



Case Report: Depression masking as chronic fatigue syndrome – A Diagnostic Challenge in Primary Care

Dr Adnan Rana¹, Dr Atif Khurshid²

¹General Practitioner, MBBS, MRCP (UK)

²General Practitioner, MBBS, MRCP (UK)

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ABSTRACT

Chronic fatigue syndrome (CFS) and major depressive disorder (MDD) share overlapping symptoms, leading to potential misdiagnosis in primary care. This case report discusses a middle-aged patient initially diagnosed with CFS, later confirmed to have MDD following a psychiatric evaluation. The report highlights diagnostic challenges, the importance of mental health screening in fatigue presentations, and the role of primary care physicians in distinguishing between the two conditions.

Keywords: Chronic fatigue syndrome, major depressive disorder, primary care, misdiagnosis, fatigue

I. INTRODUCTION

Fatigue is a common presenting complaint in primary care, often leading to diagnostic dilemmas due to its association with multiple medical and psychiatric conditions [1]. Chronic fatigue syndrome (CFS) is a complex disorder characterized by persistent, unexplained fatigue lasting more than six months, along with cognitive and musculoskeletal symptoms [2]. However, fatigue is also a core symptom of major depressive disorder (MDD), complicating diagnosis in primary care settings [3]. This case report illustrates a scenario where MDD was initially misdiagnosed as CFS, emphasizing the need for comprehensive psychiatric evaluation in patients with unexplained fatigue.

II. CASE PRESENTATION

Patient History

A 42-year-old woman presented to her general practitioner (GP) with a six-month history of persistent fatigue, sleep disturbances, and difficulty concentrating. She reported muscle pain and post-exertional malaise but denied fever, weight loss, or night sweats. The patient had no significant past medical history, except for mild anxiety treated with cognitive behavioural therapy (CBT) five years earlier.

Clinical Examination and Initial Investigations

Physical examination was unremarkable, with normal vital signs. Initial investigations included:

- **Full blood count (CBC):** Normal
- **Thyroid function tests:** Normal
- **Vitamin B12 and folate:** Within range
- **Inflammatory markers (CRP, ESR):** Normal
- **Serology for Epstein-Barr virus and cytomegalovirus:** Negative
- **Basic metabolic panel and liver function tests:** Unremarkable

Given the absence of organic pathology, a preliminary diagnosis of chronic fatigue syndrome was made based on the 2015 Institute of Medicine criteria [4]. The patient was advised on lifestyle modifications, including graded exercise therapy and sleep hygiene, and was scheduled for follow-up in three months.

Diagnostic Reassessment

During the follow-up visit, the patient reported worsening fatigue and social withdrawal. A detailed psychiatric assessment revealed anhedonia, feelings of worthlessness, and passive suicidal thoughts. The Patient Health Questionnaire-9 (PHQ-9) score was 19, indicating severe depression [5].

A diagnosis of major depressive disorder (MDD) with somatic symptoms was made, prompting discontinuation of CFS-targeted interventions. The patient was started on sertraline (50 mg/day) and referred for cognitive behavioural therapy (CBT).

Outcome and Follow-Up

After eight weeks of antidepressant therapy and psychological support, the patient's fatigue significantly improved. She regained social and occupational functioning, confirming the misdiagnosis of CFS.



III. DISCUSSION

This case underscores the challenge of distinguishing between CFS and MDD in primary care. Overlapping symptoms, particularly fatigue and cognitive impairment, often blur diagnostic boundaries [6].

Key differentiators include:

1. **Emotional Distress:** Patients with MDD typically report persistent low mood and anhedonia, while CFS patients may experience frustration but not pervasive sadness [7].
2. **Post-Exertional Malaise:** Characteristic of CFS, absent in primary MDD [8].
3. **Diurnal Variation:** Mood symptoms in MDD often worsen in the morning, whereas CFS-related fatigue remains constant or worsens after activity [9].

Failure to recognize underlying depression in fatigued patients may lead to delayed treatment and unnecessary interventions, reducing quality of life. Primary care physicians should integrate structured psychiatric screening tools, such as PHQ-9, into fatigue assessments to mitigate misdiagnosis.

IV. CONCLUSION

This case highlights the importance of considering MDD in patients with chronic fatigue, particularly when emotional distress is evident. Primary care physicians must employ a holistic approach, incorporating mental health assessments alongside physical evaluations, to ensure accurate diagnosis and effective management.

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