IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

EFFECT OF PANCHAKARMA THERAPY IN THE MANAGEMENT OF CONGENITAL MUSCULAR DYSTROPHY

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ABSTRACT

-Congenital Muscular Dystrophy (CMD) is one of the variants of muscle weakness disorders presenting early in life during infancy and soon after birth, most of these disorders are inherited and linked to specific genes.[1] The global prevalence of muscular dystrophy is 3.6 per 100,000 people.[2] CMDs are characterized by hypotonia, muscle weakness, and delays in achieving motor milestones.[3] There is no exact correlation for this disease in *Ayurveda*, however, it could be understood as *Adibalapravrutta mamsadhatugata vatavyadhi* (hereditary anomalies affecting muscle tissues due to vitiated *Vata)* Guidelines for the multidisciplinary care for Duchenne muscular dystrophy that address obtaining a genetic diagnosis and managing the various aspects of the disease have been established. In addition, a number of therapies that aim to restore the missing dystrophin protein or address secondary pathology have received regulatory approval and many others are in clinical development.

Key words – dystrophin, girdle, muscular dystrophy, *shashtishali pind sweda*,,

AIM AND OBJECTIVE- Effect of *panchakarma* therapy in the management of congenital muscular dystrophy

MATERIAL AND METHOD- the historical writings on *Panchkarm* from *Brihattrayee* and *Laghutrayee* and other relevant *Ayurvedic* books, including the journals, presented papers, and other related *Ayurvedic* works. A 12 years old male patient, C/O- 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.

RESULT

Congenital muscular dystrophy can be managed on the basis of *Ayurvedic* management. Improvement in the activity of daily life and muscle power is seen in the present case. Randomized controlled trials can be done to further strengthen the evidence .

INTRODUCTION

Muscular dystrophy is a Rare Inherited disease.Its Incidence : 1:10 000 (worldwide).

It is mainly Characterized by Progressive muscle weakness and wasting.

It is caused by Gene mutation, In muscular dystrophy Skeletal Muscles are mainly affected. Later Fat and connective tissue replaces the muscle fibre.No cure but can slow down the progression by medications and other therapies.

Historical overview-

First historical account of Md. is appeared in 1830. by Sir Charles Bell. After 1850 a French neurologist Guillaume Duchenne gave a comperhensive account on Md.

Guillaume Benjamin Amand Duche (French neurologist, 1860s)

In 1864, Dr. Edward Meryon recognize the maternal inheritence.

In the late 1970, genetic studies linked the Duchenne gene to chromosome Xp21.

In 1987, dystrophin were discovered.

General Clinical symptoms –

1.Muscle weakness

2.Delayed development of motor muscle skills

3.Progressive muscle wasting

4.Difficulty using one or more muscle groups

5. Drooling

6.Eyelid drooping

7.Frequent falls

8.Loose of muscle strength, size

9.Waddling gait,Calf deformation and Respiratory difficulty.

Types and classification

Based on gene mutation-

DMD & BMD

Involve mutations in the dystrophin gene

X-linked inheritance•

Deffect in intra cellular muscle cell protein

In BMD

Dystrophin is partially functional or its reduced expression is seen.

In DMD

Dystrophin gene is missing

LGMD CMD

Involve mutations in several genes

Autosomal recessive Inheritance•

DEFECTS, in Extra-cellular Matrix

Duchenne's Muscular Dystrophy

Inheritance X-Linked recessive

✓ Defective gene / Protein – Dystrophin

Onset age Before 5 years

Clinical features Progressive weakness of gridle muscles, Unable to walk

after age 12, Progressive Kyphoscoliosis and Respiratory Failure in 2nd or 3rd decade of life.

Other organ/ systems involved - Mental impairment,Cardiomyopathy, Respiratory system

Becker's Muscular Dystrophy

✓Inheritance X-Linked recessive-

Defective gene / Protein- Dystrophin

Onset age adult Early childhood to

Clinical features- Progressive weakness of gridle muscles Able to walk after age 15 life Respiratory Failure in 2nd or 3rd decade of.

