

M. Poletti¹, E. Santelli²,
F. Foti¹, V. Giuberti²

¹ Department of Mental Health and Pathological Addiction, Child and Adolescent Neuropsychiatry Service, Azienda USL-IRCSS di Reggio Emilia, Reggio Emilia, Italy;
² Centro Autismo, Azienda USL-IRCSS di Reggio Emilia, Italy

Autism spectrum disorder presenting with acute anorectic symptomatology: a diagnostic challenge

Summary

An increasing empirical evidence supports a relationship between autism spectrum disorder (ASD) and anorexia. Higher autistic traits are reported in anorexia and a subgroup of adolescent females with anorectic symptomatology could receive an ASD categorial diagnosis. In this case report of a 12-year-old female, we present clinical challenges in the recognition and diagnosis of ASD during hospitalization for anorectic symptomatology: ASD assessment during hospitalization did not support the diagnosis, while another ASD assessment one year later supported the diagnosis, reflecting a changing clinical picture in comparison with that predominant during the anorectic period. In conclusion, the phase of illness and the setting of assessment may influence the detection of a suspected underlying ASD in presence of an acute anorectic symptomatology.

Key words

Autism spectrum disorders • Anorexia • Hospitalization • Camouflage

Introduction

Given the higher prevalence of Autism Spectrum Disorders (ASD) in males¹, descriptions of clinical phenotypes of ASD may present a gender bias, with female phenotypical features possibly under-recognized and under-diagnosed². In this perspective, two recent empirical evidences began to fill the gap on the clinical knowledge about specific phenotypic features of ASD females, especially in those high-functioning: 1) “social camouflaging”, i.e. coping strategies for use in social situations, including explicit techniques to appear social competent and to prevent others from seeing own social difficulties^{3,4}; 2) an association between ASD features and anorectic symptomatology, both at dimensional and at categorial levels: from a dimensional perspective, there is an emerging evidence that anorectic female subjects have more severe autistic traits in comparison with typical controls in relation to social skills, communication and flexibility⁵, as resulting by a recent meta-analysis of the Autism-Spectrum Quotient in anorexia⁶; from a categorial perspective, there is also an emerging evidence that diagnostic tools adopted for ASD, as the Autism Diagnostic Observation Schedule, 2nd Edition (ADOS-2), in clinical samples of adolescent anorectic females may reveal previously unrecognized ASD, at least in measure of 10% of assessed subjects⁷⁻⁹.

In this case report we present clinical challenges in the recognition and diagnosis of ASD presenting with an acute anorectic symptomatology, suggesting that the clinical course and a longitudinal assessment may facilitate this goal.

© Copyright by Pacini Editore Srl



OPEN ACCESS

Received: September 18, 2018

Accepted: June 18, 2019

Correspondence

Michele Poletti
Department of Mental Health and Pathological Addiction, Child Neuropsychiatry Service, Azienda USL-IRCSS di Reggio Emilia, via Amendola 2, 42100 Reggio Emilia, Italy
• Tel. +39 0522 335540
• E-mail: michele.poletti2@ausl.re.it

Case report

NR, a 12-year old female, underwent attention at a secondary mental health service for children and adolescent due to an acute onset of restrictive eating behavior, that in few months caused a weight loss of about 10 kg. Lack of insight and of collaboration, and a life-threatening Body Mass Index (BMI) of 11.5 (weight: kg 23.2), indicated the need of hospitalization in a specific pediatric eating disorder ward. NR was hospitalized from March to June 2016 for a total of 99 days, with a BMI at discharge of 16.9 (weight: kg 33.9). The lack of collaboration with clinicians and of adherence to the specific eating program persisted during the first month of hospitalization; then, the introduction of a pharmacological therapy (fluoxetine 20 mg/die since day 31 plus olanzapine 2.5 mg/die since day 46) gradually induced a good adherence, in the second half of hospitalization. Despite its initial lack of collaboration, NR rapidly adjusted to hospitalization, without apparent suffering from being apart from parents.

