

Letter Regarding “Comments on Lumbrical Muscles Neural Branching Patterns: A Cadaveric Study With Potential Clinical Implications”

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Michele R. Colonna¹ , Paolo Titolo², Bruno Battiston², Igor Papalia¹, Franco Bassetto³, Mariarosaria Galeano¹, and Alfio Luca Costa³

Dear Editors,

We read with interest the comment addressed to our paper entitled “Comments on Lumbrical Muscles Neural Branching Patterns: A Cadaveric Study With Potential Clinical Implications.”¹

First, we would like to thank the authors for their useful and nice comments and for providing us an opportunity to briefly comment about.

We do not agree with the statement that distal nerve transfer is not so effective: There is clinical evidence in the series by Millesi and Schmidhammer, Gesslbauer et al, and Bertelli et al, cited in our paper,² that it is effective in restoring intrinsic function and avoiding atrophy.

We also disagree with the statement that poor results should be attributed to the discrepancy in fiber number: Wolfe in his papers stated on clinical data that the winning ratio should be 0.7/1, and our data support the first lumbrical fibers having a good ratio with respect to the recipient ulnar motor branches of the first interosseous space.³ Regarding other valuable alternatives, the first palmar interosseous as proposed by Ozcelik et al could also be taken into consideration, even if with some concerns addressed to the technique.⁴

Indeed, reverse end-to-side nerve transfer has been questioned, but also shown to be an interesting option.⁵

The statement that the first lumbrical could be used to reinnervate the adductor pollicis is restrictive, as it can also be used to reinnervate the first dorsal interosseous, as just proposed for the opponens. Moreover, as pointed out in the literature, the aim is to effectively recover the pinch between the thumb and the index, not a “passing pinch.”²

As far as it concerns the problem of connecting different layers (superficial to deep), we refer to Millesi and Schmidhammer’s experience,² who obtained good results with the same reverse operation and, moreover, without graft; Gesslbauer et al also connected 2 different layers with a longer bridge graft and reported good results.² Finally, a longer and

self-adjusting bridge graft could work, as proposed in our previous work.² The authors propose “the use of the second lumbrical,” and we have not yet satisfying data (in our previous study, some artifacts made us rule out the data from the second lumbrical).

ORCID iD

Michele R. Colonna  <https://orcid.org/0000-0001-5586-4066>

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¹University of Messina, Italy

²CTO Hospital, Turin, Italy

³University of Padua, Italy

Corresponding Author:

Michele R. Colonna, University of Messina, Viale della Libertà 395, 98121 Messina, Italy.

Email: mrcolonna1@gmail.com