

Morphological analysis of human muscular fasciae from patients with peripheral nerve entrapment syndromes: a semiquantitative investigation

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Canalicular syndromes of the peripheral nerves can be caused both by a chronic compression and by a chronic traction on nerve trunks. The application of the concept of tensegrity to the human locomotor apparatus is a promising tool to shed a light into the pathology of tractional peripheral nerve entrapments. We present our findings from the analysis of human fascial samples obtained during surgery for peripheral nerve entrapments. A semiquantitative analysis of histological sections was performed using a dedicated software to assess the extent of different tissutal patterns found in the specimens. Typical findings were the loss of the delicate connective tissue typically found at the nerve-fascial interface and the development of massive fibrosis attaching the epinevrium to the surrounding muscular fasciae. Observed morphological changes were consistently found in the examined population and might be at the base of peripheral nerve entrapments.

Key words

Tensegrity, human fascia, morphology, peripheral nerve entrapment