New fascial finding: band-like structure between m. vastus lateralis and m. biceps femoris

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BACKGROUND: Hypothesis of this study is that fascial anatomy provides new aspects in functional anatomy. M. biceps femoris and m. vastus lateralis are broad muscles, which are participating force transmission of the hindquarters. Aim of the study was to dissect fascial anatomy of the hind limb region in more details than present literature shows.

METHOD: Dissection of eleven equine cadavers in Finland, Germany and Denmark (2017-2018). The horses were euthanized for other reasons than the study and in accordance to national and international rules for animal welfare. Fascial anatomy was recorded with video camera and imaging.

RESULTS: The dissection showed a band-like thick, dense and collagenous fascial sheet originating from the trochanter major and inserting into the lateral aspect of fascia genus. M. biceps femoris was also found to attach in this region with a tight tendinous insertion. The aponeurotic fascia layer under m. biceps femoris was separated from the band-like structure with a thin layer of loose connective tissue.

CONCLUSION: Fascia is participating proprioception and force transmission. A broad band-like structure attached between m. biceps femoris and m. vastus lateralis seems to be involved in elastic recoil, movement and stability of the hip joint and stifle in conjunction with the aponeurotic fascial layer of m. biceps femoris.

IMAGES AT NEXT PAGE!
FIG 1. M. biceps femoris from the superficial view

FIG 2. Band-like sheet between m. vastus lateralis and m. biceps femoris

FIG 3. Insertion of the aponeurotic fascia of m. biceps femoris to the lateral part of the fascia genu.