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Effect of Laser Therapy in De Quervain's Tenosynovitis: A Review

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ABSTRACT

De Quervain's tenosynovitis (DQT) is a stenosing overuse disorder that affects the abductor pollicislongus and extensor pollicisbrevis tendons in the synovial sheath of the wrist's first extensor compartment. Treatment options for DQT are expanding and include immobilisation, acupuncture, laser therapy, extracorporeal shockwave therapy, hyaluronic acid injections, anti-inflammatory drugs and ultrasonographic therapy. The main objective of this systematic review is to identify the significant effects of laser therapy on patients with DQT. Databases and search engines such as Cochrane, PubMed, & Google Scholar were searched for articles published between 2000 and 2025, emphasising pilot studies and randomised clinical and controlled studies in English. A total of 1765 papers that were first discovered were qualified for full-text screening, and 465 articles were eliminated because they contained duplicates. A total of 1300 abstracts and titles were assessed, out of those 1290 were removed due to other treatment than laser therapy and seven of those were chosen for in-depth review.The participants from 18 to 65 years of age and both genders were included in this review.The patients with hand deformity and rheumatic disease were excluded from the study. The study found that high-intensity laser therapy and low-level laser therapy have significantly reduced pain,and inflammation and improved range of motion. When compared to other modalities and exercises, laser therapy has proven to be the most effective and gives superior results in enhancing tissue healing.In conclusion, laser therapy can be used alone or in conjunction with other treatments to treat DQT. It enhances functioning and decreases pain. Additional high-quality research with a substantial number of samples is still needed to validate these findings and establish a common treatment regimen.

Keywords: Inflammation, Pain, Range of motion