Bölüm 10

KAS-İSKELET AĞRILARINDA BOTULİNUM TOKSİN KULLANIMI

Enes Efe İŞ[1]

GİRİŞ

Kas-iskelet sistemi hastalıkları kemikleri, eklemleri ve kasları etkileyerek uzun süreli şiddetli ağrı, sertlik ve hareket kaybına neden olabilirler (1). Kas-iskelet ağrısı, dünya çapında engelliliğin önde gelen nedenlerinden biridir ve bu hastalıklara sahip kişilerin sağlıkla ilişkili yaşam kalitesi üzerinde ciddi etkilerinin yanı sıra sağlık sistemi ve sigorta maliyetlerinin toplum üzerindeki ekonomik etkisinde de külfetli bir role sahiptir. Genel popülasyonda kas-iskelet ağrısının prevalansı %30 civarındadır ve %13,5 ile %47 arasında değişmektedir (2, 3). Bu bağlamda, Fiziksel Tıp ve Rehabilitasyon (FTR) çeşitli akut ve kronik hastalıklarla ilgili kompleks işlev bozukluklarının ve sekellerin yönetimine odaklanan bir uzmanlık alanıdır ve kas-iskelet ağrıları, FTR hekimlerinin klinik görevlerinin önemli bir bölümünü oluşturur. Bu senaryoda, konservatif ve minimal invaziv tedavi seçenekleri, FTR pratiğinde son derece işlevseldir (4).

Son zamanlarda ağrının anlaşılmasında önemli gelişmeler olmuştur ve bu durum yeni teknikler ve tedavi stratejilerine yönelik çalışmaları beraberinde getirmiştir. Botulinum nörotoksini (BoNT), clostridium botulinum tarafından üretilen çeşitli nörotoksinlerden biridir ve genellikle spastisitenin multidisipliner tedavisinde kullanılmaktadır. BoNT'nin biyomekanik ve fonksiyonel fizyolojik kaybın geri döndürülmesine yardımcı olabilecek nöromüsküler blokaj sağlamak için değerli biyofarmasötik özellikler gösterdiği bilinmektedir. Bununla birlikte, son kanıtlar, BoNT'nin ayrıca antinosiseptif bir aktiviteye sahip olduğunu göstermiştir ve bu yönüyle BoNT özellikle kronik ağrılı kas-iskelet sistemi rahatsızlıklarının tedavisi üzerine araştırmalar yürüten birçok çalışmacının ilgisini çekmeyi başarmıştır (5-8).

[1] Uzm. Dr., Sağlık Bilimleri Üniversitesi- Şişli Hamidiye Etfal Eğitim ve Araştırma Hastanesi, Fiziksel Tıp ve Rehabilitasyon Kliniği, enefeis@gmail.com, ORCID iD: 0000-0002-2910-2532

azaltan (botulinum toksin enjeksiyonu) veya vücut iyileşme yanıtını uyaran (PRP, kuru iğneleme, ekstrakorporeal şok dalga tedavisi, yoğun terapötik ultrason) minimal invaziv prosedürler planlanır (107).

Plantar fasya ve gastrocnemius-soleus kaslarına yönelik BoNT enjeksiyonlarının, plantar fasyadaki gerimi azaltacağı, analjezik bir etkiye sahip olabileceği ve aşil uzatma prosedürlerinde meydana gelen perifasyal atrofi veya yırtılma riski olmadan gevşeme sağlayabileceği düşünülmektedir (106).

2022 yılında yayınlanan bir meta-analize 10 RKÇ'den toplam 485 kişi dahil edimiştir (BoNT -A grubunda 236 ve kontrol grubunda 249). BoNT -A 'nın uygulandığı anatomik bölge çalışmalar arasında farklılık göstermektedir; çoğu çalışmada uygulama doğrudan fasya yapışma bölgesine, 2 çalışmada ise gastrocnemius ve soleus kaslarına yapılmıştır. Uygulanan doz 50-250 U arasında değişmektedir. Yapılan analiz sonucunda ağrıdaki azalmanın 12 ay devam ettiği, fonksiyonel iyileşmenin ise 0-6 ay anlamlı kaldığı ifade edilmiştir (108).

SONUÇ

BoNT'nin kas-iskelet sistemi hastalıklarında endikasyon dışı kullanımına ilişkin literatür hızla ilerlemeye devam etmektedir. Uygun hasta seçimi, BoNT'nin kas-iskelet sistemi patolojilerinde net fonksiyonel sonuçları ve hedeflerini tanımlamak için esastır. Toksinin kronik kas-iskelet ağrısında kullanımına yönelik daha güçlü klinik öneriler sağlamak için daha fazla araştırmaya ihtiyaç vardır. Optimal doz ve farklı ağrı sendromları için optimal enjeksiyon tekniklerinin belirlenmesine yönelik çalışmaların araştırmacıların gündemini daha uzun süre meşgul edeceği aşikardır.

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