Reviewer's report:

In this manuscript, the authors have investigated two families with early onset X-linked Charcot-Marie-Tooth disease (CMT) and found two novel connexin32 mutations. They speculated that the mutations caused the severe structural change of the gap junction and the earlier onset of the disease than the majority of previously described mutations.

This manuscript appears acceptable for publication, but there are some comments.

Major Compulsory Revisions:

The authors concluded that the two novel mutations in the connexin32 gene have an earlier onset than the majority of previously described mutations. However, Patient V-2 in Family 2 has less severe symptoms and an obligate gene carrier V-1 in Family 2 was asymptomatic at age 18 years. The discussion about these two family members is not persuasive enough.

Discretionary Revisions:

It is not clear whether all unaffected members mentioned in Examination in Methods and V-1 in Family 2 are studied neurophysiologically.

They emphasize the asymmetrical findings in neurophysiology in these families. Are these findings reproducible? How many times are they studied neurophysiologically?

In Background, the authors mentioned mutations in connexin and skin disorders. I do not understand why these sentences are needed in this paper.

What next?: Accept after discretionary revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests.