

Clinical Features of Tardive Dyskinesia

[MUSIC PLAYING]

LESLIE LUNDT: Hello, and welcome to a roundtable discussion of the clinical features of tardive dyskinesia. I'm Leslie Lundt, psychiatrist and medical director at Neurocrine Biosciences. I'm joined by Jeremy Schreiber, psychiatric mental-health nurse practitioner at Coleman Professional services; Dr. Carlie Tanner, professor of neurology at the University of California, San Francisco; and Dr. Andrew Cutler, chief medical officer at Meridian Research.

Today, we will highlight basic clinical characteristics of tardive dyskinesia by discussing the condition's phenomenology, potential symptom severity, and clinical course. Before we begin, would you please provide some brief background information about tardive dyskinesia, Dr. Tanner?

CARLIE TANNER: The term "tardive dyskinesia" refers to abnormal involuntary movements or dyskinesia manifesting in a delayed or tardive manner after prolonged use of Dopamine Receptor Blocking Agents, or DRBAs.

Tardive Dyskinesia, or TD, is defined as involuntary athetoid or choreiform movements. Athetoid movements are slow, sinuous, and continual, whereas choreiform movements are rapid, jerky, and nonrepetitive. By definition, the involuntary movements must develop in association with prolonged exposure to antipsychotics or other DRBAs. As stated, antipsychotics, also known as neuroleptics, are DRBAs. DRBAs are used to manage psychiatric disorders, such as psychosis, depression, and bipolar disorder, as well as gastrointestinal problems.

ANDREW CUTLER: And when it comes to timing, I think clinicians should know that symptoms may develop after a shorter period of medication use in older patients. In some patients, dyskinesia may arise and/or persist after medication discontinuation, change, or decrease in dose. Another movement disorder called neuroleptic withdrawal-emergent dyskinesia can also arise after change or discontinuation of antipsychotics and usually lasts less than four to eight weeks. Dyskinesia that persists longer than this period is considered tardive dyskinesia. TD movements can involve the tongue, lower face and jaw, and extremities, as well as the pharyngeal, diaphragmatic, or trunk muscles.

LESLIE LUNDT: Thank you both. That overview of TD is a helpful starting point for our discussion today. Now let's dive a little deeper. How can clinicians recognize TD based on its clinical presentation?

JEREMY SCHREIBER: That's a great question because identifying a patient who potentially has TD is the first step in determining an accurate diagnosis. It is important to understand the risk factors for developing TD. The most important risk factor is the prolonged exposure to antipsychotic or other DRBAs. By definition, this is the cause of TD.

CARLIE TANNER: Also important is recognizing the clinical characteristics. TD is characterized by involuntary, nonrhythmic, repetitive, purposeless hyperkinetic movements.

LESLIE LUNDT: What parts of the body are typically affected by TD?

JEREMY SCHREIBER: As a matter of fact, TD can present essentially in any part of the body, but patients and health-care providers may initially notice facial phenomenology involving the tongue jaw, lips, cheeks, or eyes. Other involuntary movements can include tongue curling, twisting, and protrusion, or lip smacking, licking, puckering, and pursing, or chewing, and lateral jaw movements, or grimacing and bulging of cheeks, or increased blink frequency and tight eyelid closure.

ANDREW CUTLER: This is consistent with the fact that although TD can present generally in any part of the body, health-care providers are likely more familiar with what they consider to be classic TD, in which the cheeks, mouth, and tongue are mainly involved, otherwise known as the oro-bucco-lingual features.

[VIDEO PLAYBACK]

For example, here we see the dyskinesia of the mouth, cheeks, and tongue are prominent. Note the repetitive and seemingly coordinated lip smacking or pursing, chewing, and tongue protrusions.

JEREMY SCHREIBER: We also know that dyskinesia of the legs can be involved—

[VIDEO PLAYBACK] --which can manifest as involuntary, repetitive foot tapping and toe movements in the seated positions and knee bending in the standing position.

CARLIE TANNER: And we know that TD can affect other parts of the upper body and extremities. Let's use some examples to demonstrate.

[VIDEO PLAYBACK]

Here we see involvement of the shoulder, along with the neck, as manifested by head nodding.

This next example depicts a similar involvement of the neck, shoulder, and hands. Note that both examples involve the face.

