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REVIEWER'S REPORT

Manuscript No.: **IJAR-52946** Date: 24-07-2025

Title: An uncommon presentation of Bartter Syndrome in an Adult: A Case Report

Recommendation:
Accept as it is .....YES.....
Accept after minor revision.....
Accept after major revision .....
Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality			✓	
Clarity		✓		
Significance			✓	

Reviewer Name: Dr Aamina

Reviewer's Comment for Publication.

General Overview:
This case report documents a rare and clinically significant presentation of Bartter syndrome in a 48-year-old adult woman. Typically diagnosed in infancy or childhood, adult-onset Bartter syndrome represents a diagnostic challenge due to its nonspecific symptoms and overlap with other renal tubular disorders. The authors effectively illustrate the diagnostic approach, clinical findings, and management of the case, underscoring the importance of maintaining a high index of suspicion for Bartter syndrome in adult patients with unexplained hypokalemia and metabolic alkalosis.

Abstract Review:
The abstract is clear, informative, and well-structured. It outlines the patient's presenting symptoms, laboratory findings, and the clinical diagnosis with relevant specificity. The inclusion of treatment strategies and outcomes provides a concise yet comprehensive snapshot of the case. The final sentences appropriately contextualize the rarity and clinical implications of the diagnosis, reinforcing the value of the report.

Introduction Review:
The introduction effectively presents the background of Bartter syndrome, including its pathophysiology and genetic underpinnings. The concise explanation of ion transport abnormalities in the thick ascending limb of Henle provides sufficient context for readers unfamiliar with the syndrome. The reference to the

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five genetic subtypes based on mutations in specific ion channel genes adds depth and supports the scientific grounding of the report.

Case Presentation and Discussion (Implied):
Though not explicitly separated, the case narrative is detailed and clinically sound. The presenting features—generalized weakness, muscle cramps, paresthesia, and polyuria—are described clearly and correlate well with the physiological abnormalities observed in Bartter syndrome. The presence of Trousseau's sign and documented hypokalemia, metabolic alkalosis, and juxtaglomerular hyperplasia from biopsy collectively support the diagnosis.

The therapeutic approach—including intravenous correction of electrolyte imbalances, the use of ACE inhibitors and NSAIDs, and dietary modification—is appropriate and reflective of standard treatment protocols for Bartter syndrome. The mention of the patient's asymptomatic status on follow-up emphasizes the positive prognosis with timely intervention.

The differential diagnosis with conditions like Gitelman syndrome is appropriately highlighted, adding clinical relevance and educational value to the report.

Language and Presentation:
The manuscript is written in a clear, professional tone, with medical terminology used appropriately. Descriptions are precise, and the narrative flows smoothly from clinical presentation to diagnosis and management. There are no major grammatical or typographical issues that impede comprehension.

Scientific and Clinical Relevance:
This report contributes meaningfully to the limited literature on adult-onset Bartter syndrome and highlights the importance of including it in differential diagnoses in patients with persistent electrolyte imbalances and metabolic alkalosis. The case serves as a valuable educational reference for nephrologists, internists, and clinicians involved in electrolyte disorder management.

Conclusion of Review:
This is a well-documented and clinically significant case report that effectively illustrates the atypical adult presentation of Bartter syndrome. It provides relevant insights into diagnosis, management, and the importance of distinguishing between renal tubulopathies in clinical practice.