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Severe Nutritional and Psychosocial Deficits in Avoidant/Restrictive Food Intake Disorder (ARFID): Case Report

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SUMMARY

Avoidant/Restrictive food intake disorder (ARFID) is a diagnostic category that is included in the DSM 5 (American Psychiatric Association- APA 2013) and proposed by the ICD11 (The World Health Organisation-WHO 2019). Very few ARFID cases have been reported to date. This report aims to present the case of a 25-year-old female who was diagnosed with ARFID and thereby to discuss the challenges in diagnosing and managing the case.

Keywords: Eating disorder, ARFID, Psychosomatic, Psychogenic hiccups

INTRODUCTION

Avoidant/Restrictive food intake disorder (ARFID) is a diagnostic criterion included in the DSM 5 (APA 2013) and the ICD 11 (WHO -endorsed 2019). ARFID was recently reviewed by Claudino et al. (2019). ARFID replaced the DSM- IV -TR diagnostic category of 'Feeding or Eating Disorders of Infancy and Early Childhood (FEDIC)' which could only be diagnosed in children up to the age of 6 years (APA 2000, Katzman et al. 2019) ARFID can be diagnosed in individuals of any age who have an eating or feeding disturbance leading to persistent failure in meeting appropriate nutritional and/or energy requirements in the absence of any perceptions related to body weight or shape (APA 2013). ARFID has been diagnosed in individuals aged from 4 years to 56 years of age (Lucarelli et al. 2017, Tsai et al. 2017). These patients may also have severe nutritional deficits with complicated outcomes such as Subacute Combined Degeneration of the Spinal Cord as reported in a 17year old male and bilateral optic neuropathy in an 18-year-old male (Chandran et al. 2015, Chiarello et al. 2018). Most studies on prevalence have been done in the pediatric age group, although a retrospective chart review on 14 to 50 years old Japanese females with feeding and eating disorders identified 11% of the patients meeting the DSM 5 criteria for ARFID (Norris et al. 2018, Katzman et al 2019).

Since ARFID is a recently introduced diagnostic criterion, much research is still needed on its epidemiology, risk factors, pathophysiology, clinical features, course, prognosis, comorbidities, complications, assessment and management. In this report we intend to contribute to the scanty literature in several of these respects on the topic by presenting the case of a 25-year-old female diagnosed with ARFID.

CASE

The 25-year old single female patient with high school education and lower middle socioeconomic status, working for a private firm as a human resource recruiter consulted the psychiatry outpatient clinic with a 6-month history of persistent hiccups on having ingested food, first presenting with solid food and later also with liquid nutrition. Hiccups occurred when attempting to swallow, causing watering eyes, restlessness with palpitations. Subsequently, smell of food also caused hiccups which, however, did not occur during sleep. This eventually made her fear the idea of putting anything in her mouth. Starting subsistence with only liquid food like juices, tea, and lentil water gradually lead to ingesting liquid nutrition once or twice a day. She reported to have lost 5 kg weight in 4 months. Food smells emanating with the hiccups made difficult going to work and socializing and conversing.

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Starting with consulting a faith healer, guided by local cultural beliefs, her family later decided to consult a gastroenterologist. The various investigations including chest and abdominal X-Ray, barium meal, ultrasonography, cranial CT gave normal results. The upper GI endoscopy revealed mild gastritis, however not significant enough to produce the distressing symptoms. She was referred to psychiatry department for assessment.

She was admitted as a psychiatry inpatient for detailed evaluation and management. She was grossly underweight (34 kg) and her Body Mass Index (BMI) was 16.9 kg/m^2. A complete blood count, serum electrolytes, liver, kidney, and thyroid function tests were done to look for anemia and metabolic disturbances. Electrocardiography (ECG) was done to look for prolonged QT interval. The results of measurements of ESR and CRP levels to assess inflammation and serum iron, calcium, vitamin D, and vitamin B12 to look for dietary deficiencies were within normal limits; but her haemoglobin level was 7.4 gm% and serum iron and serum vitamin D3 levels were low.

The patient was found to be anxious during the interview, reporting to be preoccupied with her symptoms but denying any preoccupation with the idea of having a serious disorder. On enquiry, she reported that despite feeling hunger and desiring to eat she abstained with the fear of having persistent hiccups.

There was not any evidence of any swelling in the neck or thoracic region. Also, she did not have a history of self-induced vomiting, binge eating, body image distortion, delusions, affective symptoms, or obsessive-compulsive symptoms.

Personality assessment showed cluster C personality traits making her anxious and dependent on family members. She had been very attached to her father but, after his untimely death a few years previously, she had become dependent on her mother, needing her reassurance before taking any major decisions. Further querying indicated that her symptoms had started after her family started looking for a prospective groom. Although she accepted getting married, she was apprehensive of having to be separated from her mother. Given the chance, she also wished to pursue her education further, which created an ambivalence.

