

OBEZİTE TEDAVİSİNDE HEDEFLENEN İYON KANALLARI

Merve Deniz DEĞİRMENCI¹
Sinan DEĞİRMENCI²

Giriş

Obezite, dünya çapında önemli bir sağlık sorunudur. Obezite; tip-2 diyabet, dislipidemi, hipertansiyon, kardiyovasküler komplikasyonlar, kanser ve osteoartrit için önemli risk faktörüdür. Obezite, multifaktöriyel bir hastalıktır ve problemin merkezinde vücuttaki enerji dengesizliği yer almaktadır. Dünya çapında, obeziteyi azaltmak veya kontrol etmek giderek büyüyen bir hedef haline gelmiştir. Obezitenin önlenmesi ve tedavisi için farmakolojik seçenekler hala çok sınırlıdır. Bu nedenle yeni ilaçların geliştirilmesine ihtiyaç vardır. Mevcut çabalar, yağ doku fizyolojisini daha iyi anlayarak ve yeterli işlevlerini sürdürmesini sağlayarak obezite ve ilişkili hastalıkları azaltmayı amaçlamaktadır. Adipositlerde birçok iyon kanalı tanımlanmıştır. Yağ dokuda iyon kanalları, adipogenez, termojenez gibi mekanizmaları düzenlemektedir. İyon kanallarının hedeflenmesi, obezitenin tedavisinde önemli bir terapötik potansiyel oluşturmaktadır. Bu bölümde iyon kanal-

larının yağ dokudaki etki mekanizmaları, obezite gelişimindeki etkileri ve güncel bilgiler eşliğinde potansiyel obezite tedavisi hedefleri hakkında bilgi verilecektir.

1. Obezite ve Tedavisinde Güncel Yaklaşımlar

Obezite, dünya çapında önemli bir sağlık sorunu haline gelmiştir. Ülkemizde obezite prevalansı, hem yetişkinlerde hem de çocuklarda son yirmi yılda önemli ölçüde artmıştır. Ülkemizdeki obezite prevalansı 2010 yılındaki verilere göre %36'ya ulaşmıştır⁽¹⁾. Kardiyovasküler komplikasyonlar, insülin direnci ve tip-2 diyabet, dislipidemi, kanser, osteoartrit ve kronik böbrek hastalığı gibi obeziteye bağlı komplikasyonlar yaşamı tehdit etmektedir. Obezite ve buna bağlı komplikasyonların oluşturduğu ekonomik yük artmaya devam etmektedir⁽²⁾. Obezitenin en önemli nedensel faktörü, enerji alımı ve enerji harcamasındaki dengesizliktir ve bu dengesizlikte beslenme

¹ Arş. Gör. Dr., Ankara Üniv. Tıp Fak. Fizyoloji Ab. D., mervedeniz93@gmail.com

² Arş. Gör., Ankara Üniv. Tıp Fak. Biyofizik Ab. D., snndegirmenci@gmail.com

kanalları yağ dokuda termojenez, adipogenez, kahverengileşme gibi birçok mekanizmayı düzenlemektedir. Kalsiyum, potasyum kanalları, nikotinik reseptörler, pürinerjik reseptörler ve transient reseptör potansiyel kanalları bu mekanizmalarda etkilidir. Son zamanlarda yapılan birçok çalışma iyon kanallarının hedeflenmesinin obezite tedavisinde etkili olacağını göstermiştir. Bununla birlikte, yağ doku fizyolojisini ve iyon kanallarının rolünü anlamak için daha fazla çalışmaya ihtiyaç vardır. İyon kanallarının mekanizmalarını ve fizyolojisini anlamak, obezite ve ilişkili metabolik bozuklukların tedavisi için daha güvenli ve etkili terapötik ajanların geliştirilmesini sağlayacaktır.

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