2019 Ejtm Special on Muscle Fascia

Carla Stecco, Raffaele De Caro

Department of Neurosciences, Section of Human Anatomy, University of Padova, Padova, Italy

Abstract

For many years the fasciae have been considered by the anatomists only as a "white envelope for the muscles", that is generally removed in anatomical tables, to recognize muscle nerves and vessels. This is one of the reasons that different descriptions of the fasciae exist. On the other hand, in the last years the fasciae and their properties are becoming of central importance to clinicians practicing in various conventional and alternative therapies. The results from the worldwide research activities constitute a body of significant and important data, but this clinical interest is not supported by in-depth comprehension to how integrate the new knowledge about fasciae with the classical biomechanical models based on muscles, tendons and bones. To close this gap an Ejtm Special on "Muscle Fascia" will be published September 30, 2019, but the typescripts will be added to the Ejtm Early Release list as soon as all authors will approve their Epub papers. Deadline for original articles and reviews is June 1st, 2019, but the Editors hope that authors submit their typescripts much earlier.

Key Words: fascia, connective tissue, epimysium, proprioception, motor coordination

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For many years the fasciae have been considered by the anatomists only as a "white envelope for the muscles", and little attention has been given to their macroscopic and histological anatomy. In anatomic displays the fascia is generally removed, so the viewer can see nerves and vessels but fails to appreciate the fascia which connects, and separates, these structures. It is probably for this reason that different descriptions of the fasciae exist in literature.[1-2] In contrast to this, in the last years the fasciae and their properties are becoming of central importance to clinicians practicing in various conventional and alternative therapies and the fascial tissue is actually the subject of a wide range of scientific research with many specializations. The results from the worldwide research activities constitute a body of significant and important data, but this clinical interest is not supported by in-depth comprehension to how integrate the new knowledge about fasciae with the classical biomechanical model based on muscles, tendons and bones.

Thus, the aim of the "2019 Ejtm Special on Muscle Fascia", Carla Stecco and Raffaele De Caro Guest Editors, is to point attention to several open questions:

- ✓ Do fasciae have a role in pain perception?[3-5]
- ✓ How fasciae and muscles interact during movement? Have the fascia a role in posture?[6]
- ✓ How do the various fasciae appear under ultrasound, MRI, and CAT scans? Could these instruments help us to understand the structure of the fasciae in living people? And what about the relationship between fasciae and surrounding structures?[7-10]
- ✓ What is the role of the extracellular matrix, and in particular of the hyaluronic acid component?[11]
- ✓ Could fasciae be considered elastic tissue? What is the percentage of elastic fibres within fasciae? Are there regional variations?[12]
- ✓ Are fasciae innervated? What type of receptors could be recognized within fasciae? Can fascia play a role in proprioception?[13-15]
- ✓ Do the fasciae possess a basal tonus? Have they the capacity to actively contract?[16]
- ✓ Do fasciae have a role in motor coordination?[17]

Answers to these questions will add to the many tools of mobility and pain rehabilitation strategies,[18-30] contributing to clinician's understanding of the

biomechanical behavior of the fasciae, of their role in acute and chronic myofascial pain syndromes and of the effectiveness of different therapies.

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Conflict of Interest

The author declares to have none conflict of interests.

Ethical Publication Statement

Author confirms that he has read the Journal's position on issues involved in ethical publication and affirms that this report is consistent with those guidelines.

Corresponding Author

Carla Stecco, Department of Neurosciences, Section of Human Anatomy, University of Padova, Padova, Italy.
E-mail: carla.stecco@unipd.it

Email of Coauthor: raffaele.decaro@unipd.it

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