

# Focused neurological assessment to differentiate essential tremor from functional tremor

## *Exame neurológico direcionado para o diagnóstico diferencial de tremor essencial e tremor funcional*

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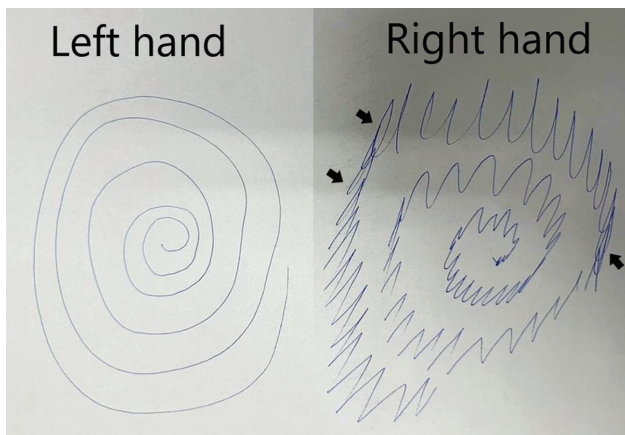
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A 64-year-old female patient presented with a 20-year history of right upper limb tremors, significantly affecting her daily tasks. She was previously diagnosed with essential tremor and reported no response to propranolol (maximum tolerated dose of 80 mg/day). The neurological examination revealed amplitude and frequency variability, distractibility (► **Video 1**), entrainment, and distinctive looping patterns in the Archimedes spiral drawing and handwriting (► **Figure 1**) – a phenomenon known as the “stretched slinky sign,” described in a previous study as distinctive of functional

tremor, although it has not been formally assessed in control groups.<sup>1</sup> The diagnosis of functional tremor was made based on these positive signs, emphasizing the importance of a focused neurological examination to distinguish it from other tremor disorders.<sup>2,3</sup>



**Figure 1** Archimedes' spiral drawing of a patient with functional tremor showing frequency changes and the distinctive “stretched slinky sign.” Arrows indicate the areas of looping.

### Video 1

Focused neurological assessment of functional tremor. The Archimedes spiral drawing with the right hand reveals variability in tracing frequency and the distinct looping pattern, a phenomenon known as the “stretched slinky sign.” The left hand is unaffected. When tasked with writing her name, the patient also demonstrates looping patterns. When instructed to keep the pen close to the paper while counting from 20 to 1, tremor frequency and amplitude variations are evident, indicating distraction during cognitive tasks. There is an absence of resting, postural, and intentional tremors. (Available at: <https://www.arquivosdeneuropsiquiatria.org/wp-content/uploads/2024/06/ANP-2024.0097-Video.mp4>) Online content including video sequences viewable at: <https://www.thieme-connect.com/products/ejournals/html/10.1055/s-0044-1788267>.

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#### Authors' Contributions

TTS, IVB, ISF, and JBP: conceptualization or design of the work, data acquisition, analysis or interpretation, and writing or reviewing the manuscript. All authors approved the final version of the manuscript and agree to be responsible for all aspects of the work.

#### Conflict of Interest

The authors have no conflict of interest to declare.

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