

# SUBACUTE COMBINED DEGENERATION: FUNCTIONAL OUTCOMES OF TWO PATIENTS FOLLOWING STRUCTURED, MULTISTAGE REHABILITATION

**Ana Isabel Romeiro, Joana Ramalho, Ana Sofia Azevedo, Manuel Coutinho Fernandes, Filipe Mendes, Diana Rocha Oliveira, David Moura, Vitor Costa Pereira, Pedro Cubelo Pereira, Catarina Aguiar Branco**

Unidade Local de Saúde de Entre o Douro e o Vouga, Portugal

e-mail: [anaisabelromeiro@gmail.com](mailto:anaisabelromeiro@gmail.com)

## Background

Subacute Combined Degeneration (SCD) is a rare complication of vitamin B12 deficiency that primarily affects the posterolateral columns of the spinal cord, leading to sensory and motor deficits. Early diagnosis and a structured rehabilitation program (RP) are crucial for improving functional outcomes and quality of life. This case report illustrates the clinical variability of SCD and the impact of timely rehabilitation.

## Case report

Two female patients, aged 60 and 49, presented to the emergency department with progressive, symmetrical, ascending paraesthesia in the lower limbs and gait instability. Neurological examination revealed impaired proprioception, positive Romberg sign, wide-based gait, and diminished lower limb strength. Laboratory evaluation revealed megaloblastic anemia, pancytopenia, and vitamin B12 deficiency in the older patient; the younger, with chronic alcohol consumption, had macrocytosis and folate deficiency with normal B12 levels. Both were negative for anti-parietal cell and anti-intrinsic factor antibodies. Neuroimaging showed a normal spinal MRI in one case and a T2 hyperintense lesion from the bulbomedullary junction to T11 in the other. Electromyography in the latter revealed symmetrical, axonal sensory-motor polyneuropathy with marked sensory predominance. SCD was diagnosed and they began a multidisciplinary RP with physiotherapy and occupational therapy, initially in a hospital setting, then in a rehabilitation centre, and later as outpatients. After 10 weeks of inpatient rehabilitation, both showed notable functional gains: motor FIM scores improved from 71 to 84 in one case and from 50 to 60 in the other. Both gained independence in activities of daily living and progressed from wheelchair use to walking-stick assisted ambulation upon discharge. At six months, one no longer required a walking aid and was preparing to return to work; the other continued to use a cane.

## Conclusion

These cases highlight the heterogeneity of SCD and the vital role of intensive, multidisciplinary rehabilitation in functional recovery and reintegration in metabolic myelopathies.

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