Other organ/ systems involved- Cardiovascular system

AYURVEDIC VIEW –

Possible correlation –

Dhatu kshaya

Bijadosha vyadhi

Mamsa gata vata

Snayugata vata

LABORATORY FINDINGS FOR DIAGNOSIS

1.Serum CK levels (20-100 times elevated, than normal)

2.EMG reveals features typical of myopathy

3.Muscle biopsy (necrotic and regenerating muscle fibres)

4.Mutation Analysis (using Peripheral blood leukocytes.)

5.Western Blot Analysis (using muscle biopsy specimen)

6.Immunocytochemical staining of muscle with dystrophin antibodies.

7.Ultra sonography

8.For Carriers detection, dystrophin analysis, using muscle biopsy is not reliable.

LINE OF MANAGENMENT

Srothoshodhana Rukshana

Brimhana chikitsa.

CASE PRESENTATION-

A 12 years old male patient, C/O- 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

TREATMENT GIVEN

Total 4 sittings.

1 st sitting 1. *Sarvang Abhyanga (Mahanarayana oil)* - 14 days 2. *YapanaBasti (MamsaRasa*) - 8 days.

Second sitting:1. *Tail Dhara (Dhanwantaram tailam*) - 14 days2. *Yoga Basti-Dashmoola Kwath Niruham Basti3. Anuvasana Basti - Dhanwantaram tailam*

Third sitting :1. *Udvartana* - 3 days followed by *ShashtiShaliPinda Sweda* for 14 days2. *Yoga Basti - Yapana Basti (Mamsa Rasa)*

Fourth sitting

1. Udvartana for 3 days followed by *ShashtiShaaliPinda Sweda*14 days *2. Yoga Basti Dashmoola Kwatha Niruham3.Anuvasana Basti - Dhanwantaram tailam.*

DISCUSSION

Deepana Pachana

Agni is considered as the whole and sole responsible for the *dhatupaka.Amapachana* also

e.g *Trikatu, Hinguvashtaka*

Langhana

Rukshana with e.g *Udvarthana* It provides the benefits like *Sthirikarana anga, Dhanyamla dhara* helps to remove the *srotorodhan*

Snehana *bahya* and *abhyantara SnehanaAbhyanga - Mahamasha th, Mahanarayana th, Balashwagandhalakshadi*.

Swedana-It relieves the pain due to the stiffness of muscles. *Shastika shali Pinda sweda, Bashpasweda, Nadisweda*

Shodananga snehapana Amrutaprasha ghrita, Tikthaka ghrita Can be used.

Mridu Vamana

If the patient satisfies the conditons like *Kaphagata pitta, Utklesha kapha*.It corrects the corrects the depletion of *medas.*

Vamana with - *Vacha, Madanaphala*

Mridu Virechana - Helps to bring the *Anulomana* and *Tridoshahar.*

Bhrimhana Basti It should be in a *kala* or *karma Basti* pattern.

Yapana basthi Using *Mamsa rasa, Madanaphala in Basthi*.

Anuvasana Basthi Tikta ghrita, Aswagandha ghrita, Chagalayadi ghrita.

SHAMANA MEDICINES

Kashayam -Indukantham, Badradarvadi, Guduchyadi, Vidaryadi., Phalatrikadi

Choornam, Vati- Trikatu, Hinguvashtakam, Pippali, Ashwagandha, Chitrakadi Vati,

Guggulu -Trayodashanga Guggulu

Ghrita-Nagabala, Bhrihat chagaladi, Shadpalaadi

Lehyam-, Narasimha, Kushmandaa

Arishtam- Balarishtam, Aswagandharishtam, Drakshasavam

CONCLUSION

Ayuvedic treatment is aimed at restoring the *doshas* to harmonious equilibrium thereby strengthening individual healing process. The case report demonstrate the treatment of congenital muscular dystrophy completely with ayurvedic interventions which helps in gradually withdrawing of allopathic drugs.

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