Tardive dyskinesia (TD) vs drug-induced parkinsonism (DIP): Differential diagnosis

Appropriate management requires differentiating between TD and DIP

TD



DIP

30.0% of patients treated with FGA monotherapy¹

20.7% of patients treated with SGA monotherapy¹

7.2% of patients treated with SGA monotherapy (no prior FGA exposure)¹



20% to **35%** in patients taking APDs (FGAs and/or SGAs)²

Dopamine blockade upregulates dopamine receptors and **increases** dopamine signaling²



Dopamine blockade reduces dopamine signaling²

Delayed–occurs **months or years** following administration of APD therapy³

Elderly persons may develop symptoms sooner⁴



Timing of onset

Acute–occurs within **days or weeks** following administration of APD therapy²

Acute:

may fail to improve or may induce withdrawal dyskinesia³

Chronic:

may reduce chance of worsening³



Decrease antipsychotic dose/potency

May improve or resolve symptoms^{2,3}

APD=antipsychotic drug; FGA=first-generation antipsychotic; SGA=second-generation antipsychotic.



Evaluating patients at risk of TD or DIP

The wrong treatment could lead to a worsening of symptoms

It is important to differentiate between TD and DIP, since treating either condition with a therapy not specifically indicated for it could lead to a worsening of symptoms.

There are many factors that comprise the differential diagnosis for TD. They include:

- Prevalence
- Mechanism
- Timing of onset
- Decrease antipsychotic dose/potency



References: 1. Carbon M, Hsieh CH, Kane JM, Correll CU. Tardive dyskinesia prevalence in the period of second-generation antipsychotic use: a meta-analysis. *J Clin Psychiatry.* 2017;78(3):e264-e278. **2.** Ward KM, Citrome L. Antipsychotic-related movement disorders: drug-induced parkinsonism vs. tardive dyskinesia-key differences in pathophysiology and clinical management. *Neurol Ther.* 2018;7(2):233-248. doi: 10.1007/s40120-018-0105-0. **3.** Waln O, Jankovic J. An update on tardive dyskinesia: from phenomenology to treatment. *Tremor Other Hyperkinet Mov (N Y).* 2013;3:1-11. **4.** American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Arlington, VA: American Psychiatric Publishing; 2013.

