Prescribing Patterns in a Psychiatically Referred Sample of Youth with Autism Spectrum Disorder

Melissa F. de Leon1,2, Julia Shekunov, MD,3, Janet Wozniak, MD1,2, Kristina Conroy, BA1,2, Nora Friedman, MD1, Elizabeth Pinsky, MD3, Maura Fitzgerald, MPH1,2, Joseph Biederman, MD1,2,3, and Gagan Joshi, MD1,2,3,4

1Alan and Lorraine Bressler Clinical and Research Program for Autism Spectrum Disorder, Massachusetts General Hospital, Boston MA; 2Clinical and Research Program in Pediatric Psychopharmacology, Massachusetts General Hospital, Boston MA; 3Department of Psychiatry, Harvard Medical School, Boston MA; 4McGovern Institute for Brain Research, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge MA

ABSTRACT

Objective: The aim of this study was to examine the pattern of psychopharmacological interventions in a psychiatically referred sample of youth with autism spectrum disorder (ASD).

Methods: A retrospective chart review in a psychiatrically referred sample of youth with ASD aimed at collecting demographic and clinical information including psychiatically disorders and related current medication treatment and response. Data were collected in December 2011. Clinicians identified the target disorder for each medication and any adverse events. Level of psychopathology and therapeutic response was assessed by clinician-rated Clinical Global Impression Scale (CGI).

Results: Psychiatically referred youth with ASD (N=54) suffered from multiple psychopathologies (mean: 2.3) with a marked level of morbidity (baseline CGI-Severity mean scores range: 4.3 - 5.6). Most prevalent psychopathology were ADHD (83%), anxiety disorders (67%), and bipolar spectrum disorder (44%), and mood disorder NOS (44%). Majority (80%) of the study sample suffered from multiple psychopathologies (mean: 2.3) with a relatively greater number of target symptoms than non-referrers (44%), and mood disorder NOS (44%).

Conclusions: Psychiatrically referred children with ASD are frequently driven by emotional and behavioral symptoms that often include irritability/aggression, hyperactivity, anxiety, and depression. Research indicates a greater burden of comorbidity with psychiatric disorders in referred populations of youth with ASD including attention-deficit/hyperactivity disorder (ADHD), anxiety disorders, and mood disorders. Despite overwhelming evidence of significant psychopharmacological associations with ASD, the approved pharmacotherapeutic options are limited to the management of irritability.

METHOD

We performed a retrospective, unblinded chart review to assess the psychopharmacological treatment of a psychiatically referred sample of youth with ASD. The subjects were children and adolescents under the care of board-certified child and adolescent psychiatrists (GJ and JK). The reviewers were three psychiatry residents affiliated with a major university center: 1) program for autism spectrum disorder and 2) program for pediatric psychopharmacology for psychiatric disorders.

For each medication, treating clinicians identified the target symptom or disorder, and the presence and severity of any adverse events (AEs). To assess severity, treating clinicians assigned a baseline and current NIMH Clinical Global Impressions Scale-Severity (CGI-S) rating for each disorder [1=not ill, 7=extremely ill]. Improvement on half of the treatment targets, and non-response as improvement in less than a half of the treatment targets.

RESULTS

Figure 1. The most commonly prescribed class of medication was second generation anti-psychotics (24%), followed by selective serotonin reuptake inhibitors (24%), then stimulant medications (24%).

CONCLUSION

To our knowledge, this is the first naturalistic study in this unique population to assess the response of prescribed pharmacotherapy in a clinic setting.

IMPACT

REFERENCES


ACKNOWLEDGEMENTS

This work is funded in part by the Alan and Lorraine Bressler Clinical and Research Program for Autism Spectrum Disorder, the Saylor Fund for Autism Research, the MGH Pediatric Psychopharmacology Council Fund, and by the National Institute of Mental Health grant awarded to Gagan Joshi (#K23MH100450).