Reviewing the available literature, the patient was diagnosed with AFRID on the basis of the DSM-V criteria. She screened positive on the Nine Item Avoidant /Restrictive Food Intake Disorder Screen (NIAS) and, given her concern about aversive consequences of eating, she scored 5 out of 6 on the ARFID severity scale of the Pica, ARFID, and Rumination Disorder Interview (PARDI) (Zickgraf H and Ellis J 2018, Bryant-Waugh R et al. 2019).

Treatment aimed to correct her nutritional deficiencies, increase food consumption and promote weight gain by reducing hiccups, the fear of having hiccups and her anxiety related to eating.

Nasogastric Ryle's Tube (RT) feeding with a daily intake of 1500 KCal was started together with iron and vitamin D supplements for micronutrient deficiency. The patient was also started on Lorazepam (1 mg/day, per os) and Olanzapine (5 mg/day, per os) to reduce her anxiety and hiccups. In addition to pharmacological management, the patient and her family members were educated about her illness and the patient was taught relaxation techniques to control her anxiety. She was also made to link her hiccups with underlying anxiety through Goldberg's reattribution techniques (Goldberg et al. 1989). She started accepting and swallowing semi-solid food without the help of nasogastric tube at the end of 3 weeks.

Over a period of 4 weeks, the patient showed a good response to treatment and her symptoms resolved. After treatment, her score was 3 out of 6, mostly on meeting calorie needs, on the PARDI scale. She gained 6 kgs weight in this period and there was a reduction in the fearful impulses to the sight or smell of food. She was discharged and advised follow up in the outpatient clinic on a weekly basis.

DISCUSSION

Avoidant/ Restrictive Food Intake Disorder (ARFID) is an eating disturbance where the individual does not have body image concerns (Katzman et al. 2019). In contrast, patients may want to increase their food intake and gain weight but are unable to do so (Zimmerman and Fisher 2017). Subtypes of ARFID have been identified depending upon the motivation behind food avoidance (Katzman et al. 2019), including avoidance of food intake due to (1) lack of interest in eating (2) sensory features of food and (3) fear of negative consequences from eating. Despite the existence of these three subtypes, studies have reported that around 22 to 50 % of patients have a mixed presentation (Norris et al. 2018, Reilly et al. 2019).

The patient discussed here was unable to have food and gain weight, despite desiring both, for fear of hiccups which led to avoidance of food resulting in the significant weight loss of 5 kg in 4 months, and lowering her haemoglobin to 7.4 gm% due to nutritional deficiency caused by eating disorder.

During literature review, we initially came across the diagnostic criterion of 'Somatoform autonomic dysfunction' in ICD-10- Classification of Mental and Behavioral Disorders, where 'psychogenic hiccups' have been given as an example (WHO 1992). The patient's case, however, did not follow the criteria (c) in the guidelines, which state that there should be a preoccupation with the possibility of a serious disorder, which

was ruled out on enquiry. Also her clinical symptoms exceeded merely having hiccups, in that she had difficulty eating which resulted in weight loss and significant nutritional deficiencies. Further literature review and consulting the DSM 5, the diagnostic criterion of ARFID was found to be followed by the patient in having an eating disorder manifested by persistent failure to meet appropriate nutritional needs associated with significant weight loss, significant nutritional deficiency, dependence on enteral feeding and oral nutritional supplements, and, also, interference with psychosocial functioning. This eating disorder could neither be explained by lack of available food or by an associated culturally sanctioned practice, nor could it be based on another medical condition or a psychiatric disorder (APA 2013). Also, as reported in the literature, the patient had a mixed presentation of two subtypes of ARFID, in that she would avoid food due to fear of having hiccups, which is the fear of negative consequences from eating, and also due to the smell of food, which is related to the sensory characteristics of food. In the case of the patient, the symptoms had started when her family started looking for a prospective groom, making her apprehensive of having to separate from her mother after marriage. A similar explanation was given in a case where fear of getting separated from the mother had led to ARFID symptoms in a 9-year-old child (Eckhardt et al. 2019).

Here we are reporting ARFID in a young female, although the literature suggests a preponderance of ARFID in older children and adolescents with a predominance in males (Katzman et al. 2019). Also most patients with ARFID have been found to have associated gastrointestinal symptoms such as vomiting or abdominal pain, although in this case the associated gastrointestinal symptom was hiccups (Zimmerman and Fisher 2017). To the best of our knowledge, this is the first reported case of a patient diagnosed with ARFID who avoided food intake due to the fear of having hiccups during eating.

There is shortage of data on the management of patients diagnosed with ARFID. The role of nonpharmacological techniques like psychoeducation and cognitive behavioral therapy in treating this condition have been recommended in the literature (Katzman et al. 2019, Yaşar et al. 2019). We managed the patient discussed here with a combination of both pharmacological and non-pharmacological measures. Lack of sufficient case reports in the literature related to ARFID led to a delay in the diagnosis in this case which increased patient suffering and led to loss of work hours.

CONCLUSION

Avoidant/restrictive food intake disorder (ARFID) is a recently proposed diagnostic criterion and only a few ARFID cases have been reported to date. This case report is an addition to the available literature and intends both to sensitize clinicians to be vigilant about this diagnostic criterion and to draw the attention of researchers to explore ARFID further to facilitate the development of evidence-based management for this condition.

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