

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 88346

Title: Special electromyographic features in a child with paramyotonia congenita: A case report and review of literature

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05345731

Position: Peer Reviewer

Academic degree: BSc, MD, MSc

Professional title: Doctor

Reviewer's Country/Territory: Kazakhstan

Author's Country/Territory: China

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Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-11-12 04:02

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Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The article you've provided outlines a case study on Paramyotonia Congenita (PMC), a rare genetic disorder affecting skeletal muscle function. Here's a breakdown and review of the key points of the article: 1. **Background on PMC**: PMC is identified as a sodium channelopathy, initially identified by Eulenburg. It affects skeletal muscle and is typically diagnosed through electromyography (EMG). 2. **Case Summary**: The study reports on a 3-year-old female child diagnosed with PMC. The child's symptoms include laryngeal stridor, muffled speech, and myotonia present from birth. The symptoms worsen with cold, exposure to cool water, crying, and physical activity, but improve in warmth. Notably, the child's myotonia did not normalize even with warmth and remained unchanged after consuming potassium-rich food. This observation helps differentiate PMC from hyperkalemic periodic paralysis. 3. **Diagnostic Observations**: The child's needle EMG showed two unique types of myotonic discharges not previously documented in PMC studies: giant-amplitude potentials and irregular wave trains. These are significant findings as they expand the understanding of EMG features in PMC. 4. **Genetic Testing and Treatment**: Genetic testing revealed a heterozygous

mutation in the SCN4A gene. After a six-month treatment with mexiletine, the child's symptoms showed improvement. 5. ****Conclusion and Clinical Implications****: The case is significant for its unique EMG findings, which could assist clinicians in distinguishing PMC from neurological forms of myotonia. It broadens the known characteristics of EMG in PMC, potentially aiding in more accurate diagnosis.