Tourette Syndrome

Tourette syndrome is a disorder manifested by motor and phonic tics with onset during childhood. Tics are the clinical hallmark of this condition. Tics are brief, sudden, nonrhythmic, intermittent movements (motor), or utterances (phonic). Diagnosis requires the onset of symptoms before the age of 18. Symptoms should last at least one year. Treatment should begin with psychoeducation and cognitive behavioral therapy. Patients with persistent symptoms can be treated with atypical or typical antipsychotics, tetrabenazine, and alpha-2 agonists.

PLAY PICMONIC

Characteristics

Motor and Vocal Tics

Tics with motor and vocal microphone

Tics are the clinical hallmark of this condition. Tics are brief, sudden, nonrhythmic, intermittent movements (motor), or utterances (phonic). Both motor and vocal tics are needed for the diagnosis of Tourette syndrome.

Onset Before Age 18

18-Cake

Onset of symptoms before the age of 18 is one of the diagnostic criteria of Tourette syndrome. Symptoms must also not be due to other underlying medical conditions or substance use. There is also a male predominance to this syndrome.

> 1 year

> 1-wand Calendar-year

To meet the diagnosis of Tourette syndrome, symptoms (motor and vocal tics) should be present at least one year.

Associations

Obsessive-Compulsive Disorder (OCD)

OCD-tiles

Obsessive-compulsive disorder (OCD) is a severe, debilitating and often chronic disorder characterized by repetitive, disconcerting thoughts and obsessions that are outside a patient's control and can interfere with their daily functioning. Patients with OCD are more likely to also suffer from Tourette syndrome.

Attention Deficit Hyperactivity Disorder (ADHD)

AD-HeaD with ADHD

Attention Deficit Hyperactivity Disorder (ADHD) is a condition characterized by inattention and distractibility. Individuals with attention deficit hyperactivity disorder (ADHD) exhibit impulsive, unpredictable, and hyperactive behavior. The incidence of Tourette syndrome is higher in patients who suffer from ADHD.

TREATMENT

Cognitive Behavioral Therapy

Cog Behavioral Therapist

Cognitive behavioral therapy (CBT) is a type of psychotherapy based on analyzing and reforming maladaptive thoughts that are contributing to emotional and behavioral distress.

In people with Tourette syndrome, cognitive behavioral therapy helps to normalize activity in the supplementary motor region of the brain by utilizing exercises targeting muscles associated with motor tics. Habit Reversal Training (HRT) and Comprehensive Behavioral Intervention for Tics (CBIT) are components of CBT.

High-Potency Antipsychotics

High Pot Ant-Tie-Psychiatrist

High-potency typical antipsychotics (e.g. haloperidol, fluphenazine, pimozide) can be used for the treatment of Tourette syndrome. These drugs work by blocking D2 receptors in an effort to attenuate dopamine-mediated motor pathways. Unfortunately, they have a high side effect profile and can lead to extrapyramidal symptoms (e.g. tardive dyskinesia) and neuroleptic malignant syndrome.

Atypical Antipsychotics

A-Tipi Ant-Tie-Psychiatrist

Atypical antipsychotics are a class of tranquilizing drugs used to treat psychiatric conditions and include risperidone, olanzapine, clozapine, and ziprasidone. Common indications for these drugs are the positive and negative symptoms of schizophrenia, mania, Tourette syndrome, bipolar disorder, OCD and depression. These drugs have less side effects than their typical counterparts. Risperidone is commonly used for Tourette syndrome.

Alpha-2 Agonists

Afro (2) Tutu Dragonist

This class of drugs works at the ⊟2 adrenergic receptor, a target of catecholamines in the central and peripheral nervous system. Alpha-2 agonists that treat both tics and ADHD are guanfacine and clonidine.

Tetrabenazine

Tetris-bonsai

Tetrabenazine depletes presynaptic dopamine and serotonin stores as well as blocks postsynaptic dopamine receptors. In clinical studies, tetrabenazine has been found to be effective in patients with Tourette syndrome and is one of the first-line medications.