Crisis unveiled: Diagnosing myasthenia gravis amidst resource constraints

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ABSTRACT

Introduction: Myasthenia Gravis (MG) is a chronic autoimmune neuromuscular disorder marked by fluctuating muscle weakness, often starting with ocular symptoms such as ptosis or diplopia. A myasthenic crisis, characterised by respiratory muscle failure requiring ventilatory support, is life-threatening. Early diagnosis and treatment are vital, especially in areas with limited diagnostic resources. **Case Description:** We describe a 46-year-old woman with bronchial asthma who arrived at a district hospital complaining of generalized weakness, lethargy, and increasing shortness of breath. She was initially misdiagnosed and discharged but returned with worsening symptoms, including bilateral ptosis, ophthalmoplegia, and respiratory distress. A fatigability test was positive on reassessment. Although the ice pack test was inconclusive, clinical suspicion for MG remained high. She was admitted to the ICU and started on intravenous immunoglobulin (IVIG), corticosteroids, and pyridostigmine. A neostigmine challenge later confirmed the diagnosis. After therapy, she showed notable improvement in muscle strength and respiratory function. **Discussion:** This case highlights the diagnostic and therapeutic challenges in managing MG, especially in non-tertiary hospitals where advanced neurodiagnostic tests such as anti-AChR antibodies or electromyography may not be readily available. The importance of clinical acumen and bedside tests like the ice pack test and neostigmine (Tensilon) test becomes crucial. A delay in diagnosis could have resulted in fatal complications, emphasising the need for awareness of neuromuscular conditions in emergency settings. Furthermore, the positive response to empirical treatment supports the value of prompt therapy based on clinical judgement, even without confirmatory investigations. **Conclusion:** MG can present with vague symptoms, and early signs such as ptosis or generalised fatigue might be overlooked in busy clinical environments. This case underscores the importance of high clinical suspicion and the utility of simple bedside tests in diagnosing MG, especially during a myasthenic crisis in resource-limited settings. Prompt supportive care and immunotherapy significantly reduce morbidity and mortality. From an Islamic ethical perspective, this case reinforces the importance of Tawakkul (reliance on Allah) combined with proactive medical intervention, aligning with the Maqasid al-Shariah to preserve life (Hifz al-Nafs). The Prophet Muhammad (peace be upon him) said, "Seek treatment, for Allah has created a cure for every disease" (Sunan Ibn Majah). This guidance supports timely, evidence-based treatment even when a definitive diagnosis is pending, particularly in critical conditions like myasthenic crisis.

Keywords: Myasthenia Gravis, Myasthenic Crisis, diagnostic delay, district hospital, Islamic Bioethics