Reviewer's report

Title: Extended effective electrodiagnosis in ulnar nerve entrapment at the elbow

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Reviewer: Pietro Caliandro

Reviewer's report:

1. Major Compulsory Revisions

The present study aim is to evaluate the most sensitive and least
time-consuming neurophysiological approach to diagnose UNE. The matter is
relevant but some important considerations are necessary. The main concern is
the used inclusion criteria. Indeed to measure sensibility the authors evaluated a
sample of patients with clinical and electrodiagnostic findings of UNE and
exclude “subjects with normal neurophysiological results…….regardless of their
symptoms and neurological findings”. That is an important methodological
problem because it is not possible to study sensitivity of electrodiagnosis in
patients with electrodiagnostic evidence of UNE, you need a gold standard
different than the element you are evaluating. According to me it is not useful to
extend neurophysiological examination if the diagnosis is already reached with a
standard neurophysiological approach. On the other hand that inclusion criteria
introduces a bias selection because it excludes all patients with symptoms
suggestive of UNE but without electrodiagnostic evidence.

Another problem is the absence of a control group composed by patients with
other pathologies. Speaking about diagnostic approach, it is necessary to
evaluate specificity too.

I suggest: 1) studying also patients without neurophysiological evidence of UNE
but with clear symptoms and signs of UNE and without possibility of other
diagnosis (radiculopathy for example), 2) introduce a control group to evaluate
specificity,3) defining a clinical gold standard although it may be difficult

2. Minor Essential Revisions

line 1 of “Results”. The authors describe the clinical findings and they say that
117 patients of 122 had paresthesias but previously they have described that 127
patients were evaluated in one arm. The same mistake is in line two of the same
section they speake about 121 patients and not about 127. Probably it is a typing
mistake

3. Discretionary Revisions

I think that the idea to study ulnar nerve in two small segments across the elbow
is very interesting because it could allow a better localization of the damage. I
suggest to evaluate this aspect in a sample of patients with clinical and
electrophysiological evidence of UNE. Of course a similar approach cannot have
the aim to improve diagnostic sensitivity but it could be a good method to better
localize the damage. It is necessary to discuss the technical problems due to the evaluation of CV in short segments.

**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