

Bölüm 2

KUVVET GELİŞİM ORANININ SPORTİF PERFORMANS SIRASINDAKİ FİZİKİ VE MORFOLOJİK YÖNÜ

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GİRİŞ

Kuvvetin minimum sürede üretilip performansa aktarımı birçok sportif eylemin başarısının temelinde yatan yetenek olarak görülmektedir. Literatürde bu yetenek, kuvvetin ortaya koyulduğu hız, genellikle kuvvet gelişim oranı (KGO) veya patlayıcı kas kuvveti olarak tanımlanmıştır^(1,2). En basit haliyle, KGO, kuvvet-zaman eğrisinin bükülmesiyle belirlenmektedir (Şekil-1) ve belirli bir hareket için hızlı ivme elde etme yeteneği ile direkt olarak ilişkilidir². Bilindiği gibi, birçok spor branşı çok kısa süreler içerisindeki eylemler neticesinde sonlanır (Şekil-2). Ancak, maksimal kuvvet vb. yöntemler spor branşlarındaki hızları taklit edemezler⁽³⁾. Yapılan çalışmalarda, maksimal kuvvete ulaşılması için gereken sürenin en az 300ms olduğu ortaya konulmuştur⁽⁴⁾. Bu nedenle, maksimal kuvvetin gelişimini sağlamak için gereken zaman, patlayıcılık gerektiren spor branşlarındaki gereken süreden önemli ölçüde daha uzundur. Tablo-1'de de görüldüğü gibi, sprint anındaki zemin ile temas süresi 0.08s ila 0.10s, uzun atlama take-off anındaki süre 0.11-0.12s arasında olacak şekilde değişkenlik göstermektedir. Bu nedenle, patlayıcı hareketlerin çoğunlukla olduğu branşlarda, maksimal kuvvet metodu vazgeçilmez olsa da yeterli olamamaktadır.

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layıcıların, KGO'nun morfolojik ve nöral süreçlerinin hangi bileşenlerden etkilendiğini anlamaları, doğru ve stabil bir planlama yapmaları konusunda yardımcı olacağı düşünülmektedir.

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