

平成 22 年度 博士後期課程学位論文要旨

学位論文題名 (注：学位論文題名が欧文の場合は和訳をつけること)

Effects of position and force of calf compression with graded ankle plantar flexion on central aponeurosis displacement

(下腿部への圧迫位置と圧迫強度が段階的足関節底屈筋力条件時の中心腱膜移動距離へ及ぼす効果)

学位の種類： 博士 (理学療法学)

人間健康科学研究科 博士後期課程 人間健康科学専攻 理学療法科学域

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注：1,000 字程度 (欧文の場合 300 ワード程度) で、本様式 1 枚 (A 4 版) に収めること

[Purpose]

We investigated the effects of position and force of calf compression with graded ankle plantar flexion on central aponeurosis displacement.

[Subjects]

Ten healthy adult men participated in this study.

[Methods]

The subjects were placed in the prone position with knee and ankle joint angles of 0° and asked to perform graded isometric plantar flexion at 0, 5, 10, 15 kgw. The position of compression was either proximal or distal to the maximum circumference of the calf. Force of compression was set at 0, 50, 100, 150 mmHg. Under these conditions, displacement of the central aponeurosis of the Gastrocnemius lateralis, soleus and triceps surae-Achilles tendon junction was measured by ultrasonography.

[Results]

With isometric contraction, central aponeurosis displacement of the gastrocnemius lateralis and soleus with 100 or 150 mmHg of distal compression was significantly lower than at 0 mmHg of distal compression. However, with proximal compression, central aponeurosis displacement with isometric contraction did not change in relation to the compression force.

[Conclusion]

This study showed that even when the level of compression remains unchanged, compression achieves different effects depending on the position of compression.