- Right - ++ Left - ++
  - Biceps jerk- Right - ++ Left - ++
- Muscle tone –
  - Upper limbs- Normal (B/L)
  - Lower limbs- Mild hypotonic (B/L)
- Pseudo-hypertrophy of B/L calf muscles
- Spine curvature - Mild Lumbar lordosis present
- Sensory Impairment – Not present
- Gower’s sign - +ve

By analyzing, the patient was diagnosed as Mamsagatavata, according to Acharya Chāraka.3

Simple random single case study.
Total sittings of treatment – 4
Total duration- 2 years
1st sitting
1. SarvangAbhyanga (Mahanarayan oil) - 14 days
2. YapanaBasti (MamsaRasa) - 8 days

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Dravya</th>
<th>Dose</th>
<th>Duration</th>
<th>Anupana</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Giloyasatva</td>
<td>500mg</td>
<td>Bd</td>
<td>Milk</td>
</tr>
<tr>
<td></td>
<td>Shunthichurna</td>
<td>1gm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ashwagandhachurna</td>
<td>3gm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Treatment during follow up-
1. *Phalatrikadi Kwath* - 30 ml BD empty stomach
2. *Chitrakadi Vati* - 1 tab. TDS with luke warm water
3. *Trayodashang Guggulu* - 1 tab. TDS with luke warm water
4. *Ashwagandha Churna* - 3 gm. BD with milk
5. *Drakshasava*- 15 ml. BD after meal

**2nd sitting**
1. *Tail Dhara (Dhanwantar oil)* - 14 days
2. *Yoga Vasti-Dashmool Kwath Niruha Anuvasana* - Dhanwantar oil

Follow up treatment:
1. *Trayodashang Guggulu* - 1 tab. TDS with luke warm water
2. Tablet Neo - 1 Tab. BD
   *Ashwagandha Churna* - 3 gm. BD with milk

**3rd sitting**
1. *Udvartana* – 3 days followed by *Shashti-ShaliPinda Sweda* for 14 days
2. *Yoga Vasti–Yapana Vasti (Mamsa Rasa)*

Follow up treatment:
1. *Sh. Kupilu* - 50mg.
   *Rasa Sindura* - 125mg.
   *Shanka Bhasma* - 500 mg.

*Ashwagandha Churna* - 3 gm. BD with milk
2. *MashabaladiPachana Kashaya*- 50 ml. BD empty stomach

**4th sitting**
1. *Udvartana* for 3 days followed by *ShashtiShaaliPinda Sweda* – 14 days
2. *Yoga Vasti- Dashmool Kwath Niruha Anuvasana* - Dhanwantar oil
3. *Narsingh Churna* - 5 g. BD with luke warm water
   *Ashwagandha Churna* - 3 gm BD with milk.

**Table 2: Comparison of Sign and Symptoms Before and After Treatment**

<table>
<thead>
<tr>
<th>PARAMETRES</th>
<th>BT</th>
<th>AT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle Bulk</td>
<td>Thigh:</td>
<td></td>
</tr>
<tr>
<td>Right</td>
<td>12.5 inch</td>
<td>13 inch</td>
</tr>
<tr>
<td>Left</td>
<td>12.5 inch</td>
<td>13 inch</td>
</tr>
<tr>
<td>Calf muscles hypertrophy</td>
<td>14.2 inch</td>
<td>13.8 inch</td>
</tr>
<tr>
<td>Reflex (knee jerk)</td>
<td>Diminished</td>
<td>Diminished</td>
</tr>
<tr>
<td>Power (lower limb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right</td>
<td>4/5</td>
<td>4'/5</td>
</tr>
<tr>
<td>Left</td>
<td>4/5</td>
<td>4'/5</td>
</tr>
<tr>
<td>Toe walking</td>
<td>Present</td>
<td>Not Present</td>
</tr>
<tr>
<td>Serum CPK</td>
<td>916U/L</td>
<td>256U/L</td>
</tr>
</tbody>
</table>

**DISCUSSION**
Muscular dystrophies according to *Ayurveda* has many correlations and we can consider this patient with *Mansgatavata* and *Snayugatavata* where symptoms are like tiredness and pain on little walk (*Saruk shramitamatyar-*)
tham) and Khalli (pain in feet, calf, thigh regions) Kuhjatvam etc.⁴ Muscular dystrophies are genetic disorders and as this patient also shows strong past history of it, we can consider it as Adibala-pravrita Vyadhi (disease that occurs by defects in shukra i.e. spermatozoa and shonița i.e. ova) viz. Shushruta’s vyadhi Vargikarana⁵ (i.e. Classification of Diseases). Here pathogenesis occurs due to Beejbhaga-vyavaadushti (i.e. Sex-linked disease). As Vata dosha is the primal constituent of the living body and is responsible for functions of central, autonomic and peripheral nervous system.⁶ Here due to some mutation in X-Chromosome there will be pathetic functioning of Vata which further leads to its vitiating and Sthansanshraya (occupying) in Mans and Medo dhatu and vitiates and depletes these Dhatus (X-linked progressive degenerative disorder of muscle tissue).⁷ Simultaneously, there will be formation of Aam (toxins) which leads to Srotorodha (obstruction) and Vata dosh vitiation. There will be hypertrophy in particular region and wasting in other region due to Vata dosha vitiation. In that case there is no satisfactory treatment in any system of medicine because of progressive degeneration nature of disease. In Ayurveda, Abhyanga (oil massage) helps in subsiding Vata dosha and improves the tone of muscle and compactness of body. Ayurvedic Til mash pinda Swedana increases the metabolic activity and improves the membrane defect. Acharya Charaka has mentioned Vasti as Ardha chikitsa (half-treatment) and best treatment for vitiated Vata.⁸ The Herbo-mineral drugs works on Dhatvagni hence giving nutrition to subsequent Dhatus. We have noticed muscle bulk increase in pelvic region and decrease in hypertrophy in calf region. How the lack of sarcolemma protein dystrophin gives rise to the final disease status is not clear. It should be investigated in the light of possible influence on sarcolemma membrane. There is further need of controlled studies and multi center clinical trials on large scale with improved study design and assessment techniques.

CONCLUSION
In the condition like myopathies where progression of disease is very fast and fatal and no cure is available in modern medicine the Ayurvedic treatment proved to slow down the progression of disease and bring out a mild improvement.

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