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I recently met an adult with TS who was just diagnosed. I was under the impression that TS had to be present

during childhood. Are there any exceptions to this? What causes an adult onset of TS or tics? Can this happen due to taking certain medications or could it be related to another medical condition?

Although Tourette Syndrome is considered a childhood-onset disorder, it often persists into adulthood. In a recently published study done to draw attention to and correct the common misconception that TS only occurs in children, the mean age at initial visit of 43 adult TS patients was 59 years. The adult patients were compared to 100 children with TS, who at the time of their visit to Baylor College of Medicine Movement Disorder Clinic, were about 13 years old. Of the adult TS patients, 35 (81.4%) had a history of tics with onset before age 18, with 8 (18.6%) reporting first occurrence of tics after age 18 (mean age at onset 38 years). Only 2 (4.7%) patients reported tic onset after age 50. During the course of TS in the adult patients, phonic and complex motor tics, self-injurious behaviors, and ADHD gradually improved, but facial, neck and trunk tics persisted. Additionally, adults with TS were more likely to exhibit substance abuse and mood disorders compared to children with TS. Although adult TS largely represents re-emergence or exacerbation of childhood-onset TS, there are certain causes of tics that start in adulthood that a neurologist must consider and exclude. These include certain drugs, such as amphetamines and cocaine, and various drugs (also called neuroleptics) used for psychiatric and gastrointestinal disorders (so-called "tardive tics"). Other causes of adult tics include Huntington disease, neuroanthocytosis (a human brain disease) and a variety of other neurological disorders. Published reports of secondary tics (also called "Tourettism") are referenced in this study: *Jankovic J, Gelineau-Kattner RN, Davidson AL Tourette's syndrome in adults. Mov Disord 2010;25:2171-5.*

I come from a family with a history of drug abuse. I have TS and am thinking about taking medications to help reduce my tics, but I am concerned about the side effects. Are any of the medications that are being used for treatment of TS addictive and can they lead to substance abuse in adulthood?

There are many medications used for the treatment of tics, but none that I use in my practice are addictive and, in my opinion, do not lead to substance abuse. Most medications used in the treatment of tics block the activity of the brain chemical dopamine or deplete dopamine. If the tics are localized to one area such as the eyes, causing excessive blinking, or the neck, causing head jerking, then botulinum toxin (e.g. Botox) injections into the affected muscles may be useful. The advantage of such localized treatment is that it is not associated with sedation, weight gain or some other general side effects that are sometimes associated with oral medications. For a list of medications used in the treatment of TS (and related movement disorders) you may review "A Guide to Tourette Syndrome Medications" by Dr. John Walkup, available from the TSA.

I have read that there is a reduction in tics for many people with TS as they approach early adulthood. I have recently also come across some information about Cognitive Behavioral Intervention for Tics (CBIT) and wonder if people with TS have a reduction because they are able to tell when their tics are coming and attempt to control them. Can it be that some people just learn to manage their tics better as they get older?

It has been well recognized that tics often spontaneously improve in early adulthood and in some cases go into a complete remission, although occasionally they may recur several years or decades later. This phenomenon of spontaneous remission in TS, although not well understood, is part of the natural history of the disorder and is probably not due to better ability to willfully control the tics.

Are the drugs prescribed for children with TS different from the ones prescribed for adults with TS?

We generally use similar medication in adults as we use in children. I do tend to use more tetrabenazine and topiramate in adults than in children as these drugs seem to be better suited for and better tolerated in adults. Note however, other doctors may use a different repertoire of drugs and so one should always discuss the best treatment option with their doctors.

As a child I was diagnosed with TS, but as I got older gradually my tics started to go away. I have not had tics for several years and am starting to wonder if I was misdiagnosed. If so, can a misdiagnosis of TS be removed from my medical records?

Doctors do not generally alter their records but they often amend them with new information, such as a change in symptoms. Just because you no longer experience tics it does not mean that you don't have TS. It may very well be that your tics are now in remission and may at some point recur as discussed in the previous question.

I have an adult friend with TS who is doing great, but I went with her to a support group meeting and realized that many people there also had depression. Is this something that can be associated with TS or is it possible that the depression can stem from the impact that the TS is having on their lives?

Mood changes often accompany tics and other symptoms of TS. There are many other behavioral comorbidities such as attention deficit with or without hyperactivity, obsessive compulsive disorder, impulse control problems and other behavioral symptoms. These symptoms are usually not due to reaction of the patient to the burden of TS, but are part of the disorder. Counseling and medications are often effective in controlling these psychiatric comorbidities. For further information, please refer to this study: *Jankovic J, Kurlan R. Tourette Syndrome: Evolving concepts. Mov Disord 2011.* □