



Search by title, author

Advanced  
Search

Journal of Clinical Neuromuscular Disease. 20(1):14–27, SEPTEMBER 2018

DOI: 10.1097/CND.0000000000000222, PMID: [30124556](#)

Issn Print: 1522-0443

Publication Date: September 2018

 Print

# Congenital Myasthenic Syndrome: Spectrum of Mutations in an Indian Cohort

Pavalan Selvam;Gautham Arunachal;Sumita Danda;Aaron Chapla;Ajith Sivadasan;Mathew Alexander;Maya Thomas;Nihal Thomas;

[+ Author Information](#)[Check Ovid for access](#)[View on Journal Site](#)

## Abstract

### Objectives:

To investigate the mutational spectrum and genotype–phenotype correlation in Indian patients with congenital myasthenic syndrome (CMS), using next-generation sequencing of 5 genes.

### Methods:

*CHRNE*, *COLQ*, *DOK7*, *RAPSN*, and *GFPT1* were sequenced in 25 affected patients.

### Results:

We found clinically significant variants in 18 patients, of which variants in *CHRNE* were the most common, and 9 were novel. A common pathogenic *COLQ* variant was also detected in 4 patients with isolated limb-girdle congenital myasthenia.

### Conclusions:

Targeted screening of 5 genes is an effective alternate test for CMS, and an affordable one even in a developing country such as India. In addition, we recommend that patients with isolated limb-

girdle congenital myasthenia be screened initially for the common *COLQ* pathogenic variant. This study throws the first light on the genetic landscape of CMSs in India.

[Check Ovid for access](#)[View on Journal Site](#)

## Related Topics

 [Neuromuscular Diseases](#)

## Related Articles

[The clinical spectrum of the congenital myasthenic syndrome resulting from COL13A1 mutations](#)

Brain 2019; 142(6):1547–1560.

[Missense mutations in SLC25A1 are associated with congenital myasthenic syndrome type 23](#)

Clinical Genetics 2019; ().

[Congenital myasthenic syndrome due to DPAGT1 mutations mimicking congenital myopathy in an Irish family](#)

European Journal of Neurology 2018; 25(2):e22–e23.

[Mutations in GMPPB cause congenital myasthenic syndrome and bridge myasthenic disorders with dystroglycanopathies](#)

Brain 2015; 138(9):2493–2504.

[Novel PLEC gene variants causing congenital myasthenic syndrome](#)

Muscle & Nerve 2019; 60(6):E40–E43.

[About us](#)[Privacy Policy](#)[Terms of Use](#)[Site Map](#)

Copyright © 2020 Ovid Technologies, Inc., and its partners and affiliates. All Rights Reserved.  
Some content from MEDLINE®/PubMed®, a database of the U.S. National Library of Medicine.