Resumo
A síndrome de Gilles de La Tourette é uma doença neuropsiquiátrica que afeta cerca de 1% da população. Tem início frequente na infância ou adolescência precoce. Os tiques, manifestação central, tendem a diminuir em frequência e gravidade durante a adolescência, existindo uma pequena percentagem de casos que evoluem para doença grave.
A propósito de um caso clínico de uma doente com 28 anos, com diagnóstico tardio aos 18 anos, doença grave e sem resposta ao tratamento, apresenta-se uma revisão de fatores de prognóstico, manutenção e indicações para alternativa cirúrgica na doença resistente.
A fisiopatologia não está definida, não existindo tratamento eficaz comprovado para estes indivíduos. Existem alternativas quando o tratamento com psicofármacos não é eficaz e considera-se proposta cirúrgica neste caso. Destaca-se a importância de uma boa articulação entre a Psiquiatria da Infância e Adolescência, a Psiquiatria e os Cuidados Primários. Conclui-se que serão necessários mais estudos para definir e individualizar o tratamento em casos de doença resistente.

Abstract
Gilles de la Tourette syndrome is a neuropsychiatric disease that affects about 1% of the population with frequent onset during childhood or early adolescence. Tics, the central manifestation, tend to decrease in frequency and severity throughout adolescence, even though a small percentage of cases progress to severe illness.
We present a clinical case description of a 28-year-old patient late diagnosed at 18 years old, with severe disease and no response to treatment as well as a prognostic and maintenance factor exploration and surgical indication in pharmacological resistant cases.
The pathophysiology is not well established and there is no approved treatment for all patients. There are alternatives when psychotropic drugs are not effective and a surgical intervention is considered in this case.
We highlight the importance of a good co-work and communication between Child and Adolescent Psychiatry, Psychiatry and Primary Care and early diagnosis. Further studies and evidence will be necessary to define and individualize resistant cases treatment.

Palavras-chave: Estimulação Encefálica Profunda; Síndrome de Tourette/diagnóstico; Síndrome de Tourette/tratamento

Keywords: Deep Brain Stimulation; Tourette Syndrome/diagnosis; Tourette Syndrome/therapy

INTRODUCTION
Gilles de La Tourette syndrome (GTS) is a polygenic neuropsychiatric disorder characterized by persistent motor and vocal tics (more than one), during at least 12 months.1 Motor and verbal tics may not have a simultaneous presentation; symptom onset occurs before 18 years and tics cannot be explained by other medical conditions.1,2
GTS estimated prevalence is around 1%, predominantly affecting male gender.3,4 Tics can persist throughout adulthood with a severe and debilitating presentation in a
minority of cases. Tics also have a sensory component - premonitory urge - which precedes the tic.

GTS pathophysiology is not well established. There is some evidence of abnormalities in brain pathways, particularly in the cortico-basal ganglia-thalamocortical circuit. It has a complex and multifactorial etiology. Currently, there is no specific diagnostic exam or laboratory analysis that defines GTS.

Tic exacerbation related to stress is well established and worsening of symptoms correlates with adverse life events. The transition period between adolescence and adulthood presents itself as a critical phase. Quality of life in these individuals exposed to potential social stigma tends to decrease.

Comorbid or co-occurring conditions are common (in 90% of cases - attention deficit and hyperactivity disorder in 21%-90%, obsessive compulsive disorder (OCD) in 20%-60%, depression in 18%-30% and anxiety disorder in 18%).

We pretend to present a GTS clinical case with severe and debilitating symptoms, comorbid OCD, resistance to therapy and explore maintenance factors as well as alternative surgery treatment indications.

CASE REPORT
The case study refers to a 28-year-old female patient, single, working as a communication advisor.

Around the age of 18 she presents with simple motor tics (eye blinking), simple vocal tics (guttural sounds) and echolalia associated with obsessive compulsive symptoms of contamination and religious rituals - blessing herself repeatedly. These were associated with intrusive thoughts of tragic content.

Meanwhile, she develops a conflicting relationship with her teacher and faces a complex process of decisions and changes: the choice of future education and work, admission to college and adolescence. Her parents decide to split up and she is forced to live with her alcoholic father with whom she has an unstable relationship. All these life-events ended up conditioning the worsening of tics associated with depressive symptoms that motivated a medical appointment. It was then prescribed an antidepressant by the attending physician. In an early phase, tics were not a source of concern to her family.

Around the age of 20 she develops coprolalia and self-aggressive motor tics, sometimes causing bruises, which motivates a psychiatry appointment. In association, she presents increasing obsessive, intrusive, egodystonic thoughts, with a worsening anxiety component, initial insomnia and cognitive complaints due to lack of concentration at work. She was victim of mobbing and suffered successive dismissals. When in a professional environment she managed to control some tics and rituals with a lot of effort and self-control, getting exhausted and giving up work. In peaceful and familiar environments, the symptoms tended to be worse and constant, as rebound from controlling attempts or more stress/conflicts at home as her father did not understand the disease.

