Abstract

Ausgewählte fasziale Aspekte in der osteopathischen Praxis

Paolo Tozzi


Das kann Belastungen von Strukturen zur Folge haben, die von Faszien umschlossen sind, was wiederum mechanische und physiologische Vorgänge beeinflussen kann. Der osteopathische Ansatz sieht vor, fasziale Spannungen mit Hilfe von faszialen Techniken zu lösen und dadurch Schmerzen zu lindern und Funktion wiederherzustellen. Die Erklärung für den Wirkungsmechanismus faszialer Techniken basiert auf einer Vielzahl von Studien, die die plastischen, viskoelastischen und piezoelektrischen Eigenschaften von Bindegewebe untersucht haben. In dieser Arbeit werden einige der oben genannten Gesichtspunkte näher betrachtet und Belege für die therapeutische Wirksamkeit von faszialen Behandlungsansätzen aufgezeigt, um einen ausgewählten Überblick über die Bedeutung des faszialen Systems in der osteopathischen Befundung und Therapie zu verschaffen.
Abstract

Selected Fascial Aspects of Osteopathic Practice

Paolo Tozzi

Fascia is a connective tissue organised as a three-dimensional network that surrounds, supports, suspends, protects and connects muscular, skeletal and visceral components of the body. Studies suggest that fascia reorganises itself along the lines of tension imposed or expressed in the body, and in a way causes a repercussion of fascial restriction that is bodywide. This may potentially create stress on any structures enveloped by fascia itself, with consequent mechanical and physiological effects. From an Osteopathic perspective, fascial techniques aim to release such tensions, decrease pain and restore function. The proposed mechanism for fascial techniques is based on various studies that looked at the plastic, viscoelastic and piezoelectric properties of connective tissue. This article will explore some of the features described above, together with evidence supporting the therapeutic efficacy of fascial manipulation, offering a selected overview of the fascial component in Osteopathic assessment and treatment.
Quellen:


Anderson RE, Seniscal CA 2006 A comparison of selected osteopathic treatment and relaxation for tension-type headaches. Headache 46:1273-1280


Ayres AJ 1979 Sensory integration and learning disorders, Weston Psychological Services, LA


Barnes, JF 1990. Myofascial Release. The Search of Excellence. Rehabilitation Services,Paoli,PA


Benjamin M 2009 The fascia of the limbs and back-a review. J Anat 214(1): 1-18

Berry CC, Cacou C, Lee DA et al. 2003 Dermal fibroblasts respond to mechanical conditioning in a strain profile dependent manner. Biorheology 40 (1-3):337-345

Blanquet M, Domingo T, Ortiz JC et al. 2010 Ultrasound study of thoracolumbar fascia and surrounding tissues in chronic low back pain before and after spinal manipulative therapy. In: 7th Interdisciplinary world congress on low back and pelvic pain, Nov 9-12, LA

Blomberg S 1993 A pragmatic approach to low-back pain including manual therapy and steroid injections: a multicentre study in primary health care [dissertation]. Uppsala, Sweden: Faculty of Medicine, Acta Universitatis Upsaliensis

Bockenhauer SE, Julliard KN, Sing Lo K et al. 2002 Original contribution: Quantifiable effect of osteopathic manipulative techniques on patients with chronic asthma. J Am Osteopath Assoc 102(7): 371-375

Boesler D; Warner M; Alpers A et al. 1993 Efficacy of high-velocity low-amplitude manipulative technique in subjects with low-back pain during menstrual cramping, J Am Osteopath Assoc, Feb 93: 203


Busek P, Kemlink D 2005 The influence of the respiratory cycle on the EEG, Physiol Res 54:327-33


Chen YH, Wang SF 2010 Effect of the thoracolumbar fascia release on the transverses abdominis muscle contractibility. In: 7th Interdisciplinary world congress on low back and pelvic pain, Nov 9-12, LA

Chila A 2010 Foundations of Osteopathic Medicine, 3rd Ed. Lippincott Williams & Wilkins


Comeaux Z 2002 Robert Fulford DO and the philosopher physician, Eastland press, Seattle


Courtney R, 2009 The functions of breathing and its dysfunctions and their relationship to breathing therapy, IJOM, Sept 12, 3


Cummings J, Howell J 1990 The role of respiration in the tension production of myofascial tissues. JAOA 90(9): 842

D'Ambrogio K, Roth G 1997 Positional release therapy: assessment and treatment of musculoskeletal dysfunction. Mosby, St Louis


DiGiovanna EL, Schiowitz S, Dowling DJ eds. 2004 An osteopathic approach to diagnosis and treatment. 3rd ed. Lippincott Williams & Wilkins, Philadelphia


Fratzl P 2008 Collagen structure and mechanics. P. Fratzl Ed, Potsdam, Germany


Greenland S 1987 Quantitative methods in the review of epidemiologic literature, Epidemiol Rev 9,1 –30

Greenman P 1989 Principles of manual medicine. Williams and Wilkins, Baltimore, MD


Hazzard, C 1905 The practice and applied therapeutics of osteopathy, (3rd Ed.). Kirksville, MO: Journal Printing Company


Hodge L, Bearden M, King HH et al. 2007 Abdominal lymphatic pump treatment increases leukocyte count and flux in thoracic duct lymph. Lymphatic Research and Biology 5:127-133


