Abstract

Relevanz faszialer Strukturen des Halses in Bezug auf Beweglichkeit, Schmerz und Wohlbefinden bei Patienten mit chronischem Nackenschmerz

Kirsten Jacobi

Chronischer Nackenschmerz ist ein nicht klar definiertes Krankheitsbild. Die Prävalenz liegt zwischen etwa 34% und 66%.
Die Hauptfrage dieser Arbeit ist, ob die biomechanischen und sensorischen Funktionen des faszialen Netzwerks bei muskuloskelettalen Dysfunktionen ohne organisches Korrelat, wie sie bei chronischen Nackenschmerzen auftreten, eine Rolle spielen.
Das kann durch die Entdeckung von faszialer Kraftübertragung, das Wissen um die Reaktion von Fibroblasten auf mechanische Reize wie Druck und Zug und die Feststellung, dass Faszien in hohem Maß nocizeptiv innerviert sind, als erwiesen angesehen werden.
Die in Vitro-Forschungsergebnisse zur Kraftübertragung, zu der Funktion von Myofibroblasten und zu der faszialen Innervation zeigen, dass es ein neues mechanisches Modell der Kraftübertragung der Muskulatur unter Berücksichtigung der Faszien geben sollte. Bis dieses beim Menschen verifiziert ist, muss weiterhin geforscht werden.
Die Anatomen können durch die gezielte Präparation der Faszien und Muskeln in ihrem anatomischen Kontext ebenfalls zum Verständnis des Fasziensystems beitragen. Das Bindegewebe ist mehr als eine passive Hülle für Muskeln und Organe.

Es bedarf unter der Berücksichtigung dieser aktuellen Forschungsergebnisse neuer Hypothesen zur Rolle der Faszien bei der Chronifizierung von Schmerz. Weiterhin gibt es erst wenige qualitativ hochwertige klinische Studien, die die Effektivität der osteopathischen Behandlung bei chronischen Nackenschmerzen untersucht haben. Bislang gibt es keine Studie, die die aktuellen Forschungsergebnisse berücksichtigt und im Rahmen einer klinischen Studie angewandt hat.
Durch eine solche Studie kann die Effektivität faszialer osteopathischer Behandlungen, beispielsweise mit einem Behandlungskonzept der Halsfaszien, untersucht werden. Die Behandlungsidee sollte hierbei sein, Kokontraktion zu verringern, fasziales Gleiten zu verbessern, den Durchfluss von Arterien, Venen und Lymphgefäßen zu erhöhen, die Gleitfähigkeit der Nerven zu verbessern und die Funktion des vegetativen Nervensystems zu normalisieren.

Abstract

Relevance of fascial structures of the neck regarding mobility, pain and wellbeing of patients with chronic neck pain

Kirsten Jacobi

Chronic neck pain is a not clearly defined clinical picture. The prevalence lies somewhere between 34% and 66%.
The main question of this thesis is whether the biomechanical and sensory functions of the fascial network play a role in musculoskeletal dysfunctions, without an organic correlate, as they happen in chronic neck pain.
This can be regarded as proven because of the discovery of fascial power transfer, the knowledge about the reaction of fibroblasts on mechanical impulses such as pressure and traction, and the discovery that fascia are innervated nociceptive to a large extent.
The in-vitro research results on power transfer, on the function of myofibroblasts, and on fascial innervation show that there should be a new mechanical model on power transfer of the musculature under consideration of the fascia. Research still has to be done until this is verified in humans.
In their anatomical context anatomists can also add to the understanding of the system of the fascia by selective dissection of the fascia and muscles. The connective tissue is more than a passive cover for muscles and organs.

Taking into account these current research results, new hypotheses on the role of the fascia in chronification of pain is needed. Besides, so far there are only a few qualitatively high-grade clinical studies that have researched the efficacy of osteopathic treatment in chronic neck pain. Until now there is no study that has taken the current research results into account, and applied them in the scope of a clinical study.
By such a study the efficacy of fascial osteopathic treatments – for example with a treatment concept for the neck fascia – could be surveyed. The treatment idea at this should be to reduce co-contraction, to improve fascial gliding, to increase the flow rate of arteries, veins and lymphatic vessels, to increase the gliding ability of the nerves, and to normalize the function of the vegetative nervous system.

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