Dynamic Chiropractic

Corticosteroids and Soft Tissue

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"There is no specific data to indicate that anti-inflammatory medications have a biologic healing stimulus."[1] Pain relief is not necessarily related to the promotion of healing. Corticosteroids are being used in increasing amount and Gray and Gottlieb state[2] that "limited controlled studies and extensive clinical experience support the efficacy of this therapeutic modality in the palliation of rheumatoid arthritis and other inflammatory musculoskeletal conditions." Interesting, how corticosteroids are accepted by "extensive clinical experience" and 95 years of chiropractic clinical experience is rejected.

Johnson[3] feels that steroid injection at the wrist should be used only in the most select instances at the distal attachments of tendon to bone. Steroid injection into the "most tender spot" may produce rupture of the tendon or its insertion. Although tendinitis is relieved by injection of corticosteroids, the scar tissue formation is not reduced. Friction massage which reduces the abnormal scar tissue represents a healing factor. With tendinitis there is microtearing, and in an athlete who receives the injection and experiences relief, there is a danger of creating a complete rupture with continued activity. This has happened especially in Achilles and patellar tendinitis.

Local injection of corticosteroids not only affect the local area but also has a systemic effect. After a "local" injection there is evidence of a systemic effect by diminished joint swelling distant from the injected site, transient eosinopenia and depression of plasma cortisol levels, reflecting hypothalamic-pituitary-adrenal axis suppression.[4]

Some of the side effects of corticosteroids are[5,6,7] avascular necrosis especially of the hip, due to an adverse effect of lipid metabolism causing fatty emboli; tendon rupture due to the inhibition of the formation of healing adhesions resulting in weakening; alteration of biomechanical ligamentous properties by inhibiting the formation of granulation and connective tissue; arthropathy due to softening of the subchondral bone, delay of chondroitin sulfate synthesis, and inhibition of the formation of ground substance in mesenchymal tissue (articular cartilage); vertebral osteoporosis; infectious arthritis and bursitis; and depressed mental status due to decreased corticoadrenal function. Some of the articular damage has been attributed to steroid analgesia resulting in microtrauma due to painless overuse.

John Lowe, D.C., one of MPI's excellent instructors who teaches Myofascial Pain Syndromes ("MF") has stated in his audio tapes[8] on myofascial therapy how patients on prolonged prednisone medication suffer with a hypermyofascial atonia. The cortisone derivative causes a deterioration of the fascia creating a soft and boggy feeling on palpation.

Research is needed to determine the effect of manipulation on recently steroid-treated joints. It is possible that excessive exercise and manipulation of joints may be detrimental to soft tissue recently treated with corticosteroids.

References

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MARCH 1990