



Comparison of Duloxetine with Nonsteroidal Anti-Inflammatory Drugs for Subacromial Impingement Syndrome

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DESCRIPTION

One of the most prevalent shoulder conditions in adults is known as Subacromial Impingement Syndrome (SIS), which is characterized by shoulder pain and a limitation in Range of Motion (ROM), particularly during overhead movements. Although SIS is typically self-limiting, the cuff lesions and problems it causes frequently worsen over time and cause patients to become weaker and have a lower Quality of Life (QoL). Numerous conservative treatment modalities, such as systemic Nonsteroidal Anti-Inflammatory Drugs (NSAIDs), physical therapy, activity modification, electromagnetic radiation, therapeutic exercises, and corticosteroid injections, have been shown to be effective in reducing sub acromial inflammation and shoulder pain and improving the shoulder functional status in SIS.

There is general agreement that the initial line of treatment for stage I or II SIS is NSAIDs. A typical medication used to treat depression and anxiety disorders is duloxetine, a selective Serotonin Norepinephrine Reuptake Inhibitor (SNRI). Duloxetine has also been demonstrated in numerous studies to be effective in treating chronic musculoskeletal pain caused by osteoarthritis, fibromyalgia, and other conditions. Duloxetine may also help with the quality of rehabilitation and reduce acute postoperative pain following spine and knee replacement surgeries, according to some research.

Patients with stage I or stage II SIS appear to benefit from treatment with duloxetine and NSAIDs. Previous results of the study showed that compared to NSAIDs, duloxetine significantly reduced shoulder discomfort, enhanced shoulder ROM and functional status, and improved quality of life. Additionally, no

patient in the duloxetine group reported any adverse effects or symptom recurrence during the three-month follow-up period. Subacromialimpingement Syndrome (SIS) is characterized by shoulder pain and restriction in Range of Motion (ROM), which lead to debility and decrease Quality of Life (QoL). Duloxetine could provide persistent long-term pain relief in chronic musculoskeletal pain. Therefore, we aimed to investigate the efficacy of duloxetine in stage I or II SIS patients through comparing the Nonsteroidal Anti-Inflammatory Drugs (NSAIDs) treatment. One of the most prevalent shoulder conditions in adults is SIS. Cuff lesions and consequences frequently worsen over time, which makes SIS patients more weak and reduces their quality of life. The oral NSAIDs appear to be more effective than placebo. Many conservative therapy approaches have been shown to be beneficial in SIS.

In vitro and *in vivo*, duloxetine is a powerful and selective SNRI in the central nervous system. In addition, duloxetine has received approval for the treatment of neuropathic pain as well as chronic musculoskeletal pain in the US and other nations. Duloxetine's capacity to improve serotonin and norepinephrine neurotransmission in descending inhibitory pain pathways in the central nervous system may help to explain how it has analgesic effects. Duloxetine is anticipated to be useful in treating chronic pain in Chinese individuals given that their pharmacokinetic profiles are similar to those of Caucasians. Few studies on duloxetine in SIS patients exist, as far as we know. In conclusion, NSAIDs and duloxetine can both help individuals with stage I or stage II SIS recover. Furthermore, when used to treat SIS, duloxetine produced better outcomes than NSAIDs. The research findings suggested that duloxetine therapy could be used as a brand-new, secure solution for SIS.

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