The developmental history was suggestive of a possible unrecognized ASD: since infancy, repetitive rituals with dolls for falling asleep, rigid locations for toys in her room, and refusal of removing any stuff owned since early years (e.g. drawings, toys, clothes); at social level, poor eye contact, difficulties in socialization with peers and lack of close relationships. Growing up rituals of order were extended to the whole house, that was systematically tidy up when coming back from school; she also presented lack of interest for clothes and personal hygiene, with irritable mood and frequent temper tantrums. School achievement has always been on average, with a progressive increase of competitiveness. Considering improved collaboration, an assessment for ASD was performed during hospitalization with the ADOS-2 Module 3¹⁰ and the Autism Diagnostic Interview Revised (ADI-R)¹¹, but the diagnostic hypothesis was not confirmed by both instruments. After discharge, eating behavior progressively returned to premorbid usual habits, with maintenance of weight; at the same time behavioral features progressively changed in the subsequent year, with increasing distress in parents: in social contexts NR exhibited severe difficulties to grasp social rules and to manage relationship with peers. For these worsening features, a second assessment in a tertiary ASD service was performed in November 2017 (age 14) with both standard instruments (ADOS-2 Module 4 and ADI-R) and scales for high-functioning conditions: Krug Asperger's Disorder Index¹², score 107; Gilliam Asperger's Disorder Scale¹³, score 103; Childhood Autism Rating Scale Second Edition – High Functioning Autism¹⁴: score 34.5); in this occasion, all instruments converged to support an ASD diagnosis.

Discussion

This clinical case presents hints about the phenomenology of adolescent females with high-functioning ASD. In this case we could consider that typical language development, mild expressions of restricted and repetitive patterns of behavior and activities (with absence of reported stereotypies) as well as average school achievement could have masked the underlying condition of ASD, whose phenotypic expressivity began to be more pronounced in terms of deficits in social interactions toward preadolescence. The increasing subjective distress induced by increasing difficulties in adjustment across multiple contexts, coupled with an ASD structure, may have facilitated a phenotypic expression in terms of an anorectic symptomatology. The acute and severe anorectic manifestation, characterized by a rapid weight loss associated with restrictive eating (with need of hospitalization) as well as by a rapid resolution, doesn't represent the common clinical course of anorexia; therefore, these atypical eating symptoms could be framed within a more general and unrecognized underlying psychopathological picture, as ASD^{8,9} or schizophrenia spectrum disorders¹⁵. For example, ASD traits of perfectionism and rigid thinking, if associated to restrictive eating, could induce similar acute and severe manifestations, as well as imperative auditory hallucinations related to eating could have similar effects. The developmental history presented features suggestive of a possible ASD, while features suggestive of schizophrenia spectrum disorders were not evident. Interestingly, in this case, the assessment of ASD with the same instruments (except that for ADOS-2 modules: Module 3 in the first assessment, Module 4 in the second assessment) as inpatient and 16 months later as outpatient had different results in terms of scores and of final diagnosis: absence on ASD in the first case, evidence of ASD in the second case, also supported by other scales for high-functioning conditions (KADI, GADS, CARS-2-HF). Westwood and colleagues⁸ reported a similar diagnostic approach (ADOS-2 with patients and the Developmental Dimensional and Diagnostic Interview Short Version for parents) in a sample of 40 females aged between 12 and 18, recruited in an inpatient and day-patient eating disorder center: 21 out of 40 patients score above cut-off on the ADOS-2 suggesting a possible ASD, but only in 4 cases (10% of the sample) also the developmental history as reported by parents was also suggestive of ASD. In our case, the diagnostic mismatch between the first and the second assessment reliably reflects the longitudinal change of the clinical picture, that during hospitalization was polarized on eating disturbance and on lack of insight and collaboration, while thereafter was progressively characterized by evident social deficits and bizarre imagi-

nation. Therefore, in case of a suspected unrecognized ASD condition underlying an anorectic symptomatology with acute and atypical onset, the setting and the timing of assessment may influence the diagnostic process. The assessment during hospitalization may hinder a diagnosis, probably being ASD symptomatic expression attenuated by the hospitalization, and being judgments of parents as well as of the same clinicians polarized (and therefore biased) on the life-threatening behavior of restrictive eating rather than on social deficits. Once returned to usual daily-life contexts, the phenotypic expression of ASD traits may “re-emerge”, becoming more clinically evident especially in relation to social situations and social rules, that become more demanding in adolescence. In this perspective, a recent study¹⁶ on

young females with recent-onset anorexia reported that those who recovered from anorexia presented more severe impairments in the perception of social stimuli in comparison with those with first-episode anorexia, suggesting that social deficits may be differently expressed along the clinical course of the eating disorder, at least comparing clinical vs recovered states.

