



REVIEW ARTICLE

A Patent Review On Therapeutic Ultrasound And Instrument Assisted Soft Tissue Mobilisation (IASTM).

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Abstract

This invention relates to Therapeutic Ultrasound and Instrument Assisted Soft Tissue Mobilisation (IASTM) and its properties to reduce pain, break soft tissue adhesions and scar mobilisation. Therapeutic ultrasound and IASTM both are used to reduce pain, break soft tissue adhesions and scar mobilisation either due to its healing properties, tissue heating or by tissue remodelling. This innovation has deep heating and healing properties of ultrasound combined with fascia release, tendon release, trigger point release and scar mobilisation.

Keywords:- IASTM, Therapeutic Ultrasound, USBM, Soft Tissue Mobilisation, myofascial release.

Field of the invention

This invention relates to the Therapeutic Ultrasound and Instrument Assisted Soft Tissue Mobilisation (IASTM) and its properties to reduce pain, break soft tissue adhesions and scar mobilisation.

Background of the invention

Therapeutic ultrasound and IASTM both are used to reduce pain, break soft tissue adhesions and scar mobilisation either due to its healing properties, tissue heating or by tissue remodelling. Through this invention, Ultrasound Based Mobilisation (USBM), focuses on combining both of them thus inducing tissue heating and IASTM together while reaching small tendons, bigger muscles and triggers points.

Object of the invention

The main objective of the invention, USBM, is to combine the effects of therapeutic ultrasound and IASTM to facilitate effects of deep heating, healing along with tissue remodelling. It reach even the smallest tendon to bigger muscles and focus on trigger points as well due to its neoteric design.

Design and details of the invention

Conventional ultrasound has deep heating and healing properties which reduces pain and spasm but its large head cannot localise the treatment over very small areas such as trigger points, finger tendon, etc. IASTM works by breaking down myofascial adhesions but its efficacy is minimal at muscular level.

In this innovation, 1 MHz ultrasound is combined with IASTM tool which facilitates deep heating and healing properties along with breaking down of myofascial adhesions and scar mobilisation. 1MHz ultrasound can penetrate up to 5 cm to produce its effects on the muscles.

The diameter of the ultrasound head is modified according to the need of the instrument so as to reach areas as small as a finger's tendon and as large as the calf muscles. There is a pointed end to localise and release trigger points. It can be localised over small tendons or trigger points as well as on the large surface areas as it has separate edges for either of them.

Deep heating and healing properties of ultrasound are induced through the edge of the instrument to reduce post treatment soreness and irritation. As deep heating property of ultrasound is combined with IASTM, time consumed in application of two individual therapies is minimised to a single therapy making it more effective and efficient. 1 MHz frequency used in ultrasound when incorporated with IASTM will give more effective results than conventional ultrasound. It increases the efficiency of the therapy by reducing time of two individual therapies.

Advantages

This innovation has deep heating and healing properties of ultrasound combined with fascia release, tendon release, trigger point release and scar mobilisation.

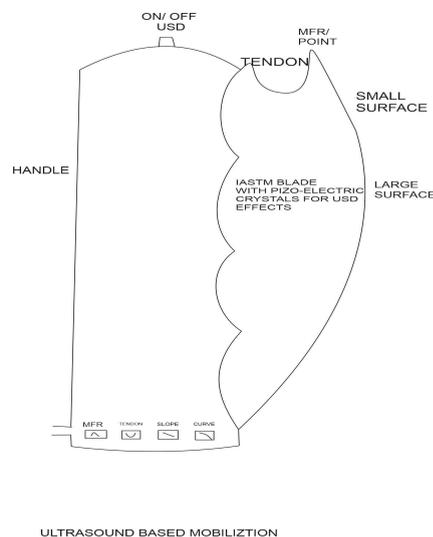


Fig.1 - Represents structural details of the tool.



Fig.2 - Represents full view of the tool.

Conflict of interest – The authors declare no conflict of interest.

Ethics statement/confirmation of patient permission - Yes patency is approved by IP India with patent number - 379487 and IP Australia - 2021103109. Patient permission not required as this invention of instrument tool.

Sources of funding - Yes.

Ethical Approval – Yes.