Physiotherapy Intervention in Urinary Incontinence in Powerlifting Athlete

Pereira C1, Castiglione M2, Etienne MA3, Guiselini S4

1. Physiotherapist, Master, Physiotherapy of Pelvic Floor - IMSCSP, Professor of the Centro Universitário Unilato
2. Physiotherapist, Master, Physiotherapy of Pelvic Floor - IMSCSP
3. Physiotherapist, PhD, Head of the Pelvic Floor Physiotherapy Department - IMSCSP
4. Physiotherapist, Specialist pelvic physiotherapy

Powerlifting is a sport whose technique is focused on resistance, power and explosive strength. It comprises the modalities of squats (Figure 1), regulatory supine (Figure 2), dead and total lift (Figure 3) and this sequence is regulated in competitions by the International Powerlifting Federation (IPF), where athletes get to raise three times their own weight at once. The categories are defined by gender, body weight and age, and its practice is allowed to male and female lifters above 14 years old. For the safety of the athlete an abdominal belt is used. It has the function of stabilizing the abdominal muscles while supporting the lumbar spine during lifting. This belt must be well adjusted, so that the abdominal muscles can support themselves during a heavy lifting. The excessive increase in intra-abdominal pressure overloads the pelvic organs, pushing them down. As a consequence, the muscles and ligaments of the pelvic floor, which make up the support and suspension systems of these organs, can be damaged. The excessive increase in intra-abdominal pressure, can result in changes in the function of urinary continence, resulting in stress urinary incontinence.

Graph 1 shows the scores of the ICIQ-SF before and after physical therapy.

Graph 2 shows the score of the AFA before and after physical therapy.

Graph 3 shows the Pad Test result in grams before and after physical therapy.

Objective: Physiotherapy intervention in stress urinary incontinence in Powerlifting athlete.

Method: The case study was conducted with a female Powerlifting athlete, aged 27 years old, in the period from August to October of 2009. Anamnese was made and the athlete was evaluated by the questionnaire of quality of life of stress urinary incontinence, condition-specific (ICIQ-SF), Functional Assessment of Pelvic Floor (AFA), Touch Pad and digital bi-adapted Test (conducted during training). Eleven physiotherapy sessions were conducted observing that from the 2nd to the 6th session, lasting 1 hour each, twice a week, it was applied vaginal electrostimulation directed without Powerlifting load; from the 7th to the 10th session, lasting 1 hour and 30 minutes each, once a week, electrostimulation was performed during Powerlifting training with diversified loads. The 1st and 12th sessions were reserved for evaluation and reevaluation of the ICIQ-SF, AFA and Pad Test. The parameters used for directed vaginal electrostimulation in the first two sessions were: frequency (F) 35Hz, pulse width (T) 500µs, intensity (I) according to the sensitivity of the athlete. From the third session (F) was changed to 50Hz and (T) to 700µs. The athlete was also instructed to perform perineal exercises at home.

Results:

• Caetano AS; Tavares MCGCF; Lopes MHB. Incontinência urinária e a prática de atividades físicas. Revista Brasileira de Medicina do Esporte; 2007; 13
• Groves B. Powerlifting – Levantamentos básico. 1ª edição brasileira; São Paulo: Manole; 2002

Conclusion: The physiotherapy intervention in urinary incontinence in Powerlifting athletes showed highly positive results.

Bibliographic References: