

Management of Tenosynovitis -- A Conservative Regimen

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Tenosynovitis is an inflammation of a tendon sheath. It may be a by-product of direct trauma, or it may be a result of excessive use of a tendon and its synovial sheath. In either circumstance, the synovial surface becomes desiccated and covered with fibrin deposits. As the tendon moves within its dry sheath, there is clinically audible crepitation produced which may also be palpable. This effect results in the irritation of the tendon, especially at anatomical sites where it moves over a bony prominence. This irritation results in an inflammatory response. The inflammation is usually most pronounced at a musculotendinous junction following straining of the muscle.

Should the tendon continue to be moved within the sheath as a result of use, effusion will result (edema) in which case visual swelling may be seen along the course of the tendon. With the development of this effusion, crepitation ceases. If this reaction becomes chronic, granulation tissue forms within the tendon sheath with the development of firm adhesions. This chronicity results in pain and interference with freedom of motion, if not resolved.

Clinically, in addition to audible and palpable crepitation, pain may be present over the area of the muscle and tendon. This pain is commonly accentuated by active or passive motion of the tendon which is tender to palpation.

Conservative treatment includes imperative rest of the involved part with avoidance of activities which result in pain. If necessary, the part may be splinted temporarily until the acute symptoms subside.

In mild cases, gentle exercises are advisable to prevent adhesion formation. Early in this clinical process, near or far, infrared therapy may be applied for 30 minutes b.i.d. If these measures are not clinically resolving, light splints may be applied. Removable splints used for fixing the tendon will provide for removal in order to allow for treatment of the part.

Pulsed ultrasonic energy is recommended in conjunction with other modalities and has been shown to be very effective.

Local heating by whirlpool or paraffin bath may be used for lysis of the fibrinous exudate following the inflammation in the event that the fibrin is not too dense.

If used, massage must be very gentle. Low grade infection and gout should be ruled out diagnostically before excluding these clinicopathological entities from the treatment process.

References

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