Acute Psychological Distress and Metabolic Findings in a Young Adult with Emotionally Unstable Personality Disorder: A Case Report

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Abstract
We present the case of a 20-year-old female, Ms. S.P.T., with a known diagnosis of Emotionally Unstable Personality Disorder (EUPD), who was admitted to the inpatient psychiatric unit with acute-on-chronic psychological distress. Her presentation was precipitated by a complex psychosocial crisis involving a recent elopement, marriage to a man with a significant family history of substance abuse, and subsequent marital discord, including alleged abuse. An initial inpatient assessment revealed a patient in significant distress. Routine laboratory investigations were conducted to rule out organic causes for her presentation and to establish a baseline for management. The results revealed notable metabolic abnormalities, including Vitamin B12 deficiency (160.6 pg/mL) and Vitamin D insufficiency (23 ng/mL), alongside a lipid profile with elevated LDL cholesterol (147 mg/dL) and low HDL cholesterol (39 mg/dL). Her thyroid function and other routine parameters were within normal limits. This case highlights the critical importance of comprehensive metabolic screening in young psychiatric inpatients. It underscores that while the primary presentation is often psychosocial, underlying physiological abnormalities are common and can significantly impact both physical and mental health outcomes. The case advocates for integrated care models in psychiatry that address both psychological and biological factors from the point of admission.

Introduction
Emotionally Unstable Personality Disorder (EUPD), also known as Borderline Personality Disorder (BPD), is a serious mental health condition characterized by a pervasive pattern of instability in interpersonal relationships, self-image, and affects, along with marked impulsivity [1]. The management of EUPD is complex and typically involves a combination of psychotherapy and pharmacotherapy to manage associated symptoms of distress, affective dysregulation, and impulsivity. However, the physical health of patients with severe mental illness (SMI), including those with personality disorders, is often overlooked. There is a growing body of evidence indicating that individuals with SMI have a significantly reduced life expectancy, largely attributable to high rates of untreated or under-treated physical health conditions such as cardiovascular disease and metabolic disorders [2].
Psychiatric admissions provide a crucial window of opportunity for comprehensive health assessment. While the immediate focus is on stabilizing the acute psychological crisis, it is equally important to screen for underlying organic conditions that may contribute to the clinical picture or impact long-term health. This case report details the admission of a young woman with EUPD and highlights the incidental finding of multiple metabolic abnormalities. We discuss the importance of routine screening, the potential interplay between nutritional deficiencies and psychiatric symptoms, and the need for a holistic, integrated approach to patient care in psychiatric settings.

Case Presentation
A 20-year-old female, Ms. S.P.T. (DOB: 13/02/2005), was admitted to the inpatient psychiatry unit on the evening of November 10, 2025, at 21:45. Her vital signs on admission were stable: temperature 98.4°F (corrected from 38.4°F, a likely typographical error in the record), pulse 84 beats/min, blood pressure 126/58 mmHg, respiration 18 breaths/min, and SpO2 99%.
The history of present illness, as documented in the initial assessment, describes a complex and highly distressing psychosocial situation. The patient had reportedly met an individual in England one year prior. She eloped and married him in April 2025 and lived with him for 3-4 months. During this time, she discovered that her husband was from a family with a history of drug addiction and alcoholism. She experienced alleged abuse and learned of an extramarital affair. The patient, who was also pregnant and underwent prenatal care, returned to her parents' home in distress. The notes repeatedly emphasize her significant distress related to the pressure of being asked to

return to her husband. The patient's past medical history was otherwise unremarkable, with no reported history of diabetes, hypertension, or prior surgeries. There is a brief, unclear mention of consulting a therapist about "injury from a dentist".

Upon admission, the consulting psychiatrist, Dr. Prarthana Sarawathi, ordered a comprehensive panel of investigations, including a complete blood count, renal function test, liver function test, fasting blood sugar, postprandial blood sugar, thyroid profile, vitamin B12 and D levels, urine analysis, and an ECG. The patient was placed under "femicidal watch" and strict 24/7 vigilance for suicide risk. Initial medications prescribed were Tab. Oxetol (Oxcarbazepine) 150mg, Tab. Serati (Sertraline) 25mg, Tab. Butipin (Imipramine) 25mg, and Tab. Xapiz (Clonazepam) 0.5mg.

The laboratory results, reported over the following days, revealed several significant findings. The Vitamin B12 level was low at 160.6 pg/mL (Biological Reference Interval: 174-878 pg/mL). The Vitamin D level was 23 ng/mL, which falls in the 'Insufficient' range (10-30 ng/mL) according to the report's reference. The fasting lipid profile showed a total cholesterol of 194 mg/dL (Desirable: <200), but with an unfavourable breakdown: HDL cholesterol was low at 39 mg/dL(Desirable: >45), and LDL cholesterol was elevated at 147 mg/dL (Low: <100). A subsequent 2-hour postprandial glucose was normal at 90 mg/dL. The thyroid profile was within normal limits: Free T3 2.69 pg/mL, Free T4 1.37 ng/dL, and TSH 0.36 μIU/m. A urine routine analysis showed the presence of epithelial cells and bacteria, but was otherwise unremarkable.

