E-Poster

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Rehabilitation in Bing-Neel Syndrome (BNS): A Case Report

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

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BACKGROUND

Bing-Neel Syndrome (BNS) is a rare manifestation of Waldenström Macroglobulinemia (WM), characterized by neurological symptoms such as sensory-motor deficits, balance abnormalities and neuropathic pain. Currently there is not enough information to support continuous treatment, and no established guidelines exist for the rehabilitation of this rare condition.

CASE DESCRIPTION

We describe the case of a Caucasian 60-year-old man diagnosed with BNS in December 2024, who was initiated on a pharmacological protocol with Ibrutinib during his admission to the internal medicine ward. In the following days, he was transferred to the Rehabilitation Clinic for further management. Upon admission, the patient was assessed by a multidisciplinary team, including physiatrist, pulmonologist, neurologist and physiotherapists, and a rehabilitation programme was established. The clinical examination at admission revealed orthopnoea and overuse of accessory respiratory muscles, with an ineffective cough reflex and reduced feeding time due to dyspnea. Motor function was severely impaired, with absent trunk control, proprioceptive dysfunction, generalized muscle hypotrophy, reduced upper limb strength (particularly on the left side), and lower limb paresis. Initial rehabilitation treatment focused on clinical stabilization, neuropathic pain management and respiratory support, incorporating a cough-assist device along with inspiratory muscle training. The rehabilitation team then set motor goals aimed at preserving joint range of motion and restoring trunk control, through passive and active-assisted exercises and the use of a tilt table, adjusted according to the patient's tolerance.

DISCUSSION

After approximately one month of intensive rehabilitation programme, the patient showed improvement primarily in pulmonary function: supplemental oxygen therapy (SOT) duration decreased, secretions aspiration was no longer necessary, and meals were administered without the need for pauses or breathing exercises. Additionally, speech tone and dialogue length improved, enabling more effective communication. Neuropathic pain decreased following the initiation of pharmacological therapy with pregabalin. From a motor perspective, joint range of motion was preserved, and no changes in muscle tone were observed due to appropriate positioning and targeted stretching exercises. Secondary complications, such as pressure sores, were prevented, and reasonable trunk control was restored. These preliminary findings will be updated with additional data from the ongoing hospitalization.

CONCLUSION

The planned hospitalization duration is four months long. After one month, the individual exhibited a significant respiratory improvement resulting in a reduction in daily SOT hours. However, there is still limited evidence of motor skills improvement, while social and occupational activities are supported using appropriate assistive devices.

Statement of Disclosures

The authors declare that they do not have conflicts of interests.

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