In conclusion, this clinical case suggests that the phase of illness and the setting of assessment may influence the detection of a suspected underlying ASD in presence of an acute anorectic symptomatology.

Conflict of Interest

The authors have no conflict of interests.

References

- 1 Lai MC, Lombardo MV, Auyeung B, et al. *Sex/gender differences and autism: setting the scene for future research*. J Am Acad Child Adol Psychiatry 2015;54:11-24.
- 2 Van Wijngaarden-Cremers PJM, van Eeten E, Groen VG, et al. *Gender and age differences in the core triad of impairments in autism spectrum disorders: a systematic review and meta-analysis*. J Aut Dev Disord 2014;44:627-35.
- 3 Dean M, Harwood R, Kasari C. *The art of camouflage: gender differences in the social behaviors of girls and boys with autism spectrum disorder*. Autism 2017;21:678-89.
- 4 Hull L, Petrides KV, Allison C, et al. *“Putting on my best normal”: social camouflaging in adults with autism spectrum conditions*. J Aut Dev Disord 2017;47: 2519-34.
- 5 Rhind C, Bonfioli E, Hibbs R, et al. *An examination of autism spectrum traits in adolescents with anorexia nervosa and their parents*. Mol Autism 2014;5:56.
- 6 Westwood H, Eisler I, Mandy W, et al. *Using the Autism-Spectrum Quotient to measure autistic traits in anorexia nervosa: a systematic review and meta-analysis*. J Aut Dev Disord 2016;46:964-77.
- 7 Postorino V, Scahill L, De Peppo L, et al. *Investigation of autism spectrum disorder and autistic traits in an adolescent sample with anorexia nervosa*. J Aut Dev Disord 2017;47:1051-61.
- 8 Westwood H, Mandy W, Simic M, et al. *Assessing ASD in adolescent females with anorexia nervosa using clinical and developmental measures: a preliminary investigation*. J Abn Child Psychol 2018;46:183-92.
- 9 Westwood H, Tchanturia K. *Autism spectrum disorder in anorexia nervosa: an updated literature review*. Curr Psychiatr Rep 2017;19:41.
- 10 Lord C, Rutter M, DiLavore PC, et al. *Autism diagnostic observation schedule, Second Edition*. Torrence, CA: Western Psychological Services 2012.
- 11 Rutter M, LeCouteur A, Lord C. *Autism diagnostic interview-revised*. Los Angeles, CA: Western Psychological Services 2008.
- 12 Krug DA, Arick J. *Krug’s Asperger’s disorder scale*. Austin, TX: Pro-Ed 2003.
- 13 Gilliam JE. *Gilliam Asperger’s Disorder Scale*. Austin, TX: Pro-Ed 2001.
- 14 Schopler E, Van Bourgondien ME, Wellman GJ, et al. *Childhood Autism Rating Scale (2nd Edition)*. Los Angeles, CA: Western Psychological Services 2010.
- 15 Kelly L, Kamali M, Brennan T. *Anorectic symptomatology as a prodrome of schizophrenia: four case reports*. Eur Eating Disord Rev 2004;12:230-3.
- 16 Bentz M, Jepsen JRM, Pedersen T, et al. *Impairment of social function in young females with recent-onset anorexia nervosa and recovered individuals*. J Adol Health 2017;60:23-32.

How to cite this article: M. Poletti M, Santelli E, Foti F, et al. *Autism spectrum disorder presenting with acute anorectic symptomatology: a diagnostic challenge*. Journal of Psychopathology 2019;25:45-47.