E-Poster

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Protocol for Assessment and Intervention by Physical Medicine and Rehabilitation in Patients With Myasthenia Gravis – A Paradigm Shift

Topic: Health Conditions (Nervous System, Musculoskeletal System, Cardiopulmonary System)

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BACKGROUND

Myasthenia Gravis (MG) is an autoimmune neuromuscular disease characterized by fluctuating muscle weakness. Historically, there has been concern that physical activity could worsen symptoms. However, recent evidence supports the safety and efficacy of exercise in improving muscle strength, functionality, and quality of life. Despite this, international guidelines lack detailed recommendations for rehabilitation programs. The aim of this protocol is to establish a standardized approach for the assessment, intervention, and follow-up of patients with stabilized MG.

METHODS

The target population includes adults with generalized MG, Grade II-III according to the Myasthenia Gravis Foundation of America. Patients will be excluded in case of unstable clinical condition, uncontrolled pain or comorbidities impeding participation in the program. The first PM&R evaluation will focus on: muscle strength targeting neck flexion/extension, shoulder abduction, hip flexion/abduction; speech and swallowing function; respiratory function, through measurement of Maximum Inspiratory Pressure (MIP), Maximum Expiratory Pressure (MEP), Peak Cough Flow (PCF); functional performance, using the 30-second sit-to-stand test and the 6-Minute Walk Test (6MWT); disease-specific scales, including the MG-Composite-Score, MG-Activities-of-Daily-Living (MG-ADL) scale, MG-Quality-of-Life-15; balance, using the Berg Balance Scale (BBS).

RESULTS

Patients will undergo a 12-week program including: physiotherapy, two sessions per week, with aerobic training, 5' warm-up, 10'-20'of effective training, 5' cool-down period; and strength training targeting proximal muscle groups, starting without any external load, increasing to 40-50% of 1-Repetition Maximum (target intensity Borg Rating of Perceived Exertion 11-12; heart rate 70% of maximum achieved during the 6MWT). If PCF < 270L/min, MIP < 70% and/or MEP < 70% of the predicted value, respiratory training will be implemented, 5 weekly home sessions. Rehabilitation nursing will be offered to patients with impact on basic ADLs (MG-ADL ≥1 on items 5/6) or BBS score < 56. Speech therapy will be provided in case of dysphagia, dysarthria, or dysphonia. Safety measures: scheduling sessions 1 hour after pyridostigmine, frequent 2'-3' breaks incorporated to prevent muscle fatigue, monitoring signs of fatigability, pyridostigmine 60 mg available for patients experiencing unresolved fatigability after resting 1 hour. At the end of the program decisions will be made regarding the maintenance of the program or prescription of community-based exercise programs. Follow-up: every three months during first year, every six months during second year, annually thereafter.

CONCLUSION

This clinical protocol establishes an innovative model of care for patients with MG, integrating a multidisciplinary and standardized approach, with patient-centered interventions. By addressing physical and functional needs, this protocol aims to fill a gap in the management of MG, promoting improvements in clinical stability and quality of life.

Statement of Disclosures

None

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