

Neuromuscular diseases seen in District Head Quarters Hospital, Sargodha, Pakistan

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Objective: To find the frequency of neuromuscular diseases in the patients coming to physiotherapy department of District Head Quarter Teaching Hospital (DHQ) Sargodha and correlate it with the factor of gender and their common symptoms present.

Methodology: This Observational study was conducted among patients visiting department of physiotherapy of DHQ Sargodha from July 1, to December 30, 2017. All age group patients were included having neuromuscular diseases.

Results: Out of 183 neuromuscular patients,

97(53%) were suffering from cervical radiculopathy, followed by sciatica (26.22%) and Bell's palsy (13.11%). These conditions were more common in females as compared to males.

Conclusion: Neuromuscular diseases are common in our community. Cervical radiculopathy was the commonest followed by sciatica and Bell's palsy. Pain was major complaint and female patient ratio was more than males. (Rawal Med J 202;45:403-405).

Keywords: Neuromuscular, sciatica, Bell's palsy, cervical radiculopathy.

INTRODUCTION

Neuromuscular conditions are common cause of pain.¹ Most are related to chronic degenerative process.² Physical therapists can play a critical role in developing forward-thinking approaches in using innovative health and wellness strategies to promote positive changes in exercise and activity behaviors.³ A study from Egypt involving 9303 patients, with urban residents (57.3%) and rural residence (42.7%) reported that there was a higher prevalence of neuromuscular diseases in the rural than urban population.⁴ The majority had carpal tunnel syndrome, muscular dystrophy, myotonia and myasthenia gravis.⁴

The high incidence, prevalence, and cost of neck pain are causing a human and economic toll.⁵

Stroke is reported to occur in high percentage of elderly patients.⁶ Nerve root entrapment (commonly described as sciatica) often have referred leg pain.⁷ In UK, the frequency of sciatica due to disc herniation at lumbar spine was recorded as 3.1% in men and 1.3% in women.^{8,9}

Parkinson disease is second most prevalent neurodegenerative disease, Alzheimer's disease been the first.¹⁰ Injury to the central nervous system

during early development can lead to cerebral palsy (CP).¹¹ The aim of study was to identify the frequency of neuromuscular patients visiting department of physiotherapy DHQ teaching hospital Sargodha and to explore which gender is more prone to neuromuscular diseases and which diseases and symptoms are common in these patients.

METHODOLOGY

This observational study was conducted at Department of Physiotherapy, DHQ Sargodha from July 1, to December 30, 2017. Patients of every age having neuromuscular diseases were included and those having musculoskeletal conditions such as frozen shoulder, neck and back pain of mechanical origin were excluded.

Close ended questions were included about their area of symptoms, duration of symptoms, aggravating and relieving factors and so on. Verbal description was given to patients before distributing questionnaires. Questions about their demographic data and related to history of illness were asked in the questionnaire. Informed consent was also taken.

Statistical Analysis: The data were compiled

statistically by using the Microsoft Excel in the form of tables, figures and percentages.

RESULTS

Out of 183 patients, 97(53%) were suffering from cervical radiculopathy. Sciatica was diagnosed in 48(26.22%) patients, being the second most common neuromuscular condition followed by Bell's palsy in 24(13.11%) (Table 1). Pain was the most common symptom followed by stiffness and muscle weakness. More females suffered neuromuscular conditions (Table 2).

Table 1. Different Diagnosis seen.

Condition	Frequency	Percentage
Cervical Radiculopathy	97	53
Bell's Palsy	24	13.11
Cerebral Palsy/ Delayed milestones	8	4.37
Sciatica	48	26.22
Stroke	3	1.63
Brachial plexus injuries	2	1.09
Parkinson's disease	1	0.54
Total	183	100

Table 2. Gender distribution.

	Frequency	Percentage
Male	87	47.5%
Female	96	52.5%
Total	183	100.0

Other condition like Cerebral Palsy was reported in 4.37% of total neuromuscular patients visited followed by stroke (1.63), brachial plexus injuries (1.09%) and Parkinson's disease (0.54%) (Table 1). Pain, swelling, stiffness, weakness, paralysis and difficulty with activities of daily living were frequent presenting complaints.

DISCUSSION

Cervical radiculopathy is more common in elderly due to degenerative changes in spine, with some estimate putting 50-54 ages at highest risk. When cervical radiculopathy occurs in younger population, disc herniation or injury is most likely the cause.^{12,13} Our study showed that cervical radiculopathy was most common condition (53%)

of total neuromuscular conditions. Neck pain is becoming common throughout the world. Depressive mood and psychological stress are the leading factors in pain in neck, as 17% of population was affected by anxiety and tension in patients suffering from cervical radiculopathy/neck pain.¹⁴ Disk-related sciatica creates public burden on health because of its high prevalence and much socioeconomic costs. The prevalence of sciatica is increasing due to different causative factors¹⁵ and our study also showed sciatica as second most common neuromuscular condition, 48 out of 183 patients suffering from it.

Pain is a common problem among patients with neuromuscular disorders.¹⁶ It accounted for 47.5% and patients claimed pain to be the worst part of their illness. Chronic pain is a significant problem in patients with neuromuscular conditions.¹⁷ Female gender is more prone to neuromuscular condition especially lumbar disc herniation leading to sciatica.¹⁸ In our study, 52.5% of females had neuromuscular conditions.

Cerebral palsy is a motor impairment one of the most common motor impairment in children.¹⁹ Our study showed 8 out of 183 patients suffering from cerebral palsy and developmental delay.

Brachial plexus injuries occurred due to many reasons it may be due to trauma, birth injury our study showed only two patient of brachial plexus injury. Only one Parkinson patient was seen in our study. Brain is altered by exercise.^{20,21}

The outcomes of our study could be beneficial in identifying the risk factors which are modifiable, to outline the risk of disability in future and to develop a preventive plan. For example; primary prevention for good quality of life and which can further prevent many disabilities. It could also help in establishment of good recommendation to improve quality of health care system.

CONCLUSION

Neuromuscular diseases are common in our community. Cervical radiculopathy was the commonest neuromuscular condition followed by sciatica and Bell's palsy. Female patient ratio was more in number as compared to males. Most of patients had pain as their major complaint.

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