

Assessment of AtlasBalans whiplash treatment using mfBIA - A case report

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BACKGROUND A whiplash is a crippling condition in which myo-fascia is believed to play a key role [1]. Typically it is associated with a rapid deceleration of the head and neck e.g. car crash, cycle accident etc. Most studies have found that the muscles affected in these individuals, include the sternocleidomastoid and trapezius [1]. Massage forms of treatment appear to provide relief, both in terms of pain and improved function [2, 3].

METHODS AtlasBalans, a new form of mechanical massage (AtlasBalans, Stockholm, SE) was used to treat a whiplash patient: female, aged 53 years, height 165 cm, weight 70 kg (BMI 26). This patient suffered a fall from a horse in 2011 (3 years prior). Treatment was applied directly to the myo-fascial structures for a period of 30 minutes after the aforementioned myo-fascial regions had first been measured using a multi-frequency BioImpedance Analysis unit (SFB7, Impedimed, AUS). Following treatment, these myo-fascial regions were re-measured after an interval of 1.5 hours.

RESULTS The sternocleidomastoid muscle exhibited a 2 times normal resting tension (assessed by centre frequency, fc) and was slightly more tense on the right *versus* left hand side. The trapezius muscle exhibited a slightly lower 1.5 times normal resting tension (fc) and was in balance right *versus* left. AtlasBalans treatment induced a 20% relaxation in the sternocleidomastoid and a 30% relaxation in the trapezius muscle.

CONCLUSION Our findings are in accordance with other observations that the sternocleidomastoid muscle is principally involved in head deceleration type injuries. We suggest that a high level of resting tension is not only measureable in these whiplash patients, but that it can be relieved with massage forms of treatment like AtlasBalans. The lower level of resting tension in trapezius is most likely associated with the changes in the sternocleidomastoid muscle through compensatory and stabilizing muscle tension.

REFERENCES

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