

6th International Conference & Exhibition on

Physiotherapy & Physical Rehabilitation

August 13-14, 2018 | London, UK

INDIBA® activ radiofrequency treatment at 448 kHz and INDIBA® Fascia soft-tissue treatment procedures can induce significant thermal skin adaptations that remains for a prolonged period

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Background: Radiofrequency treatment is a rapidly growing in popularity procedure in musculoskeletal rehabilitation due to its effectiveness and efficiency in accelerating tissue healing while remaining noninvasive. The most commonly used and researched are the INDIBA activ technology that operates at 448 kilohertz. INDIBA® activ radio frequency therapy can be applied either with no significant pressure on the skin but also in the form of soft tissue mobilization technique with specific IASTM electrodes utilizing INDIBA® Fascia treatment. This study aimed to examine the thermal skin responses to 448 kilohertz radio frequency based therapy applied either in the form of standard application INDIBA® activ or the form of combined soft tissue treatment INDIBA® Fascia treatment.

Methods: Forty college students from the Technological Educational Institute of Western Greece were randomly divided into four groups and received a single, 10 minute hyper thermic (maximum amount of thermal intensity that can be handled) treatment of their hamstrings in the form of a standard INDIBA® activ application -IA group b) INDIBA® Fascia soft tissue mobilization application - IF group, c) INDIBA® activ Placebo - IAP group and d) INDIBA® Fascia placebo application -IFP group. Placebo groups received same treatment applications but with no radio frequency passing through the electrodes. Local skin temperature was measured before, immediately, post treatment and up to the point was returned to the baseline value.

Results: Statistically significant differences ($f=62.701$, $p=0.00$) in skin temperatures adaptations were found for the groups receiving INDIBA® activ and INDIBA® Fascia treatment compared with those that received placebo treatment in figure 1. Furthermore, there was a statistically significant difference ($p=0.00$) between the thermal response patterns produced by the two treatment procedures as in the IA group the temperature was maintained above the baseline levels for 58 minutes while in the group treated with the IF procedures for 130 minutes.

Conclusions: This study confirms that INDIBA® activ radio frequency treatment at 448 kilohertz can induce and sustain significant thermal skin adaptations. These adaptations were impressive and lasted for a prolonged period over 2 hours. When the application of radio frequency therapy (448 kilohertz) was done through soft-tissue mobilization procedure INDIBA® Fascia treatment. This increase and long-term maintenance of elevated skin temperature are of critical importance in musculoskeletal rehabilitation as rises in skin temperature are connected with increased blood circulation and metabolism of underlying tissues.

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