

DIGITAL TENDINOPATHIE

Fabbriciani C, Sbernardori MC

Istituto di Clinica Ortopedica, Università degli Studi di Sassari, Italy

The term “tendinopathies” (1) could identify the clinical description of tendon injuries in sport and among these the overused tendons pathologies and spontaneous tears of tendons.

The first are due to repetitive, low-energy traumas, that caused microscopic damages of the tendon tissue; the tendon could be incapable of tolerating further tension forces and this could bring to the tearing of intermolecular links among the collagen fibres. All this might provoke a weakening of the helicoidal pattern with focal degenerations (tendinosis) with or without inflammatory processes causing oedema and pain; so sometimes the tendinitis and the tenosinovitis could be the early clinical aspects of the structural alterations in tendons. Therefore a thin line separates the right intensity of the physical exercise (that allows a progressive muscular and tendon adaptation) and the intensity that causes the pathological modifications of the tendon. The De Quervain disease regards the extensor tendons locating into the first dorsal compartment; tennis-players, golfers and oarsmen are often been bilaterally affected. Clinically they show swelling and pain at the radial styloid with a proximal and distal irradiation. Rest, FANS with use of a static splint often resolve the simptomatology; sometimes it is necessary a corticosteroid injection or a surgical tenolysis.

The intersection syndrome affects weight lifters, oarsmen and canoeists at the second extensor compartment. The use of the splint associated with rest and FANS with or without corticosteroid injection resolves the simptomatology. The tenolysis is reserved to the persistent cases and it consists of opening the fascia overlying the tendons with the removal of hypertrophic synovial membrane.

The tenosinovitis of the other extensor tendons are less frequent in sport. The tenosinovitis of the flexor digital tendons are generally located in the carpal tunnel or in the A1 pulley. It is common in volleyball-players, in weightlifters and in gymnasts. Immobilization with or without early corticosteroid infiltration generally resolves the simptomatology; the surgical treatment consists in the longitudinal opening of the A1 pulley. Sometimes the inflammatory processes might cause focal areas of tissue degeneration even if now most of the tendinosis are considered not directly correlated with inflammatory process (1).

In spontaneous tears of the tendons there could be numerous hystological variations; recently has been underlined the role of the apoptosis during the tendinosis phenomena (2). The spontaneous tears of tendons happen during athletic movements which normally wouldn't cause damage and they can happen in tendons which previously had shown no pathology even if under hystological exam they exhibit various outlines of tendinosis. The deep flexor tendons are the more affected; often at the bone-insertion of the distal phalanx (the lesion of the annular finger in the baseball-players is typical); the surgical treatment depends on the grade of the tendons retraction. In volleyball, in football and in baseball the subcutaneous tears of the extensor tendons are frequent; the “mallet finger” or “baseball finger” is due to the subcutaneous tear of the extensor tendon at the their insertion at the distal phalanx.

References

1. Maffulli N et Al. Types and epidemiology of tendinopathy. Clin Sports Med 22, 675-692, 2003.
 2. Yuan J et Al. Apoptosi in rotator cuff tendonopathy. J Orthop Res 20: 1372-9, 2002.
-