Editorial Note

Ultrasonography is a Highly Valuable Technology in Clinical Practice

Technological advancements have significantly impacted healthcare services, including the field of physical medicine and rehabilitation. One prominent emerging technology is ultrasound, which has evolved beyond its traditional role as a diagnostic tool to facilitate therapeutic interventions, such as muscle training therapies and injections targeting neural or musculoskeletal structures. Exercise therapies aimed at isolating specific muscle contractions are crucial, and ultrasound imaging aids in accurately targeting the desired muscles.

For a medical rehabilitation specialist, proficiency in ultrasound usage is essential for daily practice. Given its integral association with "physical" aspects, physical medicine and rehabilitation require an understanding of movements, such as concentric and eccentric actions involving the origins and insertions of muscles. Additionally, ultrasound provides detailed visualizations of muscle fascia in various conditions—whether normal or edematous—fibrotic changes in muscles due to prolonged immobility, atrophy in sarcopenia, and muscles that have been improperly utilized. It also offers insight into spastic muscle fibers, entrapped nerves, edematous nerves, linear fractures, and other features not visible on X-Ray, due to its ability to capture dynamic images of the targeted structures. Managing spasticity through chemoneurolysis injections, such as botulinum toxin, phenol, alcohol, or interventions like cryotherapy or lidocaine nerve blocks, is greatly enhanced by advancements in ultrasound technology.

Thus, it becomes imperative for physicians specializing in musculoskeletal, neuromuscular, sports medicine, or interventional pain management to acquire and master ultrasound skills for daily clinical practice. The 18th World Congress of the International Society of Physical and Rehabilitation Medicine (ISPRM), held in Sydney in early June this year, collectively recognized that ultrasonography (USG) is emerging as a modern replacement for the traditional stethoscope used during general medical practice. Numerous panels at this year's ISPRM conference addressed the applications of ultrasonography, spanning from diagnostic use to therapeutic guidance.

For medical professionals, it is imperative to stay updated and adaptable, as change remains a constant in the field. Throughout the six days of the ISPRM event this year, discussions about USG were omnipresent. The first session in the first day of the ISPRM covered 4 topics (USPRM basic and advance, spasticity with USG, cryoneurolysis using usg), day 2 : application of USG in swallowing

by Tyng Guey Wang, USG hands on course, day 3 : shoulder and USG, USG guide IPM, USG of the knee, free paper USG assessment of muscle alteration in post stroke UL spasticity, an expert debate about spasticity and again USG as device for diagnostic and guiding, the three Cs an introduction to a simple new framework for spasticity, foot and ankle USG, USG guided phenol neurolysis, day 4 : USG in nerve entrapment, SHS and USG, guided, foot & ankle USG, usg ped in spasticity, day 5 USG in peripheral nerve entrapment, pain management, day 6 : USG guided common and uncommon nerve block with alcohol, WS optimizing using USG for assessment, treatment of the spastic.

In summary, ultrasonography is a highly valuable technology in diagnostics, therapeutic interventions device, and research.

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