Commentaries

Non-motor Movement Disorders: Internal Tremor

I saw three patients in one week who had very similar symptoms, all "non-organic" in the sense that I had no physiological explanation for them and no accompanying objective signs. It got me wondering once again about psychogenic versus non-psychogenic disorders and that gray zone that is constantly expanding for me between neurology and psychiatry.

The patients' symptoms are simple. They feel movement in body parts when they are not moving. Two patients, a middle-aged man and a middle-aged woman, had felt that their head "wobbled" but when they looked in the mirror it was not moving. When they asked their spouses and friends, no one had noticed any movement even during the time when the patients felt their heads wobbling. The third patient, a middle-aged woman, experienced "internal tremors" of her chest and abdomen, as though she was shaking inside, but she saw no evidence of this, nor did her close associates. The syndromes had been present between one and five years. All patients had normal neurological exams.

A colleague wrote a paper in the 1990s called, "internal tremors", which described this syndrome in people with **Parkinson's disease (PD).** I haven't found any follow-up papers; as best I can tell, its prevalence in the general population is unknown. I have found "internal tremor" to be quite common in PD, although I haven't studied it. People with PD sometimes report that they feel tremors; but when they look at the body part, it's not shaking. The tremors may occur in parts of the body that actually do tremble from the PD, and the patients cannot tell simply by feel if the hand is shaking or not. They also feel tremors in parts of their body that cannot shake, like their abdomen or chest. A rare patient will describe vibrations in their internal organs. In the one paper describing the syndrome, there was a high incidence of anxiety in these patients, but it wasn't 100%, and in my experience that can't explain everything. After all, anxiety is common in the general population, and is much increased in PD.

Until I read the report on internal tremor I had thought that this sensation was a *forme fruste* of the resting tremor of PD. I had not picked up on the fact that many patients felt tremors in their chest or abdomen. I was aware of the disconnect between the perception of tremor and the actual thing, and had thought that an EMG would show that there was indeed a tremor but it was simply subclinical. Patients are, after all, usually better able to sense what's going on in their bodies than the doctor (not always true, however, especially in the movement disorders field). But it's become clear to me over the last decade that the perception of internal tremor was not premonitory. It did not metamorphose into the real thing. It was an unrelated phenomenon.

Now, having encountered a "slew" of cases, I am forced to wonder how common this is. I see only the patients who are worried that their perception of movement represents the beginning of PD. I am sure that some of these patients who were not referred are thought to have a psychogenic disorder, and, of course, that's why I'm writing this. What does it mean to have a psychogenic *perception*? Is this an oxymoron?

Restless legs is a syndrome that cannot be confirmed by physiological testing, and was, for many years deemed largely psychiatric in origin, until the association with periodic leg movements of sleep was made, which, occurring during sleep, could not be due to psychogenic forces and therefore must be organic in nature. Then, of course, genes were found which explain the problem, and the symptoms responded much better to tiny doses of dopamine agonists than to placebo, all supporting an organic explanation.

Phantom limb pain is a well-accepted syndrome, and there are occasional case reports of phantom limb movement disorders, that is, the perception of a dystonic or tremulous limb which is no longer attached to the body.

Some of these disorders have physiological correlates, changes in fMRI or other measures of brain activity. Some may not have been studied. And if a physiological correlate were found who's to say what's chicken and what's egg? While I am sure there are several questions that can be asked concerning classification of these syndromes, one is, what's the difference between feeling movement and having an actual movement if I believe the movement is not physiologically generated? We have fairly good criteria and fair agreement among movement specialists about what constitutes a psychogenic tremor but what would constitute a "psychogenic" perception of tremor, or "tremor sans tremor?" This would be a violation of all fundamental philosophical concepts. What if we were able to "cure" a patient of psychogenic tremor but the perception of tremor remained? This would be an "internal tremor" but how would it be classified? How would it be treated? Classification in my field determines treatment. Organic disorders get drugs or surgery; psychiatric disorders get some form of talk therapy.

At this point I've actually been quite helpful to the patients with internal tremor by reassuring them that this is not a *forme fruste* of PD or some other disorder, and that I have indeed seen this before in several people. Luckily, since this does occur in PD, I've followed many people with the symptom for many years and know that it doesn't lead to anything bad. It doesn't even seem to get worse and has no correlation with the typical tremor of PD. Luckily all of the patients have been so relieved that none have expressed interest in having it treated. I'm not sure what I'm going to do when the first person tells me that it's driving him insane and that I have to do something about it.

– Joseph H. Friedman, MD

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