

Severe Protein-Calorie Malnutrition in a Patient with Psychiatric Illness: Challenges in Nutritional Rehabilitation

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Introduction

- Protein-calorie malnutrition is rare among younger adults in developed countries but prevalent in at-risk groups, particularly institutionalized individuals and those with chronic medical or psychiatric conditions.
- Patients with severe psychiatric disorders have heightened risk due to impaired insight, medication side effects, and food refusal.
- Advanced malnutrition results in significant metabolic instability and potentially fatal complications, including refeeding syndrome during nutritional rehabilitation.

Case Presentation

- A 41-year-old female group home resident presented to the emergency department after a syncopal episode.
- Her history included paranoid schizophrenia, bipolar disorder with psychotic features, and Crohn's disease. Caregivers described several weeks of near-total cessation of oral intake.
- On evaluation, the patient was profoundly malnourished, with a BMI of 8.6 kg/m² and hypotension (80/69 mmHg). Physical exam revealed cachexia, severe temporal wasting, diffuse muscle atrophy, bilateral +4 pretibial edema, and oral candidiasis.
- Labs showed marked hypoalbuminemia (0.8 g/dL) and hypophosphatemia (1.8 mg/dL).
- Findings were consistent with advanced protein-calorie malnutrition and high risk for refeeding syndrome.
- She was admitted to the intensive care unit for management of hypotension and volume depletion. After stabilization, cautious nutritional rehabilitation was initiated. She received high-calorie oral supplements and underwent close electrolyte monitoring.
- Despite initial tolerance, she persistently refused oral intake and repeatedly removed nasogastric and parenteral nutrition access. Plans for percutaneous endoscopic gastrostomy (PEG) tube placement were delayed due to complications, including small bowel obstruction and ascites.
- After repeated admissions for less severe episodes, her psychiatric medications were adjusted, and her appetite was stimulated with various foods. Today, her BMI has improved to 18.1 kg/m², and she is doing well.



Figure 1: CT of chest showing bilateral pleural effusions - Day 3

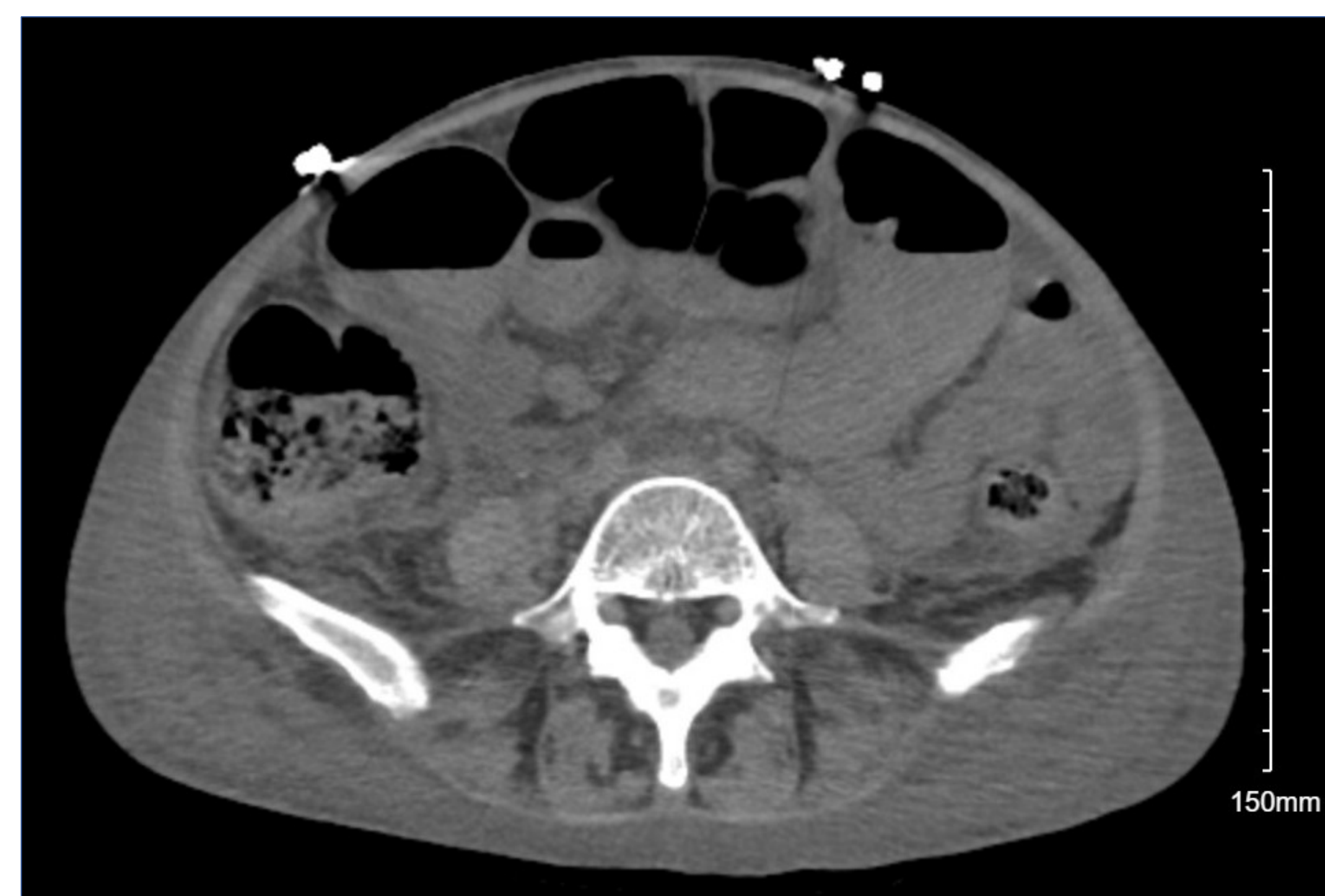


Figure 2: CT of Abdomen showing ascites, dilated bowel with air and fluid - Day 3



Figure 3: CT of abdomen showing passage of contrast through bowel - Day 18

Conclusions

- This case highlights the severe consequences of persistent food refusal in patients with chronic psychiatric illness. Individuals with disorders such as schizophrenia are particularly vulnerable to malnutrition. Impaired judgment, delusional beliefs about food, and poor adherence contribute to this risk. Comorbid medical conditions, such as Crohn's disease, may further worsen nutritional deficiencies.
- Prevention of refeeding syndrome is critical in the management of severe malnutrition. This potentially fatal condition results from rapid electrolyte shifts after nutritional repletion.
- Hypophosphatemia is a hallmark and requires careful monitoring and gradual caloric advancement. In this patient, early recognition allowed for cautious nutritional intervention.
- Management was complicated by intolerance of both enteral and parenteral nutrition, which limited treatment options. Gastrointestinal complications, specifically bowel obstruction and ascites, precluded PEG tube placement.
- These limitations highlight the necessity of a multidisciplinary approach, requiring medical, psychiatric, nutritional, and surgical teams to address underlying psychiatric pathology and nutritional requirements.
- Severe protein-calorie malnutrition in patients with psychiatric illness presents major diagnostic and therapeutic challenges.
- Persistent food refusal can cause profound metabolic disturbances and complicate nutritional rehabilitation. Early recognition and close monitoring for refeeding syndrome are essential.
- Coordinated multidisciplinary care is critical. Addressing psychiatric and behavioral barriers to nutrition is also necessary to improve outcomes in this high-risk population.

References

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