P118 - ROLE OF FASCIAE IN NONSPECIFIC LOW BACK PAIN

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Introduction: More and more evidences show how the thoracolumbar fascia is involved with nonspecific low back pain. Nevertheless, no treatments having the myofascial tissue as a target are mentioned in the lately guidelines regarding low back pain. Moreover, in the cases considering the fascial tissue, a dysfunction of just the thoracolumbar fascia or of the intimately contiguous myofascial tissue is generally recognized, not a dysfunction of the entire anatomically connected fascial tissue. Indeed, recent studies about anatomy have shown the presence of a continuity between the thoracolumbar fascial and the deep fascia of the limbs. According to these studies the posterior lamina of the thoracolumbar fascia continue distally with the gluteal fascia and the fascia lata, while it incorporates the trapezius and the latissimus dorsi proximally. It then has a more distal myofascial expansion within the brachial fascia. Several more distal myofascial expansions guarantee an anatomical continuity until hands and feet. Often, the Fascial Manipulation® does not treat the area where the painful symptoms are but tends to be applied on the fascial tissue of other areas of the body taking advantage on that anatomical continuity concept.

Purpose/Aim: Investigating, according to the fascial continuity concepts, which effects the manipulation of the myofascial tissue of the limbs could have on nonspecific low back pain cases.

Materials and Methods: Five patients among those affected by nonspecific low back pain have been selected. Those are four women and one man aged between 40 and 62 years old. Three of them were affected by acute symptoms while two by chronic ones. During the first examination specific spots of the low back and of the legs or the forearms were palpated and compared. Patients' treatment focused just on the manipulation of those painful spots present in other areas of the body than the low back one and the gluteal region. The pain level (NRS) and the lumbar flexion-extension range of motion have been measured before and after each session and on the subsequent examinations after one, three and six months; the Roland And Morris Disability Questionnaire has been given on the first, one-month, three-months and six-months examinations to measure the disability.

Results: Thighs, legs, feet and forearms were treated. Each patient reported a clinically significant reduction of the painful symptoms (a NRS score difference ≥ 2) straight after the manipulation. The lumbar flexion range of motion did not show any change; while in three cases, where the treatment focused on the inferior limbs, a clinically significant increase (≥ 5°-10°) of the overall range of motion of the distal joints has been observed. A clear improvement (ROM increase > 100%) of the lumbar extension has been observed when the arms had been treated. The subsequent examinations after one and three months pointed out the conservation of the complete resolution of the symptoms and the disability in two cases, a partial conservation in two patients and a relapse in a fifth one.

Conclusion(s): The lumbar pain perception is decreased by the myofascial tissue manipulation of the limbs in the nonspecific low back pain cases. The anatomic fascial continuity between the thoracolumbar area and the deep fascia of the limbs can explain this phenomenon. In facts a previous trauma or an overuse of the limbs can alter density of hyaluronan that is present among the sliding layers of the deep fascia of the limbs. That causes an alteration of the tension balance of the thoracolumbar fascia with a consequent modified sprain of its embedded mechanoreceptors and pain. The treatment of just the lumbar district would implicate a temporary result because it is not focused on the resolution of the primary cause of the dysfunction. Just the limbs were manipulated in this study to evaluate only the effect of their manipulation. If modifications are found with the palpation of the trunk too, its manipulation would be useful for a better result. A dysfunction of the myofascial tissue non-intimately contiguous with the symptomatic area is then suggested to be taken in consideration among the causes of nonspecific low back-pain.

Keywords: Fascia, nonspecific low back pain, limb myofascial manipulation, fascial continuity, case series