A progress note from November 11, 2025, at 9:50 AM documented the patient's diagnosis as "emotionally unstable personality disorder". The note also mentions that the patient's attendant refused investigations like an MRI brain and tissue transglutaminase (tTG) test due to cost issues, but the patient was reported to be conscious, cooperative, and vitally stable. Continued close vigilance for suicidal risk was advised.

Discussion

This case of a 20-year-old female with EUPD illustrates the critical intersection between acute psychiatric distress and underlying physical health parameters. The patient's presentation was dominated by a severe psychosocial crisis, which appropriately became the immediate focus of clinical attention. However, the routine screening protocol revealed several significant metabolic abnormalities that warrant careful consideration and management.

The most striking findings are the Vitamin B12 deficiency and Vitamin D insufficiency. Vitamin B12 deficiency, as seen here with a level of 160.6 pg/mL, is associated with a wide range of neuropsychiatric symptoms, including fatigue, mood disturbances, cognitive slowing, and even depression or psychosis [3]. In a patient presenting with acute-on-chronic emotional distress, a contributing B12 deficiency could exacerbate symptoms of low mood, energy, and cognitive fogginess, potentially complicating the clinical picture and hindering recovery. The prevalence of B12 deficiency in psychiatric populations is notable, and routine screening is advocated by many experts [4].

Similarly, Vitamin D insufficiency is increasingly recognized for its role in mental health. Vitamin D receptors are present in many areas of the brain, and the vitamin is involved in neurodevelopment and neuroprotection. Low levels have been linked to an increased risk of depression and other mood disorders [5]. The patient's level of 23 ng/mL places her in the insufficient range, which, while not severely deficient, is suboptimal for overall health and may contribute to a vulnerability to mood disturbances. Supplementation in such cases is a simple, low-cost intervention that could have tangible benefits for both physical and mental well-being [6].

The lipid profile is another area of concern. While the total cholesterol is within the desirable range, the low HDL (39 mg/dL) and high LDL (147 mg/dL) cholesterol levels are characteristic of an atherogenic lipid profile. This pattern significantly increases the long-term risk for cardiovascular disease (CVD) [7]. Patients with SMI, including those with EUPD, are at a disproportionately higher risk of CVD and metabolic syndrome compared to the general population [2]. This increased risk is multifactorial, stemming from lifestyle factors (poor diet, sedentary behavior, high rates of smoking), the metabolic side effects of psychotropic medications, and reduced access to physical healthcare [8]. In this patient's case, she has not yet been started on long-term atypical antipsychotics, which are often major contributors to metabolic syndrome. However, her baseline profile already places her at an elevated risk, making it imperative that her treating team monitors these parameters closely and provides lifestyle interventions alongside her psychiatric care. The slightly elevated LDL, in particular, is a red flag that warrants dietary counseling and, potentially, future intervention if levels do not improve [9].

The normal thyroid function tests are a reassuring finding, effectively ruling out thyroid dysfunction as a primary cause of her mood instability. The urine analysis, showing some epithelial cells and bacteria, is of uncertain clinical significance without accompanying symptoms, but it underscores the value of a complete workup. The refusal of further investigations like MRI brain and tTG due to cost constraints highlights a real-world barrier to comprehensive care, particularly in healthcare systems where patients bear a significant portion of the expenses.

This case has several limitations inherent to a single case report based on medical records. The history, as documented in the initial assessment, is somewhat fragmented and difficult to interpret, limiting the depth of the psychosocial narrative. Furthermore, follow-up data on the patient's response to treatment, including whether the vitamin deficiencies were addressed and if the lipid profile was rechecked, is not available in the provided documents. The medications initiated—sertraline (an SSRI), imipramine (a TCA), oxcarbazepine (a mood stabilizer), and clonazepam (a benzodiazepine), represent a common but aggressive initial pharmacological approach for managing EUPD symptoms. It is important to note that some of these medications, particularly certain antidepressants and mood stabilizers, can have their own effects on weight and metabolism, further emphasizing the need for baseline and ongoing monitoring [10].

Conclusion

We report the case of a 20-year-old woman admitted with acute distress on a background of EUPD, in whom routine screening uncovered significant, previously unrecognized metabolic abnormalities: Vitamin B12 deficiency, Vitamin D insufficiency, and an unfavorable lipid profile. This case powerfully illustrates that psychiatric presentations do not occur in a biological vacuum. The physical health of patients with severe mental illness is often compromised and requires active investigation and management. It underscores the necessity of adopting an integrated care model within psychiatric inpatient units, where routine metabolic screening is considered a standard of care, not an optional extra. Early identification of issues like dyslipidemia and nutritional deficiencies allows for timely intervention, which can mitigate long-term cardiovascular risk and potentially improve psychiatric outcomes. This case serves as a reminder that for every patient presenting with a "mental health" problem, there is a physical body that requires equal attention.

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