E-Poster

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Case Report: Rapid Recovery and Return to Aviation in a Pilot With Severe De Quervain's Tenosynovitis Following a Multidisciplinary Rehabilitation Approach

Topic: Pain

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BACKGROUND

De Quervain's tenosynovitis is an inflammatory condition affecting the tendons of the abductor pollicis longus and extensor pollicis brevis within the first dorsal compartment of the wrist. While commonly associated with repetitive manual activities and overuse injuries, it is also observed in pilots, who experience unique ergonomic and environmental stressors.

CASE DESCRIPTION

A 28-year-old pilot presented to the musculoskeletal rehabilitation clinic with right thumb pain. MRI and clinical examination confirmed De Quervain's tenosynovitis. Due to persistent symptoms, he was temporarily grounded from aviation.

Initial conservative treatment by the family doctor and aviation physician failed to yield improvement. An orthopedic specialist recommended surgery, but the patient was hesitant.

At our clinic, a multidisciplinary team, including a physiatrist, occupational therapist, and hand therapist, assessed him. An ultrasound guided corticosteroid injection was administered to reduce inflammation and pain, followed by an intensive hand and occupational therapy program. Within two weeks, the patient experienced complete pain resolution and resumed intensive therapy. This facilitated his safe return to aviation under the supervision of his aviation medicine physician

DISCUSSION

Recognizing the occupational risks and biomechanical demands of the cockpit is essential for early diagnosis and management. Preventative measures, including ergonomic adjustments, proper hand positioning, and periodic breaks, may help reduce the risk. Initial management typically involves conservative therapies such as rest, nonsteroidal anti-inflammatory drugs (NSAIDs), splinting, and targeted physical therapy.

For refractory cases, optimal outcomes are achieved through a multidisciplinary approach involving rehabilitation physicians, occupational therapists, and hand therapists. Coordinated care ensures effective management of inflammation using corticosteroid injections, followed by structured rehabilitation to restore function and minimize recurrence.

CONCLUSION

A structured multidisciplinary approach, integrating corticosteroid injection with targeted hand, ergonomic, and occupational therapy, provides an effective strategy for managing De Quervain's tenosynovitis. Addressing both inflammation and rehabilitation optimizes pain relief, functional recovery, and safe return to work.

Statement of Disclosures

None

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