

Aquatic Plyometric Training Associated with Androgenic Anabolic Steroids do not Increase Muscle Mass in Rats #2

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To improve athletic performance or for aesthetic reasons, athletes and no athletes may use androgenic anabolic steroids (AAS). Numerous studies have reported that aquatic plyometric training (APT) can improve muscular strength and vertical jump; however the effect of these training protocols on muscular mass are poorly investigated. The aim of this study was to investigate the effects of APT associated with AAS in the soleus, gastrocnemius (Gastro), extensor digitorum longus (EDL) and tibialis anterior (TA) skeletal muscles in rats. Animals were grouped into: sedentary (S); S with AAS (AAS); trained (T); and T with AAS (AAS). Exercised groups performed jumps in water: 4 series of 10 jumps each and 30-second rest interval between series, for 7 weeks with a progressive overload of 50 to 80% of body weight and were killed after the last exercise session. Nandrolone decanoate (5 mg/kg - supraphysiological dose) was injected subcutaneously twice a week. One way analyses of variance was performed and there was no statistically significant difference between groups in EDL ($p=0.169$), TA ($p=0.739$), Gastro ($p=0.722$) and Soleus ($p=1.000$) muscles. AAS, training or their association induced no alterations in the weight of the studied muscles. In conclusion, the APT did not increase the muscle weight as well as the association with AAS treatment.

Key words: resistance training; androgenic anabolic steroids; muscular mass.

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