Chronic hand and finger pain and stiffness signs and symptoms most often occur as components of a spectrum of conditions which have been discussed in other vignettes presented under the pain conditions tab at www.willowcurve.com. These include overuse syndromes (repetitive motion injuries), and various forms of arthritis, such as osteoarthritis, rheumatoid arthritis, immunologic conditions which have arthritic components, such as lupus and psoriasis, and very common syndromes such as carpal tunnel and tennis elbow. Most researchers would consider Osteoarthritis to be the most prominent cause of arthritic hand pain and stiffness. Inflammation is a prominent finding in most hand and finger pain conditions. Additionally, these symptoms may also result from trauma.

Regarding inflammation and favorable non-medicinal treatment, the studies of Bjordal et al. (2006b) critically looked whether LLLT could be an effective therapeutic modality. They conducted a review of animal and in vitro found strong evidence that LLLT modulates biochemical inflammatory markers and produces local anti-inflammatory effects in cells and soft tissue. Specifically, the review found strong evidence from 18 out of 19 studies that red and infrared wavelengths of LLLT can act locally and rapidly to modulate the inflammatory processes in injured tissue. These anti-inflammatory effects include changes in biochemical markers, altered distribution of inflammatory cells, and reduced formation of edema, hemorrhage, and necrosis. The reduced formation of edema, defined as “swelling caused by fluid” in the body’s tissues.

Biorda et. al., Morimoto et. al, as well as many other authors provided clear evidence that LLLT produces significant anti-inflammatory effects and conclude that LLLT can be used to reduce inflammatory musculoskeletal pain. They also conclude that LLLT has the advantage of rapid action and few side effects. Morimoto et. al. provided additional confirmation that LLLT is effective in sports injuries.

The studies by Biorda et. al. and Stergioulas et al, Morimoto et. al, Bjordal et. al as sell as many other researchers, clearly show hand and finger pain and stiffness which most frequently harbor inflammation, favorably responds to LLLT. Along with numerous other studies this provides competent and reliable scientific evidence that LLLT has a beneficial effect on hand and finger pain and stiffness.

References


This was a multicenter study involving institutions listed below:

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