

# New Methods of Degenerative Tendinopathy treatment in Horse

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**Introduction:** The superficial digital flexor tendon (SDFT) is that the most ordinarily affected and therefore the incidence of reinjuries during this tendon is comparatively high (1, 2, 3, 4, 5). Tendinitis of the (SDFT) is additionally mentioned as “bowed tendon”, develops following excessive strain on the (SDFT) which causing tearing of the tendon fibers leading to a warm, painful swelling associated with it. Tendinitis is a potentially career limiting injury, which is one of the most frustrating athletic injuries involving the lower leg. If there’s complete laceration or rupture of the (SDFT) there’s reduced support for the fetlock. Damage to the (SDFT) most commonly occurs in the mid-metacarpal region or tensile region of the tendon (9, 10, 11, 12). Normal strain measured in (SDFT) range from (3-8 %) at the walk, (7-10 %) at the trot and (12-16%) at the gallop, thus it becomes obvious that a horse’s tendon is operating at or near maximal capacity whilst at the gallop. Tendon structures when injured do not heal as well Diagnosis of SDF tendinitis is based primarily on history, physical examination [13]. Treatment in lower leg tendinitis with time casing from injury to successful competition suggested as just over a year. The aims of cold therapy (ice) for acute tendinitis are to decrease inflammation and swelling, minimize scar tissue formation, and promote restoration of normal tendon structure and function as soon as possible for 20 to 30 minutes, 3 to 4 times per day. Cold therapy is commonly used in treatment of inflammation and soft tissue injuries in the horses, and no matter what the method of application. The amount of exercise and duration of protocol before re-examination are based on the severity of tendon damage at initial examination. The repair and maturation phases of healing in a tendon last for six month or more. Recovery from such injury is prolonged, and recurrence frequent after affected horses returns to training or racing.

**Objective:** Give the clinical similarities in tendinopathy of energy-storing tendons, we hypothesized that a recently developed experimental model of equine tendon injury would display many of the characteristics of clinical tendinopathy and could therefore be of use for both species, thus providing comparative insight to the human condition and offering direct potential impact to equine medicine.

**Procedures:** In many studies, grey-scale Ultra-Sonography (US) and Color Doppler (CD) examination were performed in many horses with chronic tendon injuries and a control group of healthy and asymptomatic horses. In all symptomatic tendons, but not in any of the tendons within the control group, neovessels were seen within the area with structural tendon changes. The neovessels found within the horse ten-

dons looked almost like what has recently been presented in human Achilles tendons. These findings motivate evaluation of same treatment, a sclerosing injection that was demonstrated recently to give promising results in the treatment of chronic Achilles tendon injuries in humans.

**Results:** In studies seen that grey-scale ultrasonography shown that in all injured tendons there were irregular fiber and focal hypoechoic areas, the control tendons had not this diagnostic color. Doppler examination showed that in all injured tendons was neovascularization but the control tendons had not these diagnostic.

**Conclusion & Clinical Relevance:** All studies results provide evidence that at the present no single universal treatment method has emerged and, in most instances, clinical experience influences recommendations. It would appear that early aggressive anti-inflammatory treatment and combined treatment strategies, such as tendon stabbing for core lesions, and controlled exercise regimens, coupled with regular ultrasonographic examinations are the best most clinicians can offer.

## References

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**Biography:** Melika Abdollahi is a Doctorate student who is interested in knowing more useful ways to treat any diseases, she loves to practice medicine, especially surgery so she started researching since she was in her first year of university. She is member of Iran Veterinary Association and Iran Veterinary Surgery Association, the foundation of these new methods is based on studying many valid articles in all around the world for this treatment case.