

Comparison of the effectiveness of instrument-assisted soft tissue mobilization technique, Ultrasound therapy, or Deep friction massage on fast recovery and accelerating tissue healing in groin strain.

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Background: Instrument-assisted soft tissue mobilization technique (IASTM), Ultrasound therapy (US), and Deep Friction Massage (DFM) offered to manage adductor muscles for facilitating the fast recovery and promoting tissue healing. Few studies are available about the effects of IASTM, how far the effectiveness of ultrasound on the functional recovery is still under debate. Deep friction massage is known to be used to promote muscle fiber arrangement. **Methods:** 46 participants divided randomly into four groups; (I) control group, no agent used (n=10), (II) instrument-assisted soft tissue mobilization technique (n=12). (III) Ultrasound therapy (n=12) (IV) Deep friction massage (n=12). 15 sessions delivered to all participants over five weeks, day after day. **Analysis:** Numerical Pain Scale, Inclinometer, dynamometer, and ultrasound imaging used to measure pain severity, pain-free abduction passive range of motion, maximum pain-free adductor contraction, and tissue healing respectively. Baseline measurements were done before any intervention, and measures after the 1st week, 3rd week, and at the end of the therapeutic intervention. Repeated measures MANOVA used to compare within and between groups. **Result:** IASTM and US show a significant effect on Pain, recovery (ROM {P<0.031, P <0.018} – Strength {P <0.026, P <0.041}), and proper healing (P <0.049, P <0.021). Initially, ultrasound was effective in reducing pain intensity and accelerating healing but, IASTM is more effective in gaining recovery. DFM only has tissue healing effect (P <0.039). **Conclusion:** IASTM is the most effective method regarding fast recovery and proper tissue healing in groin strain unless the pain is not a big issue.

Biography

Dr. Hesham has completed his Ph.D. at Cairo University, Egypt and studied DPT at Arcadia University, United States. He is a consultant of musculoskeletal rehabilitation of orthopedic surgeries department. He is an assistant professor at the college of applied medical science, Jouf Uni., KSA. He was awarded special recognition from APTA as his role in the development of shoulder rehabilitation.

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Category: (Oral presentation/ Poster presentation).