Hoheisel U, Taguchi T, Treede RD et al. 2011 Nociceptive input from the rat thoracolumbar fascia to lumbar dorsal horn neurones. Eur J Pain. Feb 15


Hukins DW, Aspden RM, Hickey DS 1990 Thoracolumbar fascia can increase the efficiency of the erector spinae muscles. Clin. Biomech 5:30-34


Jones LH 1981 Strain and counterstrain. Colorado: AAO


Kuchera ML 2007 Applying Osteopathic Principles to formulate treatment for patients with chronic pain JAOA Vol107, No.6, Nov28-38

Kuchera ML, Kuchera WA 1994a Osteopathic Considerations in Systemic Dysfunction. 2nd ed. Columbus, Ohio, Greyden Press

Kuchera WA, Kuchera ML. 1994b Osteopathic Principles in Practice. 2nd ed. Columbus, Ohio: Greyden Press 463 -512


Lederman E 1990 Harmonic Technique, Churchill Livingstone


Lee PR 2006 Still’s concept of connective tissue: lost in “translation”? JAOA, Vol 106, No 4 April 176-177


- Lum L 1987 Hyperventilation syndromes in medicine and psychiatry. Journal of the Royal Society of Medicine 229-231


Manheim C J 2001 The Myofascial Release Manual. 3rd Ed, Slack Incorporated, New Jersey, USA

Mannino JR 1979 The application of neurologic reflexes to the treatment of hypertension. JAOA 79:225-230


McConnell CP 1900 The practice of Osteopathy, 2nd Ed. The Hammond Press


Mense S 1983 Basic neurobiologic mechanisms of pain and analgesia. Am J Med 75:4-14

Mesina J, Hampton D, Evans R et al. 1998 Transient basophilia following the application of lymphatic pump techniques: a pilot study. JAOA Vol 98, Issue 2, 91-91


Mohanty MJ, Li X 2002 Stretch-induced Ca(2+) release via an IP(3)-insensitive Ca(2+) channel Am J Physiol Cell Physiol 283(2):C456-C462


Patterson MM 2002 Neural mechanisms of the strain-counterstrain technique. L’Osteopathie, Winter 8:5-9


Rivers WE; Treffer KD; Glaros AG et al. 2008 Short-term hematologic and hemodynamic effects of osteopathic lymphatic techniques: a pilot crossover trial. JAOA Nov 108: 646 – 651


Saggio G, Docimo S, Pilc J et al. 2011 Impact of osteopathic manipulative treatment on secretory immunoglobulin A levels in a stressed population. JAOA Vol 111,No 3, March 143-147


Schwartz H 1986 The use of counterstrain in an acutely ill in-hospital population. JAOA 86(7): 433-442


Sernay RA 1975 Concepts problems and solutions in general physical, W.B.Saunders Company, Philadelphia


Snyder G 1956 Fascia-applied anatomy and physiology. In: Academy of Applied Osteopathy Yearbook


Staubesand J, Li Y 1996 Zum Feinbau der fascia cruris mit besonderer Berücksichtigung epi-und intrafaszialer nerven. Manuelle Medizin 34: 196-200
Staubesand J, Li Y 1997 Begriff and Substrat der Faziensklerose bei chronisch-venoser Insuffizienz. Phlebologie 26: 72-79


Stiles E 1976 Osteopathic manipulation in a hospital environment. JAOA 76: 243-258

Still AT 1902 The Philosophy and Mechanical Principles of Osteopathy. Kansas City, Mo: Hudson-Kimberly Publication Co

Stilwell DL 1956 The nerve supply of the vertebral column and its associated structures in the monkey. Anat Rec 125:139-169

Stilwell DL 1957 Regional variations in the innervations of deep fasciae and aponeuroses. Anat Rec 1957; 127:635-653

Sucher BM 1993 Myofascial manipulative release of carpal tunnel syndrome: documentation with magnetic resonance imaging. JAOA 93, 1273-1278

Sutherland WG 1949 Osteopathic Technique of W.G.Sutherland. Yearbook of Academy of Applied Osteopathy


Swartz MA, Tschumperlin DJ, Kamm RD et al. 2001 Mechanical stress is communicated between different cell types to elicit matrix remodeling. Proc Natl Acad Sci USA. May 22;98(11):6180-5. Epub 2001 May 15


Tozzi P, Bongiorno D, Vitturini C 2011b Low back pain and kidney mobility: local osteopathic fascial manipulation decreases pain perception and improves renal mobility, J Bodyw Mov Ther, article under revision


Van Buskirk RL 1990 Nociceptive reflexes and the somatic dysfunction: a model. JAOA 90:792-794, 797-809


Vleeming A, Pool-Goudzwaard AL, Stoeckart R et al. 1995 The posterior layer of the thoracolumbar fascia: its function in load transfer from spine to legs. Spine 20:753-758


Ward RC 2003 Fondamenti di medicina osteopatica, Casa Editrice Ambrosiana, Pavia, Italia


Wells PE 1985 Manipulative procedure. The motor system in neurobiology, Biomedical Press, Oxford


Xu WX, Li Y, Wu LR et al. 2000 Effects of different kinds of stretch on voltage-dependent calcium current in atrial circular smooth muscle cells of the guinea-pig. Sheng Li Xue Bao 52(1):69-74


