Psychosis Due to Malnutrition in a Patient with Anorexia Nervosa

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Introduction

Psychotic episodes occur in 10-15% of patients with eating disorders. The prevalence of psychotic disorders in anorexia nervosa is comparable to the general population, (Brodrick 2020), however, the restrictive subtype of anorexia nervosa is more likely to exhibit psychotic symptoms (Sarro 2009). Malnutrition can contribute to psychosis by causing nutritional deficiencies, metabolic abnormalities and sleep deprivation. Patients should not be given a diagnosis of a primary psychotic disorder until refeeding has occurred (Brodrick 2020). The following case describes a patient with anorexia nervosa who initially presented psychotic due to severe malnutrition that ultimately resolved after two days of refeeding.

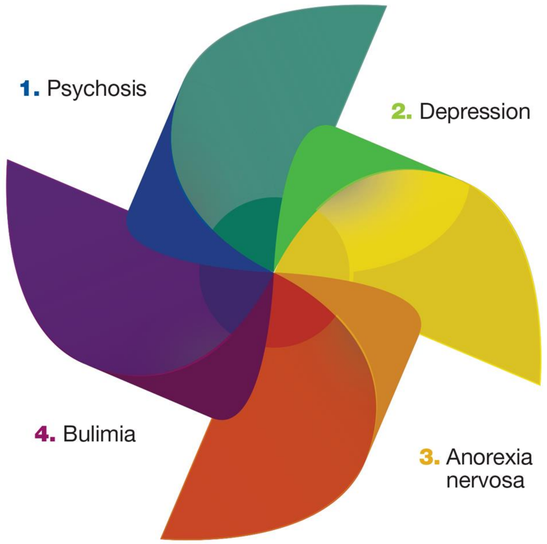

Figure. Overlap of different phenotypic expressions in psychiatric disorders.

Case

A 32 year old female with a history of anorexia nervosa and severe alcohol use disorder was brought to the emergency room on a detention warrant after making suicidal statements. She was found to have a blood alcohol level of 301, multiple electrolyte abnormalities and a BMI of 9.73. She was admitted to the medical floor and psychiatry was consulted for suicidal ideation and management of anorexia. At time of interview, the patient was floridly delusional. She believed that her enlarged bilateral salivary glands, lanugo, difficulty ambulating, and cognitive slowing were due to "witchcraft" rather than her severe malnutrition. She believed she could live without eating because "God" was protecting her. She did not believe she had anorexia or that her weight was too low. She refused all forms of food, nutrition and medication offered to her while in the hospital. Using Grisso and Appelbaum criteria, she was determined to lack decision making capacity.

Mental Status Exam

- Disheveled
- Psychomotor retardation
- Guarded, evasive
- Slow speech, prolonged latency
- Flat affect
- Profoundly depressed
- Illogical
- Auditory and visual hallucinations present
- Paranoid with persecutory delusions
- Suicidal ideation present
- Poor insight and judgement

Physical Exam

- Alert, oriented x4
- Severely cachectic
- Enlarged bilateral salivary glands
- Lips, mucosa and tongue dry
- Poor dentition
- Lanugo
- Muscular wasting
- Unsteady gait

Labs

- WBC 2.14
- Hgb 8.9, Hct 26.9, MCV 101.1
- Magnesium and phosphorus wnl
- Albumin 2.9
- Potassium 2.9
- Calcium 7.9
- Glucose 60
- AST 94, ALT 67
- Ethyl Alcohol 301
- HgA1c <3.8
- EKG: QTc 474
- Vitamin B12, folate wnl
- Vitamin C 39
- Zinc 23.8
- Vitamin D 34.3

Treatment

Palliative Care was consulted for advanced care planning. The patient was determined to lack capacity and total parenteral nutrition with use of restraints/sedation if necessary was recommended. The patient was transferred to the ICU for insertion of an NG tube with trickle feeds and close monitoring for refeeding syndrome. After two days of feeding, the patient's psychosis resolved and she regained capacity. On the day of discharge, the patient was able to recognize that she has anorexia and the risks of refusing treatment. She was no longer endorsing suicidal ideations and was able to reliably contract for safety. It was recommended that the patient remain in the hospital to increase nutrition, but she elected to leave AMA and follow up outpatient for treatment of anorexia.

Discussion

This case offers an example of co-occurring psychosis in a patient with established anorexia nervosa that resolved after treating her malnutrition. Often, it is difficult to differentiate whether the etiology of presenting psychosis is secondary to malnutrition verses a primary psychotic disorder. The resolution of this patient's psychosis after refeeding suggests her psychosis was due to severe malnutrition. It also further highlights the importance and necessity of a capacity evaluation in order to treat the patient promptly and appropriately.

Conclusion

This case underscores the importance of recognizing psychosis secondary to medical causes, specifically malnutrition, and the need for capacity evaluation when determining treatment.

References

Brodrick BB, Jacobs MA, McAdams CJ. Psychosis in Anorexia Nervosa: A Case Report and Review of the Literature. Psychosomatics. 2020 Mar-Apr;61(2):181-187. doi: 10.1016/j.psym.2019.06.003. Epub 2019 Jun 27. PMID: 31371095;PMCID:PMC6933101.

Sarró S. Transient psychosis in anorexia nervosa: review and case report. Eat Weight Disord. 2009 Jun-Sep;14(2-3):e139-43. doi: 10.1007/BF03327812. PMID: 19934628.

Seeman MV. Eating Disorders and Psychosis. Psychiatric Times. 2016 April 29. Vol 33 No 4, Volume 33, Issue 4.