Failure to Thrive and Malnutrition in an Adult with OCD: An Inpatient Multidisciplinary Approach to Management of Co-morbid ARFID in the General Hospital

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Introduction

1. What are you studying? /Issue

Avoidant-restrictive food-intake disorder (ARFID) is a diagnosis introduced in the fifth edition of the Diagnostic and Statistical Manual (DSM-5) that extended the DSM-IV diagnosis of feeding disorder in infancy or early childhood through adulthood. ARFID patients have higher psychiatric and medical illness co-morbidity compared to anorexia nervosa (AN)[3] resulting in diagnostic and management challenges for the consultation-liaison psychiatrist (CLP). We present a case of ARFID in an adult with multiple co-morbidities, and suggestions for diagnosis and management.

2. Why is this important?

Eating disorders (ED) challenge inpatient teams with medical, psychological, and ethical complexities for which CLP is regularly consulted. Yet ED's and severe undernutrition are not monolithic. Whereas AN is driven principally by concerns around body image, ARFID has been described as "selective eating" or "choosy eating," a conditioned negative response associated with an aversive experience, or "food neophobia." ARFID thus represents a distinct psychopathology.

Further, ARFID is significant portion of ED's. Between January 2022 and January 2023, 47,705 adults responded to the National Eating Disorders Association online eating disorder screen. 2,378 (5.0%) adult respondents screened positive for ARFID[4].

Several studies have found that only a minority of individuals experiencing an ED receive evidence-based care[5]. With its own psychopathology, ARFID requires a specialized ED feeding protocol distinct from that used to treat AN. Early, accurate diagnosis and subsequent appropriate treatment will lead to better clinical outcome.

Probable Diagnosis	n (%)
ARFID	2,378 (5.0%)
AN	2,273 (4.8%)
Clinical/subclinical bulimia nervosa	14,911 (31.3%)
Clinical/subclinical binge eating disorder	7,302 (15.3%)
Unspecified feeding or eating disorder	15,172 (31.8%)
Purging Disorder	868 (1.8%)
At risk for an ED	4,801 (10.1%)

Table 1. Prevalence of Probable ED diagnoses and Risk

3. How will your analysis add to the existing literature in the field?

ED's are variable and under-researched, with consequent uncertainty of their distinct psychopathologies, treatments and management. There are presently no well-established treatment protocols for ARFID, with a limited number of randomized clinical trials among patients with pediatric feeding disorders[2].

Additionally, ARFID frequently presents with comorbid psychiatric disorders (e.g. obsessive compulsive disorder, autism spectrum disorder). Further research is needed to examine whether ARFID presents differently within psychiatric contexts varying in comorbidity as well as degree of pathology[1].

Research question

How does CLP best address severe undernutrition and psychiatric comorbidity in an adult with ARFID when there is at present no established ARFID-specific feeding protocol, while assessing psychiatric progress when weight gain is the goal to meet discharge criteria?

Standard ED Protocol	Overlap in Protocols	ARFID-specific Protocol
	– Caloric goals and monitoring –	
1. Protocol of increasing calories daily, calorie counting, and having meals determined by diet technician remains constant	1. At admission, initiate 2,000 kcal diet unless determined to be high risk for refeeding syndrome 2. Increase by 200 kcal every day until at estimated goal kcal 3. Modify rate and amount of calorie increase as needed to support medical stabilization	1. Once medically stable enough, patients are transitioned from standard protocol to modified
	– Meal Structure –	
1. No use of commode/bathroom within 15 minutes after meal	1. 3 meals and 3 snacks provided daily a. 30-minute meals b. 20-minute snacks c. 15-minute nutritional supplement (if food is not completed) 2. Patient care attendant observes meal/snack and observes after meal/snack for 15 minutes 3. Family members encouraged to provide mealtime support. If caregiver is available and deemed safe, ask to fill in meal supervision role during later part of admission	1. Meal observations (and commode privileges) may be more flexible a. e.g., patients may not need observation during/after meals, or have to wait to use bathroom
	– Meal Content –	
1. Meal content determined by diet technician based on available foods and calorie goals for the day 2. No dietary modifications made except in case of food allergies, religious needs, and longstanding vegetarianism predating onset of illness. Vegan diets not accommodated	1. Meals and snacks are delivered by hospital kitchen	Meal content determined by caregiver and patient, if appropriate. Family provided with regular hospital menu, caloric goal and menu planning worksheet. Menurs repeated daily as appropriate with modifications made to support increasing calorie goals Dietary modifications allowed to preference intake of solid nutrition as long as fitting within close range of calorie goals
	– Calorie/meal replacement –	
	1. Percentage of meal eaten recorded by patient care attendant. Any nutrition not consumed via food is supplemented with nutritional beverage with a 1:1 calorie replacement 2. If all nutrition (food and supplement) not completed, supplement is given through nasogastric tube 3. Nasogastric tube feeds are completed directly after unfinished meal or snack 4. Nasogastric tube is removed after 24 hours of completing all nutrition by mouth	1. Nursing staff can modify amount of replacement if patient ate mostly high caloric density or low caloric density foods 2. If patient has aversion to supplement, alternate meal replacement items can be used if available to decrease reliance on nasogastric tube

Table 2: Modified Eating Disorder Protocol for patients with ARFID[4]

Case Presentation

History of Present Illness

A 52-year-old woman with a history of obsessive-compulsive disorder (OCD), agoraphobia, unspecified personality disorder, and unspecified eating disorder was brought to the emergency department by EMS after a fall in the setting of failure to thrive.

