Another Case of “Shopping Bag” Tremor: A Difficult to Classify Action Tremor

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Keywords: Tremor, isometric tremor, task-specific tremor

Citation: Robakis D, Louis ED. Another case of “shopping bag” tremor: A difficult to classify action tremor. Tremor Other Hyperkinet Mov. 2014; 4. doi: 10.7916/D8PV6HVJ

To the Editor:

Zesiewicz et al.1 reported an unusual case of unilateral wrist tremor that occurred while the patient carried a weighted object (e.g., a shopping bag) or made a fist, and suggested that this could be a form of isolated isometric tremor. Here we report another patient who presented with a phenomenologically similar tremor.

A 70-year-old right-handed female presented to the Center for Parkinson’s Disease and Other Movement Disorders at Columbia University Medical Center. Her chief complaint was hand tremor. By history, the tremor occurred in its most extreme form while holding a shopping bag in either hand, but particularly in the left. She noted that if the bag was empty or too heavy, tremor would not occur; hence, the tremor would commence only with a lightly weighted bag (approximately 1–2 pounds). She also noted mild hand tremor while performing other activities of daily living (e.g., bringing a spoon to her mouth or holding a newspaper), but it was the “shopping bag” tremor that was most severe and distressing. This distressing tremor had been present for the past 3–5 years, although a mild bilateral kinetic tremor of the hands had preceded it by 15 years. Her family history was significant for one maternal uncle with Parkinson’s disease and one niece with mild positional hand tremor. Her past medical history was significant for diabetes mellitus and asthma, as well as mild depression in the past that had been responsive to pharmacotherapy. Her medications included metoprolol 7.5 mg bid, gabapentin 200 mg bid, venlafaxine ER 37.5 mg qd, and buspirone 7.5 mg bid. The patient was not interested in taking medications for the tremor.

She signed an informed consent for a videotaped neurological examination. She was examined with her arms at rest (lying, seated, standing, and walking), and there was no visible tremor.

When a weighted shopping bag was placed in either the right or left hand, a moderate to marked amplitude tremor developed, mainly...
involving flexion–extension movements at the metacarpophalangeal and wrist joints. The tremor did not subside until the bag was removed. For maximal tremor, her hand had to be partially open, forming a “J” shape (Video Segments 1–5), while loosely grasping the handle of the bag. If she clenched a tight fist around the handle of the bag, the tremor lessened considerably. When she made a tight fist in either hand (no shopping bag), a very mild version of the tremor emerged. The tremor did not disappear or change in character with distraction, nor was it entrainable. The examiner could not reproduce it with suggestion. Spinal, bringing a cup to her mouth, and pouring water elicited only a mild kinetic tremor. There was no head, voice, or jaw tremor. The Unified Parkinson’s Disease Rating Scale (UPDRS) revealed normal facial expression, normal gait and arm swing, absence of axial bradykinesia and normal tone. Finger taps on the left were not as fast as on the right, but she was right-handed, there was no decrement and all other rapid alternating movements were symmetric and normal. There was no dystonic posturing of her hands during arm extension and no torticollis or blepharospasm. The remainder of her neurologic examination was unremarkable.

This case represents another example of a tremor that is produced most prominently by the action of holding a loosely weighted bag. The tremor is not neatly classifiable into the existing classification schemes for tremor, as it shares characteristics with both task-specific and isometric tremor. Task-specific tremors appear during specific activities, most commonly during writing but also during diverse activities such as playing an instrument, golfing, bowling, or performing surgery. Isometric tremor occurs in situations where antagonist muscles contract synchronously against a rigid resistance, and includes orthostatic tremor, where the floor serves as the counterpart against which the muscles of the lower extremities contract. Isometric tremor can occur in isolation or as a symptom of any other tremor disorder. In patients with Parkinson’s disease, for example, an isometric action tremor is often inducible by fist clenching.

The tremor described here does not completely fulfill the criteria of task specificity. One key feature of task-specific tremor is the skilled nature of the task, which requires the use of an instrument or tool. Risk for task-specific movement disorder increases with degree of skill. Carrying a shopping bag involves no particular expertise. The situational specificity of the tremor is related to other factors, namely the weight of the bag and position of the upper limb, which must fall within narrow ranges to elicit the tremor. These factors are closely tied to isometricity.

Another feature of task-specific tremor is intent to perform the task. Assumption of the posture in preparation for activity, such as holding a pen, is not sufficient to induce tremor; rather, the tremor begins when the decision is taken to start the activity, which may not coincide with movement onset. In the current case, tremor continued at the same rate regardless of the patient’s attention to the activity, and therefore required no cognitive engagement. Merely assuming the correct posture was also insufficient. Resistance in the form of weight on the fingers or, to a lesser degree, force from her own clenched fist, was necessary to reproduce the tremor. In our opinion, the tremor most closely resembles a focal isometric tremor, despite some task-specific features.
rather than exacerbates the tremor, and serves as the basis for the recommendation that patients with essential tremor use weighted utensils when eating.

This and Zesiewicz’ case suggest a heretofore unrecognized subtype of isometric tremor. It is important for clinicians to recognize it as distinct from other tremor disorders such as those typically seen in patients with essential tremor or Parkinson’s disease. Treatment can be targeted towards the associated tremor disorder if one is identified, but in its isolated form, the optimal treatment remains unknown.

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