She starts regular monitoring with a Psychiatrist and undergoes evaluation in a Neurology appointment with further investigation, without alterations. She is diagnosed with GTS and OCD. After a succession of adverse life-events the patient’s symptoms get worse and she starts treatment due to the negative impact and daily dysfunctionality. In addition to psychotherapy she starts pharmacotherapy with antipsychotics and antidepressants for comorbid OCD. She undergoes several switches (typical antipsychotics – haloperidol – and atypical antipsychotics – paliperidone, quetiapine), tricyclic antidepressants (clomipramine), selective serotonin-reuptake inhibitors (fluvoxamine, escitalopram) benzodiazepines (mexazolam, alprazolam, clonazepam, diazepam) after titration to therapeutic doses and adequate treatment exposure due to side effects, lack of disease control or no results at all, showing resistance to treatment.

She maintains tics, coprolalia and obsessive symptoms with negative repercussions on social, professional, family and individual functioning. Her insight, clinically stable comorbidities and the resistance to other treatments make this patient a suitable candidate for Deep Brain Stimulation.

DISCUSSION
There is no treatment with proven efficacy for all GTS individuals as in consequence of phenotypic variability and impact on functionality. Treatment must be individualized and centered on psychoeducation in a social context. Many patients do not require treatment when tics do not interfere with their normal daily functioning.

The therapeutic options available for tic control are primarily cognitive-behavioral therapy, followed by the administration of psychotropic drugs and, in some cases, brain surgery. Pharmacological treatment should be considered in patients with tics that cause dysfunction and interfere with functional and cognitive performance. Presently, there is no medication that has proven efficacy for all individuals with TS or that changes clinical outcomes. Typical antipsychotics are indicated for the treatment of tics, however, in low doses due to their side effects. Alternatively, atypical antipsychotics are recommended. There is not sufficient evidence to determine the relative effectiveness between different antipsychotics. Botulinum toxin, anticonvulsants, benzodiazepines and cannabinoid compounds are also described, however it is necessary to consider their side effects and limited evidence. There is a wide range of promising agents under investigation.

There are no established criteria for treatment-refractory GTS. Phenotypic and genetic variability as well as different comorbidities (that also contribute to deterioration in quality of life) make it difficult to reach a definition. Nevertheless, it was suggested that the failure of three different drugs including both typical and atypical neuroleptics in adequate dosages over an adequate period of time) and, if possible, at least 12 behavioral therapy sessions, implicated treatment resistance. Also, lack of response to haloperidol (the only drug licensed for GTS treatment in most of European countries).
There are no defined predictors of clinical course in GTS. It has a very heterogeneous presentation, a complex range of possible symptom combination and comorbidities and prognosis is difficult to define individually. Psychosocial problems might predict a more severe clinical outcome. In the majority of cases there is a comorbid condition that adds an extra clinical burden. OCD symptom severity directly influences tic symptom severity and depression directly influences quality of life in these individuals.

Referring to the presented clinical case, the late diagnosis (at 18 years of age, when there was evidence of previous symptomatology in adolescence) stands out - perhaps due to the lack of information and awareness in the family, lack of articulation between medical specialties or mental health associated stigma - and the evolution to severe illness (unlike most cases). Maintenance factors can be identified, such as: lack of family support, concomitant OCD and depression, psychopharmacological intolerance or no response, professional and social life negative impact and family instability.

Besides late diagnosis, she did not tolerate haloperidol beside 1mg/day and the combination of antipsychotics and antidepressants or benzodiazepines did not cause symptomatic improvement. Despite not having behavioral therapy sessions, it can be considered a treatment refractory case. Given symptom severity and impact on patient’s psychosocial functioning, other therapeutic options may be considered. Deep brain stimulation is an option in treatment resistance. There is limited data and no consensus on the brain target to stimulate. Like in any surgical procedure, there are risks and complications. Movement Disorders Society and the American Academy of Neurology recommend diagnostic confirmation and decision in a multidisciplinary team with pre and post-surgical follow-up and the stabilization of comorbid psychiatric conditions. In short, we highlight the importance of co-work and communication between medical specialties in order to raise awareness, aiming for an early diagnosis and treatment of GTS patients. Deep brain stimulation is an option in treatment resistance. Further studies and evidence will be necessary to define and individualize treatment options.

Responsabilidades Éticas
Conflitos de Interesse: Os autores declararam a inexistência de conflitos de interesse na realização do presente trabalho.
Fontes de Financiamento: Não existiram fontes externas de financiamento para a realização deste artigo.
Confidencialidade dos Dados: Os autores declararam ter seguido os protocolos da sua instituição acerca da publicação dos dados de doentes.
Consentimento: Consentimento do doente para publicação obtido.
Proveniência e Revisão por Pares: Não comissionado; revisão externa por pares.

Ethical Disclosures
Conflicts of Interest: The authors have no conflicts of interest to declare.
Financing Support: This work has not received any contribution, grant or scholarship.
Confidentiality of Data: The authors declare that they have followed the protocols of their work center on the publication of data from patients.
Patient Consent: Consent for publication was obtained.
Provenance and Peer Review: Not commissioned; externally peer reviewed.

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