SWLA BEHAVIORAL HEALTH

TARDIVE DYSKINESIA

FOR PATIENTS AND FAMILIES

Tardive dyskinesia (TD) is a disorder of abnormal involuntary movements produced by long-term use of antipsychotic (also called **neuroleptic**) medications. As the term *tardive* implies, the resultant disorder is a delayed adverse reaction from prolonged exposure to antipsychotic medications. The abnormal movements (dyskinesia) are involuntary and irregular. They usually involve the mouth, tongue, and, less commonly, arms and legs. Often TD involves more than one area of the body. The most commonly observed movement abnormalities are seen with the tongue (darting, writhing, and twisting movements and repeated protrusions) and fingers and hands ("pill-rolling" and hand clenching). Movements of the mouth include chewing, lip puckering, and lateral jaw movements. As the dyskinesia becomes more severe, the patient may have twisting of the trunk, thrusting of the pelvis, respiratory grunting, and arm and leg movements. When the movements are rapid, jerky, nonrepetitive, and seemingly purposeful, they are called **choreiform**. When the movements are rhythmic, continuous, slow, sinuous, and without purpose, they are called **athetoid.** A combination of choreiform and athetoid movements is called **choreoathetoid** movements.

Long-term use of antipsychotic medications may also cause a chronic disorder of muscle tone, called **tardive dystonia**. The involuntary slow contraction and twisting of particular muscle groups produce dystonic movements and abnormal postures. The condition may range from mild to severe, and in more severe cases, tardive dystonia may be painful, bizarre, and debilitating.

The severity of TD may range from mild to moderate tongue and finger movements to severe, disfiguring, and incapacitating movements of the extremities. In mild cases of TD, the visible movements are merely seen as peculiar tics and restlessness, but in severe cases the severity of abnormal movements may cause social or functional problems.

RISK OF TARDIVE DYSKINESIA

The risk of TD can be estimated statistically from studies with patients exposed to antipsychotic medications, but it is impossible to predict which patients will develop dyskinesia from antipsychotics. However, there are certain risk factors associated with developing TD from exposure to antipsychotic medications.

- *Length of treatment*. The longer a patient is treated with antipsychotic medications, the greater the risk of developing TD. The best available data suggest that for the first 5 years of treatment, on average, there is about 4%–5% per year cumulative risk of developing TD. Some patients may develop TD within less than 1 year of exposure to antipsychotics, but for the majority of patients the risk is correlated with duration of antipsychotic treatment over many years.
- *Age and sex.* The risk of TD increases with age—in terms of not only incidence but also severity and persistence of abnormal movements. The age of the patient is perhaps the single most important risk factor. In elderly patients who have not been previously treated with antipsychotics, TD generally develops more rapidly and at lower doses than in younger patients. Moreover, women appear to be at greater risk than men of similar age and cumulative drug exposure, and they are also more likely to develop more severe forms of dyskinesia.
- *Type of antipsychotic medication*. The older, first-generation antipsychotics are associated with a higher incidence of TD than the newer, second-generation antipsychotic medications. From clinical studies, it is well established that the first-generation antipsychotics, such as **chlorpromazine** (Thorazine), **haloperidol** (Haldol), **fluphenazine** (Prolixin), and others, induce TD. However, it is not clear if one anti-

psychotic is more likely than another to produce TD. The second-generation antipsychotics, however, may have a lower incidence of TD. In over 30 years of experience with **clozapine** (Clozaril), the first of the second-generation antipsychotics, it rarely caused TD. The risks of developing TD from other second-generation antipsychotic medications—**aripiprazole** (Abilify), **olanzapine** (Zyprexa), **quetiapine** (Seroquel) **risperidone** (Risperdal), and **ziprasidone** (Geodon), all relatively new antipsychotic medications—are not presently known. However, these agents are expected to have a similarly low risk for TD.

- *Other associated risk factors.* Patients with a mood disorder (e.g., bipolar disorder or major depression) appear to be at greater risk for developing TD when treated with antipsychotic medications.

TREATMENT ISSUES

Because TD is caused by chronic use of antipsychotic medications, cessation of these medications, if possible, is the best course of treatment. In fact, up to one-third of patients who develop TD may become symptom-free within 3 months of discontinuing antipsychotic medications, and up to 60% of patients who discontinue antipsychotic medications for 5 years may see their symptoms go into remission.

Unfortunately, for most patients discontinuation of their antipsychotic medication is not a viable option, since most patients will relapse shortly without treatment. Various medications have been use to treat TD with equivocal success. **Antiparkinson medications** (e.g., Cogentin), used to treat Parkinson's disease and movement disorders induced by antipsychotic medications, are not effective for treating TD. In fact, these medications often make TD worse. **Clonidine** (Catapres) and **propranolol** (Inderal)—commonly used antihypertensive medications and widely used in other areas of medicine—may attenuate the abnormal movements for some patients but are generally not successful for treating most cases of TD. High doses of **vitamin E** (up to 1,600 IU/day) may help control the abnormal movements to some extent, but its benefit is inconclusive. Patients with TD should be offered a trial, since the use of vitamin E is relatively benign.

Many physicians may use clozapine to suppress the abnormal movements of TD. In fact, clozapine may have some benefit in treating TD. In several studies, when patients with TD were switched to clozapine, some had remarkable improvements of their abnormal movements.

Currently, physicians generally use the second-generation antipsychotics as first-line treatment for psychotic disorders. As these newer medications replace the older antipsychotics, we may see the incidence of TD decline dramatically in the future.

If you have any questions about this handout, please consult your physician.

SUPPORT AND ADVOCACY GROUPS

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Phone: (800) 829-8289
Web site: www.narsad.org
A donor-supported organization whose mission is to raise funds for scientific research on psychiatric brain disorders.

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Seeks to promote education and understanding of tardive dyskinesia and tardive dystonia.