

## DIFFERENTIATING SPASTICITY-RELATED PAIN - A CASE REPORT OF HEREDITARY SPASTIC PARAPLEGIA

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### Background

Hereditary Spastic Paraplegia (HSP) refers to a rare group of highly heterogeneous neurodegenerative diseases whose hallmark is progressive spasticity and weakness of the lower limbs. When evaluating patients with HSP, clinicians should also account for non-motor symptoms such as bladder disturbances, depression, fatigue and pain. In the presence of other comorbid conditions, such as respiratory infections, it can be hard to distinguish whether pain is spasticity-related or due to other conditions, requiring an appropriate evaluation together with good clinical awareness of HSP's symptoms.

### Case report

A 32-year-old man with diagnosed HSP type 7, who had lost medical following in Neurology and Physical and Rehabilitation Medicine (PRM), was hospitalized with complicated pneumonia with posterior, left-sided pleural effusion (PE) confirmed by CT scan. Despite appropriate treatment, the patient complained of left-sided pain, attributed to pleuritic inflammation. At the PRM internal consultation, marked spasticity of the lower limbs and lower back muscles was noted. The patient also presented coughing bouts that aggravated the pain in the left back, preventing effective coughing, which raised suspicion for other causes of pain. The patient started a rehabilitation program during hospital stay, together with baclofen progressive titration to optimal dosing, with resolution of the pain complaints. Furthermore, the patient was referred to the PRM consultation for lower limbs spasticity focal treatment with botulinum to avoid side effects of high doses of baclofen and appropriate follow-up.

### Conclusion

A lot of medical conditions present with pain. In this case, a patient with pneumonia with PE presented with pain, most likely of pleuritic cause. However, when dealing with patients with HSP, spasticity-related pain should also be considered. This case highlights the importance of recognizing pain patterns associated with spasticity, which in turn leads to more effective symptomatic management, especially when pain persists after treatment of the presumed alternative cause.

**Keywords:** Hereditary Spastic Paraplegia; Spasticity; Pain