Finally, in this last example, we can see bilateral, frequent, high-amplitude, involuntary dyskinetic movements of the toes, as well as classic oro-buccal-lingual dyskinesia.

LESLIE LUNDT: So we've covered involuntary, dyskinetic movements of the face, upper body, and extremities. What about other parts of the body?

ANDREW CUTLER: As noted before, TD may manifest in pharyngeal and diaphragmatic muscles.

[VIDEO PLAYBACK]

TD can also involve trunk muscles as seen in this example. It usually manifests as involuntary, repetitive rocking and swaying.

LESLIE LUNDT: Based on the description of TD and the examples we've seen, it appears that TD symptoms may vary from patient to patient. Is that true?

CARLIE TANNER: Yes, absolutely.

As we saw in the previous examples, various parts of the body can be involved in different combinations. Moreover, the severity of TD movements can range from, quote unquote, "mild" and almost unnoticeable to severe.

ANDREW CUTLER: Right. And such symptom characterizations should be made within the broader clinical presentation of patients. This is important because TD may impact patients physically, emotionally, and socially and can lead to social isolation. Even a quote unquote, "mild" form may impact a patient, especially if he or she is more aware.

JEREMY SCHREIBER: Higher-functioning patients may be impacted by mild symptoms because they notice them. Conversely, caregivers or family members of lower-functioning patients may voice concern even before the patient himself expresses concern. Generally, underlying psychiatric conditions and awareness of abnormal involuntary movements may contribute to the variation in a patient's subjective experience of symptom severity, further underscoring the importance of reviewing the full clinical context when characterizing TD severity.

LESLIE LUNDT: So can we look at some examples of the differences in symptom severity?

ANDREW CUTLER: Sure. Let's look at examples of TD in the facial region.

[VIDEO PLAYBACK]

Here we see that symptoms involving the lips and the perioral area can manifest as intermittent, low-amplitude lip pursing and pouting. In a more pronounced manifestation such as this one, you'll notice nearly continuous movement in the form of eyebrow raising, grimacing, forced eyelid closure, squinting, and increased blinking.

CARLIE TANNER: We can also note symptom severity variation in an example of TD that affects the tongue, in which symptoms can manifest as intermittent movement when the mouth is closed. In more pronounced tongue manifestations, continuous tongue movement will be seen throughout the mouth with occasional protrusions out of the mouth.

LESLIE LUNDT: Knowing more about the possible TD manifestations helps distinguish between the variations and symptom severity. Now let's look at the key aspects of the clinical course of TD. How soon after starting antipsychotic therapy do patients develop symptoms?

JEREMY SCHREIBER: Well, that can vary as well. Patients may develop TD symptoms after being on DRBAs for a few months to a few years.

ANDREW CUTLER: But we know that even if someone starts and stops antipsychotic therapy without experiencing symptoms, they can develop symptoms after treatment discontinuation. And that's because Antipsychotics can suppress or mask TD, meaning that symptoms may become apparent only after therapy is discontinued or if therapy is switched or reduced in dose. Importantly, symptoms can wax and wane.

LESLIE LUNDT: It's interesting that symptoms can wax and wane. What causes such changes over time?

CARLIE TANNER: We know that severity can change over time due to patient lifestyle factors. For example, symptoms may decrease in severity due to relaxation or sleep and increase because of distraction or emotional stress.

LESLIE LUNDT: Thank you. In closing, would you please highlight the key takeaways for the TD clinical features, Dr. Cutler?

ANDREW CUTLER: Sure. In conclusion, TD is characterized by involuntary athetoid or choreiform movements, associated with exposure to neuroleptics or other DRBAs. The involuntary movements are delayed in manner, typically appearing after at least a few months of DRBA exposure and can be unmasked after DRBA discontinuation, dose reduction, or a change in medication. Anatomically, TD can affect any part of the body. But clinicians are likely most familiar with the involuntary facial movements, known as the classic oro-buccal-lingual features. And discreet observation of patients upon arrival to the doctor's office is important in recognizing TD because patients may not be willing to discuss symptoms or may even try to hide them. Finally, healthcare providers should note that TD can wax and wane, and the broader clinical context of patients should be considered because severity can vary significantly due to several factors.

LESLIE LUNDT: Thank you, Dr. Cutler, Mr. Schreiber, and Dr. Tanner, for your input. And thank you for joining the roundtable discussion of the clinical features of tardive dyskinesia.