The information in this column is not intended as a definitive treatment strategy but as a suggested approach for clinicians treating patients with similar histories. Individual cases may vary and should be evaluated carefully before treatment is provided. The patient described in this column is a composite with characteristics of several real patients.

Tic-related obsessive–compulsive disorder

Tamara Pringsheim, MD; John Piacentini, PhD

A 12-year-old girl was referred for treatment-refractory obsessive–compulsive disorder (OCD). She had a history from age 6 of tics showing a waxing and waning pattern. Tic-related disability was minimal and had not warranted medical intervention. The patient presented initially for medical attention after a 4-month history of gradually escalating obsessive–compulsive behaviours. Fearing harm coming to her family, she engaged in multiple compulsive behaviours, including repetitive touching of objects, cleaning rituals, turning lights on and off ritualistically, and ordering/arranging household objects. At presentation, compulsions occupied 80% of her waking hours. The patient reported that she realized her compulsions were irrational but was unable to resist urges to do them until they felt "just right." She was put on a waiting list for cognitive behavioural therapy (CBT) and started treatment with fluoxetine, titrating to 40 mg/d. Following 12 weeks of treatment with no improvement, she was switched to sertraline 200 mg/d, which likewise yielded no improvement after 12 weeks.

The DSM-5 criteria for OCD include the presence of obsessions, compulsions or both that are time-consuming or cause substantial distress or impairment.[1] The diagnosis of tic-related OCD, a new DSM-5 diagnostic subtype, is based on whether the individual has a past or current tic disorder. The clinical implications of this distinction are not entirely clear. However, a naturalistic cohort study found that adults with tic-related OCD reported earlier onset of symptoms, more symmetry/ordering symptoms, and more attention-deficit/hyperactivity disorder (ADHD) and autistic traits than those with OCD without tics.[2] Although 1 pediatric trial found tic-related OCD to demonstrate worse response to selective serotonin reuptake inhibitors (SSRIs),[3] this was not confirmed in a recent meta-analysis.[4] The meta-analysis found tic-related OCD to moderate CBT efficacy, suggesting that youth with tic disorders may be more responsive to this treatment.

The first-line treatment of OCD in children (with or without tics) is exposure-based CBT. Systematic reviews and meta-analyses demonstrate greater efficacy for CBT (Hedge's g = 1.21, 95% confidence interval [CI] 0.83–1.59, number needed to treat [NNT] = 3) than SSRI monotherapy (Hedge's g = 0.50, 95% CI 0.37–0.63, NNT = 5).[4] The Pediatric OCD Treatment Study (POTS) was a randomized controlled trial (RCT) comparing sertraline, CBT specific to OCD, combined sertraline and CBT, and placebo.[5] This trial included 112 children aged 7–17 years and found that all 3 active interventions were superior to placebo. Combined treatment with sertraline and CBT was superior to sertraline or CBT alone, while CBT and sertraline alone did not differ for reducing symptom severity. For remission, combined treatment and CBT alone did not differ and both outperformed sertraline alone. The subsequent POTS II trial demonstrated the efficacy of CBT augmentation strategies in 124 youth who had a partial response to optimal SSRI treatment.[6] Trials of fluoxetine, fluvoxamine, paroxetine and sertraline for pediatric OCD suggest similar efficacy. While the effect size for clomipramine appears larger than for SSRIs, clomipramine is not used as a first-line therapy because of adverse effects and possible cardiac arrthymias.[7]

Although there are no RCTs of antipsychotic augmentation for pediatric OCD, studies in adults support the use of antipsychotic augmentation in treatment-resistant OCD and show a greater response to therapy in individuals with tic-related OCD. A systematic review and meta-analysis of 9 RCTs of antipsychotic augmentation in treatment-refractory OCD found an absolute risk difference of 0.43 (95% CI 0.19–0.68, NNT = 2.3) between the proportion of treatment responders in the antipsychotic augmentation and placebo groups in those with tic-related OCD compared with an absolute risk difference of 0.17 (95% CI 0.07, 0.27; NNT 5.9) in those without tics.[8] Regarding second-generation antipsychotics, a more recent meta-analysis of RCTs found that only aripiprazole and risperidone were superior to placebo in decreasing OCD symptoms.[9] In children with tic-related OCD, evidence to support the use of antipsychotic augmentation is available from case series of children treated with risperidone or aripiprazole.[10]

Based on the available evidence, children with tic-related OCD should be given high priority for CBT as initial treatment. There is evidence to support the efficacy of remote CBT for OCD, which may improve accessibility to treatment.[11] Children who do not demonstrate adequate improvement with CBT alone should go on to pharmacotherapy with an SSRI, using doses at the higher end of the recommended range and waiting at least 12 weeks for a treatment response. In treatment-refractory patients, antipsychotic augmentation can be considered, keeping in mind the limitations in evidence and the need for drug safety monitoring. Evidence to support new pharmacological strategies for OCD is emerging, but not yet definitive.[12]

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Competing interests: T. Pringsheim has nothing to disclose. J. Piacentini reports grants from Pfizer Phamaceuticals, outside the submitted work.

DOI: 10.1503/jpn.180086

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