

SUSPECT OF ACUTE PSOAS MYOSITIS AFTER LONG TRAINING EXERCISE: A CASE REPORT

Lazzaroni A, Maccalli P***

**Team Physician AC Lumezzane, "Sportlife" Medical Center, Brescia, Italy*

*** Sports Medicine Department, Brescia University, Brescia, Italy*

Introduction

Only few cases of psoas inflammatory affection are reported in literature and they are all referred to secondary localization from infective spondylitis, arthritis, either of pyogenic or tuberculous origin, acute immunogenetic process, tumor or hemorrhage. Nevertheless there is another unusual pathology: the acute psoitis.

Methods

We report the case of a 17-year-old soccer-player, who presented to the physical examination walking with crutches due to the limp, flexed and left rotated hip and antalgic left deviation of lumbo-sacral rachis with acute-onset left groin pain rose two days before. The pain increased during the night, with muscle in repose, keeping him to sleep or moving in the bed according with inflammatory hypothesis. He referred a high-intensity exercise during the day before the onset of the first symptoms: he did numerous series of hip flexions and extension with resistance, supine, following a therapeutic protocol of rehabilitation because of previous muscular damage at the right long abductor muscle.

The patient showed the typical signs of left psoas retraction (Thomas test positive), exacerbations of the pain in flexing left hip during active contraction with resistance and an irradiation of the pain to the lumbo-dorsal rachis. The movement of hip in extra-rotation was normal. There was no pain during contraction of abductor muscles and no pain on pubic symphysis. The abdomen was tractable and not aching and there was no-alteration of the alvus; a rise of body temperature was not documented.

The boy went under comparative ultrasound examination (Ultramark 9 System ALT-HDI echograph, CL 10-5 MHz probe) of muscles and blood sample was evaluated (haemachrome with formula, VES, PCR, GOT, GPT, CPK).

Results & discussion

Ultrasounds showed diffused hyperechogenicity of left psoas muscle with stuff of tertiary fibres without indication of limited muscular damage; not notable psoas bursa distension was present, not effusion of hip joint below as predictable in an inflammatory pathology. Ultrasonic findings were not suggestive for a definite pathology but strongly altered. The laboratory findings found a significant increase in the serum of indicators of muscle damage (CPK 17,841 U/L, GOT 425 U/L, GPT 84 U/L), but not a rise of inflammatory parameters (total leucocyte count $7.0 \times 10^3/L$, VES 4/ 1h, PCR 0.6 mg/dL). The patient was invited to respect the repose of a week, the stop of sport activity and he started an anti-inflammatory therapy (FANS). After 7 days from the first visit patient's conditions were completely resolved: the laboratory findings started to normalise (PCK 396 U/L, GOT 34 U/L, GPT 41 U/L) and the ultrasound imaging showed the recovery of left psoas healthy condition. No clinical alterations were presents.

In this case we found analogy with another common pathology: the DOMS (Delayed Onset Muscle Soreness). The anamnesis, the physical examination and the response to the therapy were suggestive for psoas local inflammation; the ultrasonic findings excluded torn muscle and would be demonstrative of inflammatory process, muscle contracture or strained muscle; the laboratory findings in acute would be correlated with local muscle damage (for the great level of PCK) but the little time (7 days) occurred to normalise them strengthened the inflammatory hypothesis.

Conclusions

Some authors are in agreement with the muscle fibre degeneration as mechanism of DOMS, others with inflammatory response in skeletal muscle following eccentric exercise. This study shows a combination of both hypothesis: probably the psoitis was due to ultrastructural alterations in skeletal muscle after eccentric exercise with superposition of local inflammatory mechanism.
