運動療法にともなう筋組織修復時の細胞外マトリックスの発現の変化と筋支配神経の誘導

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Revelation of a extra-cellular matrix and innervations. Of the nerve to the muscle at the time of the muscular tissue repair accompanied by therap eutic exercise

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一般

Research Institution

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Research Abstract

From a functional viewpoint, a repair of the muscular tissue is an important problem on rehabilitation medicine. We examined a role of the therapeutic exercise in the muscular tissue repair. The therapeutic exercise from immediately after a muscle damage induces the activation and proliferation of muscle satellite cell, and earlier appearance of the myotube cell was recognized. And, it became clear that the regeneration of the muscular tissue is accelerated. In the case, fibronectin, laminine and type IV collagen were proved to ambient of the myotube. These extracellular matrix play an important role to the bonding and a shift of the cell. It is conjectured that these are getting involved in a shift and proliferation to a damage site of a myoblast, in order that the constitution of the muscular tissue breaks out in the damage muscle. It is conceivable that even the reinforcement of survival maintenance of the muscle fiber that is not necrosing and resist to the muscle damage to muscle regeneration besides, a control of the proliferation and differentiation of a myoblast is important. Furthermore, reinnervation is essential to regeneration fibrous function acquisition.Also, even extracellular matrix such as laminine and type IV collagen have important relation as an adjustment role of muscle regeneration. Not only muscle regeneration is examined only the regeneration but also we need to recognize the interaction between "the neuromusculer system and the extracellular matrix".

Research Products (9 results)

All Other

All Publications

[Publications] Haida Nobuhide: "Effect of hindlimb re-weighting, low -and high -intensity exercise on disuse atrophy of rat solens muscle"金沢大学医学部保健学科紀要. 24. 1-7 (2000)

[Publications] Haida Nobuhide: "Adaptation of slow and fast gastrocnemins muscle to isometric exercise in rat"金沢大学医学部保健学科紀要. 24. 39-44 (2000)

[Publications] Yamazaki Toshiaki: "Influence of the time when weight bearing is started on disuse atrophy in rat solens muscle"J. Jpn. Phys. Ther. 4. 13-18 (2001)

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