

The adverse effects of exercise

Nefrología 2009;29(4):365.

Dear Editor:

The publication of the article *Physiotherapy during haemodialysis: results from a force-resistance programme* by Eva Segura Orti, Vicente Rodilla-Alama and Juan Francisco Lisbon Parraga (Nefrología 2008;28(1): 67-72),¹ which demonstrated the need for and importance of physical exercise in chronic renal patients' routines, was very important. However, we felt the need to comment on a few points such as the adverse effects of exercise and programme adherence.

As recent studies have shown, patients with chronic renal failure are more susceptible to adverse events during exercise. For example, a patient could suffer ruptured tendons, fractures, muscle injuries and cardiovascular complications.^{2,3} Cheema et al.⁴ in 2005 demonstrated in their review that exercise can induce hypotension and

gastrointestinal haemorrhage, as well as fatigue, sweating and pain in the feet.

In our study, in a university hospital in southern Brazil, twelve patients who participated in an intradialytic physiotherapy programme had, at five months, an average adherence rate of 83.66%. The exercise was carried out approximately thirty minutes after beginning haemodialysis, using a programme similar to that used in the above-mentioned study. The main complaint reported during the exercise was cramp (n = 6), followed by pain (n = 3), hypotension (n = 2) and excessive fatigue (n = 1).

At present, we have no knowledge of any specific studies on the risks of intradialytic exercise, but we do know that they are higher than in the general population: a prevalence of cardiovascular disease and myoskeletal corrections.³ Standardisation in surveying these risks could help improve the prescription of intradialytic exercise and allow comparison between results from across haemodialysis departments.

1. Segura E, Rodilla-Alama V, Lisbon JF. Physiotherapy during hemodialysis: results of a progressive resistance-training program. Nefrología 2008;28 (1):67-72.
2. Shah MK. Simultaneous bilateral quadriceps tendon rupture in renal patients. Clin Nephrol 2002;58:118-21.
3. Johansen KL. Exercise and dialysis. Hemodialysis International 2008;12(3):290-300.
4. Cheema BSB, Singh MAF. Exercise Training in Patients Receiving Maintenance Hemodialysis: A Systematic Review of Clinical Trials. Am J Nephrol 2005;25:352-64.

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B) BRIEF COMMENTS ON BASIC RESEARCH AND CLINICAL INVESTIGATION

Allergy to latex and repeated vascular access thrombosis in haemodialysis

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Dear Editor:

Faced with the presence of recurrent vascular access (VA) thrombosis, it is necessary to research the possibility of anomalies in the vessels or a hypercoagulable state; however, to date no case has been described of an allergic reaction during the surgical act.

21 year old male who suffered repeated premature VA thromboses before starting haemodialysis,

probably related to an allergic reaction to latex. The patient was admitted to our department following two unsuccessful VA attempts. Vascular anomalies and hypercoagulable state had been ruled out. Surgery was initially successful, but after a period of a few minutes the patient developed a maculopapular pruriginous erythema along the entire manipulated venous tract and a disappearance of the fistula thrill and bruit. The problem developed subtly, and may have gone unnoticed had there not been high suspicion.

Faced with the possibility of an allergic reaction, a skin prick test was carried out, which revealed an allergy to latex (10mm papule and RAST of 43.3kU/ml [class 4] [vn <0.35kU/ml]

and some fruits (pineapple, chestnut, peach, banana and melon). A test for other possible related allergens was negative (formaldehyde, ethylene oxide, chlorhexidine, mepivacaine and lidocaine).

Before performing the fifth VA, the operating theatre was prepared according to the protocol for patients allergic to latex. A right humerocephalic AVF was created, proximal to the previous functioning AVF. The patient did not show any type of reaction either during or after the procedure.

Allergy to latex is generally an immediate allergic reaction mediated by IgE. In this instance, it appeared minutes after completing the VA, with