EMS was initially called for a lift assist. However, after extensive negotiation the patient agreed to be brought to the hospital. Per EMS report, she had been couch-bound for over a year and intermittently homebound for twenty years, the most recently several years of which she had been unable to ambulate. Per nursing notes, the patient stated she "goes to the bathroom in a pitcher on the couch and has her mother empty the container. She lives at home with mother as her primary caretaker. Endorses that her knees do not bend and she does not leave the home. Endorses history of depression and has a 'contamination phobia.'" In the emergency department, physical exam noted the patient to be severely cachectic and "incredibly emaciated" to the point that her bones were visible through her skin.

Past Psychiatric History
- psychiatric admission as a pre-adolescent prior to this for "separation anxiety"
- OCD diagnosed at age 11 .
- She was followed only briefly by a psychiatrist as an adolescent, and mainly managed by her PCP via telephone.
- Did not finish high school due to rituals and contamination compulsions which were described as having been significantly exacerbated after living with an abusive stepfather.
- Age 20, PCP noted weight drop from 105lbs to 85lbs with related cold intolerance and absence of menstruation. Notes described OCD symptoms involving ritualization "that limits her eating."
- Over four decades of notes documented under treated OCD due to both rigidity around medication and somatic concerns related to taking medication.

Family History
- Mother diagnosed with OCD and treated with fluoxetine, maternal grandmother with bipolar disorder.

Social History
- Parents divorced before the age of 9.
- Did not finish HS due to OCD, significantly exacerbated after living with an abusive stepfather.
- History of being house bound on and off for decades.
- History of concerning weight loss dating back to at least late teens/early twenties.

Nutrition Focused Physical Exam
Temporalis muscle: Wasting with scooping, hollowing
Hair: Dull, thin, lackluster, or sparse; Scaly/flaky scalp
Orbital fat pad surrounding eye: Hollow look/Dark circles
Buccal fat: Severely sunken cheeks, prominent zygomatic bone
Mouth/mucosa/lips: Poor dentition; Bleeding gums

Summary: 8 areas of severe muscle depletion and 4 areas of severe fat depletion. Additionally, thin hair with concern for protein/energy deficiency and iron deficiency; bleeding gums with concern for vitamin C deficiency; and pale skin concerning for iron deficiency.

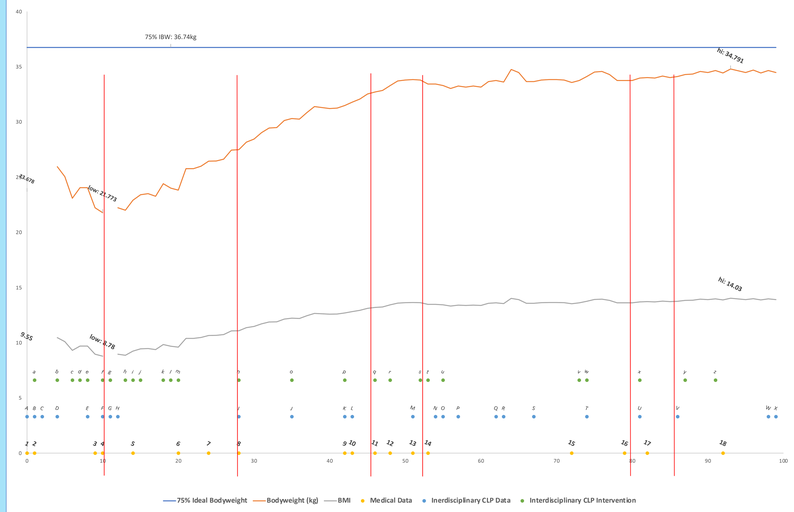
Hospital Course

- Admitted to inpatient family medicine service for FTT
  - Weight 59lbs (27kg), IDBW 130lbs (59kg based on BMI of 24)
  - BMI 9.55 kg/m2
- Labs revealed low Hgb, Hct, ferritin, ACV, albumin, total protein, anemia
- Vitamin deficiencies: B6, B12, C, D

- CLP consulted HD1 for diagnostic clarification, medication management
  - Hx of OCD and agoraphobia
  - Over time diagnostic clarification occurred revealing ARFID comorbid with OCD and OCPD
  - PT, OT, nutrition, health psychology contributed consultative recommendations
  - Nutrition recommendations included calorie counts, increased calorie density with each bite, monitored intake, consideration of feeding tube
  - Initially refusing feeding tube raising capacity concern which was ongoing assessment; appointed mother as HCPOA though never activated

- Initial attempts at weight restoration with structured normalized nutrition plan
- Fluoxetine was started and titrated to 80mg to target OCD symptoms
- Each discipline involved noted traits and behaviors that prevented effectively addressing FTT (i.e. refusing to let food leave room, piling snacks, refusing to order new meals until previous one finished)
  - Difficulty describing obsessions and compulsions; extended latency of response thought to be focus on internal thoughts secondary to OCD
- HD10 primary team made dx of ARFID based on persistent failure to meet appropriate nutritional and/or energy needs associated with significant weight loss, nutritional deficiency, dependence on oral nutritional supplements, marked interference with psychosocial functioning without distorted self-perception of body weight or shape
- Until this time patient was losing weight → initiation of institutional ED feeding protocol
- HD11 SLUMS 27/30
- HD12 deemed to not have capacity, though after extensive discussion with team and mother, agreed to DHT placement HD13
  - Required significant support around meal completion and distress tolerance with nutrition
  - Visible anxiety when faced with larger portions and types of food
- Ongoing diagnostic clarification – ARFID, traits consistent with OCPD (defenses of personality rigidity and cognitive inflexibility In ceding control, autonomy, and order.
  - Health psychology tailored approach; Assessment of coping, mindfulness based intervention, MI, supportive psychotherapy
  - Provide health and behavior interventions for OCD
  - PT/OT incorporated CBT with physical conditioning
  - Modified eating disorder protocol
- HD90 DHT removed, consistently meeting daily caloric goal (often mostly supplemented with Ensure or magic cups)
  - Weight plateau given increased physical activity with PT/OT despite met goals
- Prioritization shifted to disposition rather than achieving 75% of IBW
- Discharged with weight of 76lbs (70.1% IBW), fluoxetine 80mg, ongoing recommendations for IOP or residential treatment; throughout hospitalization she and mom both declined treatment outside of their home
- Began telehealth appointments from home with psychologist, continued to meet DSM-V criteria for ARFID
- Unfortunately, comorbid diagnoses of both OCD and OCPD have since impeded ability to access appropriate outpatient level of care for disordered eating

Discussion and Conclusion



Graph 1: Bodyweight and BMI During Hospitalization in our patient with ARFID comorbid with OCD and OCPD over a 100 day hospital course

Discussion

- The delay in diagnosis led to initial adherence to the standard eating disorder protocol which failed to address the OCD and ARFID symptoms and subsequent stagnant weight despite the protocol.
- Additionally, what was initially seen as resistance to oral intake could not be explained by the body image disturbance and restrictive behaviors of anorexia nervosa. This resistance did cause the medical team to raise concerns for decision-making capacity related to enteral nutrition.
- The identification of the ARFID diagnosis and further exploration of the role of OCD compulsions that contributed to food avoidance led to restructuring care interventions. A tailored, multidisciplinary approach to therapies and adjustments to the eating disorder protocol that reflected the multiple psychiatric co-morbidities resulted in improved nutrition intake, weight gain, improved mobility and well-being.
- Having only made its first appearance in the DSM-5,[1] we hypothesize that the novelty of the ARFID diagnosis in adults may result in its frequent omission from many clinicians' differential diagnoses. Further, the clinical heterogeneity associated with ARFID frustrates its diagnosis, and requires further study, which is ongoing.[1] While some patients may present with acute changes in intake secondary to an event such as choking, others present after a much more chronic and insidious history, such as our patient. In our patient's case, the slow evolution of her course likely contributed to her delayed presentation while her OCD and OCPD comorbidities delayed diagnosis and subsequent treatment.
- Our assessment was further challenged by the fact that prolonged disturbances in nutrition may have conferred harmful physiological consequences, with a "starved brain."[5]
- Psychiatric comorbidities, including anxiety disorders, ASD, and attention deficit hyperactivity disorder, are common among individuals with ARFID.[8] In our case, cognitive slowing due to malnutrition was considered given multiple vitamin deficiencies. It was determined that apparent cognitive deficits were better explained by mental rituals related to OCD that impacted eating disorder interventions.
- Feeding difficulties are common in patients living with either OCD or OCPD. Per the DSM-5, a secondary diagnosis such as an eating disorder is not warranted if subsidiary to a mental condition such as OCD, except in certain circumstances where outcomes are "sufficiently severe" as were apparent in this case.

Conclusion

- Failure to thrive, food avoidance, and medical complications of malnutrition can be secondary to both the compulsive rituals of OCD and the eating-related somatic fears associated with ARFID, a relatively new diagnostic entity of eating disorder in adults not based on based on body image.
- Hospital management of ARFID with OCD may benefit from a combination of a targeted eating disorder protocol and a multidisciplinary CBT approach.
- Paramount to effective treatment is a multidisciplinary team consisting of medicine, the consultation-liaison psychiatrist, health psychology, and physical and occupational therapy.
- More research is needed around understanding the various clinical presentations and approaches to management. Increased awareness of ARFID in adults, the various subtypes, and associated comorbidities are important for early diagnosis and treatment.

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