

## OBEZİTE VE NÖROLOJİ

Taşkın GÜNEŞ<sup>1</sup>

### Giriş

Obezite, sıklığı hızla artan, vücutta fiziksel, zihinsel ve endokrin değişikliklere neden olabilen, ciddi sosyal ve ekonomik sorunlar doğuran önemli bir halk sağlığı sorunudur. Nörolojik hastalıklar da sıklığı giderek artmakta olan ve yaşam kalitesini ciddi anlamda olumsuz etkileyen durumlardır. Endokrin fonksiyonu olan diğer organlarda olduğu gibi, yağ dokusundan salınan hormonların dengesindeki değişiklikler, nörolojik sistemler dahil vücuttaki tüm sistemlerin düzenli çalışmasını etkilemektedir. Genellikle yemek yeme ve nörolojik hastalıklar arasındaki ilişki iki yönlü bir ilişkidir. İnsan beyinde duygusal, kognitif ve limbik fonksiyonların büyük bir kısmını beslenme ve aşırı kilo alımıyla çok yakın ilişkili iken aşırı kilo alımı da bir çok nörolojik probleme yol açabilmektedir. Merkezi sinir sistemi (MSS)'nde yer alan hipotalamus, sindirim organları ile yağ hücreleri arasındaki humoral sinyaller, homeos-

tatik mekanizmalar ve enerji metabolizmasının dengesi düzenleyen yapıdır. Ayrıca glikoz, yağ asitleri ve spesifik gastrointestinal sistem (GİS) peptidlerinin yanında MSS'de eksprese edilen bir çok nöropeptid de yeme alışkanlığının düzenlenmesinde rol alır<sup>1</sup>. Günümüzde biriken kanıtlar yüksek yağlı diyet (YYD), obezite ve metabolik sendrom gibi antitelerin hepsini nörolojik hastalıklarla ilişkilendirmektedir. MSS ve periferik sinir sistemi (PSS) yapısal ve işlevsel bakımdan oldukça farklı olmasına rağmen, her ikisi de anormal visceral yağlanma nedeniyle ortaya çıkan işlev bozukluklarına duyarlıdır. Ayrıca obezite, sempatik / parasempatik sistem arasındaki dengeyi bozarak da, periferik sistemlerde ve organlarda otonom sinir sistemi (OSS) disfonksiyonu yaratabilir<sup>2</sup>. Bu bağlamda obez kişilerde birçok mekanizmanın etkileşimi sonucu nörolojik hastalıkların ortaya çıkabildiği düşünülmektedir.

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problemlerin klinik olarak tanınıp düzeltilmesi kalıcı nörolojik hasarların ortaya çıkmasına engel olabilmektedir. Öncelikle BC prosedürünün, iyatrojenik bir malabsorpsiyon durumu yarattığı ve bazı vitamin ve mineral eksikliklerine ve dolayısıyla nörolojik komplikasyonlara yol açabileceği akıldan çıkarılmamalıdır. Diğer yandan operasyonu takiben Guillain-Barre sendromu (GBS), subklinik ornitin karbamilaz (OTC) eksikliğinin aşikar hale gelmesi, D-laktat ensefalopati gibi bazı nadir nörolojik komplikasyonlarda gelişebilmektedir. Ayrıca operasyon sırasında, kaslarda basıya bağlı rabdomiyoliz gelişebileceği de unutulmamalıdır. Bu tablonun ortaya çıkmasından kaçınmak için pozisyonlamaya ve özel ameliyat ekipmanı kullanmaya dikkat edilmelidir. Aksi halde BC sonrası gelişebilen rabdomiyoliz şiddetli ve hatta ölümcül olabilmektedir<sup>256</sup>. Ayrıca operasyon sırasında kullanılan enstrümanlar, traksiyon uygulaması, kötü pozisyonlama, arteriyel basınç kateterleri hastalarda mononöropatiye de neden olabilmektedir. BC operasyonu sonrası ulnar, median, femoral ve peroneal sinirlerde tuzaklanmaya bağlı mononöropati komplikasyonları tanımlanmıştır. Diğer yandan nadiren lumbosakral ve brakial pleksopatiler de ortaya çıkabilir. Operasyon sonrası, kilo kaybına bağlı cilt altı dokuyu dolduran destek yağ dokusundaki azalma periferik sinirlerdeki tuzaklanmadan sorumlu tutulmaktadır. Mikrobesein eksiklikleri obezite cerrahisini takiben günler, aylar ve hatta yıllar sonra da ortaya çıkabilmektedir<sup>257</sup>. Genellikle bu vitamin ve mineral eksikliklerinin uzun süreli kusma, azalmış emilim, değişen beslenme tipi, değişen bağırsak florası nedeniyledir. Nörolojik belirtilere yol açabilecek mikrobesein eksiklikleri arasında B12, folat ve tiamin eksikliği, bakır, E vitamini, piridoksin, niasin ve D vitamini yer alır. BC sonrası tiamin eksikliğine bağlı polinöropatinin yanında, aksonal ve demiyelizan poliradikülönöropati de tarif edilmiştir<sup>256,258,259</sup>. BC sonrası yüksek proteinli diyetin yarattığı metabolik stres, daha önce asemptomatik olan OTC eksikliğini aşikar hale getirebilmektedir<sup>260</sup>. Erken postoperatif dönemde hızla ilerleyen nörolojik tablo varlığında özellikle rabdomiyoliz, Wernicke

ensefalopatisi ve GBS tabloları mutlaka akılda tutulmalıdır. BC sonrası, mikrobeseinlerde meydana gelen emilim bozukluklarının hızlı bir şekilde düzeltilmesi kliniğin daha iyi seyretmesine neden olur. Ayrıca BC sonrası görülen nörolojik komplikasyonlar genellikle mikrobesein eksikliği nedeni olsa da, GİS disfonksiyonu durumlarından da kaynaklanabileceği unutulmamalıdır<sup>261</sup>.

Sonuç olarak, BC sonrası ciddi ve genellikle geri dönüşümlü olan nörolojik komplikasyonlar meydana gelebilmektedir, bunların akılda tutulup önlem alınması veya erken tanınip tedavinin hızlıca başlatılması anahtar noktadır.

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