# 24. BÖLÜM

# KARDİYAK TRANSPLANTLI HASTALARDA HİPERTANSİYON TEDAVİSİ

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## GİRİŞ

Kardiyak transplantasyon, son dönem kalp yetmezliği olan hastalarda altın standart tedavi olmaya devam etmektedir. Cerrahi tekniklerde ve immünsüpresif rejimlerde kaydedilen büyük ilerleme sayesinde kardiyak transplantasyon sonrası sağ kalım ortalamaları 1 yılda %90, 5 yılda %72.5 'e ulaşmıştır. Sağ kalımdaki iyileşmeye rağmen kardiyak allogreftin yol açtığı benzersiz fizyoloji, immünsüpresif tedaviler (kortikosteroid, kalsinörin inhibitörleri vb.) cerrahi denervasyon, kısıtlayıcı fizyolojiye bağlı gelişen sıvı hassasiyeti ve ventriküler hipertrofiye bağlı olarak bir dizi komplikasyon ortaya çıkmaktadır (1,2).

Hipertansiyon kalp yetmezliği için en güçlü risk faktörlerinden biridir ve kalp yetmezliği hastalarının %91 'inde görülmektedir (3). Son dönem kalp yetmezliği hastalarının birçoğunda, düşük kardiyak output nedeniyle kan basıncı düşük olmasına rağmen, kardiyak transplantasyon sonrası fizyolojik değişiklere bağlı olarak kan basıncında yüksekliğe neden olur. Uluslararası Kalp ve Akciğer Transplantasyon derneğinin en son raporuna göre; kardiyak transplantlı hastalarda hipertansiyon tahmini prevalansı 1 yılda %72, 5 yılda %92 'dir (4).

## HİPERTANSİYON GELİŞİM MEKANİZMALARI

### Hormonal Eetki

Su ve sodyum tutulumu sonucu Renin Angiotensin ve Aldosteron Sistemi aktifleşir (5). Sodyum ve su homeostazında ortaya çıkan bu bozulma, erken kardiyak transplantasyon aşamasında hipertansiyona katkıda bulunan güçlü bir faktör olarak tanımlanmıştır (6,7). Kardiyak transplantasyonu takiben kan basıncında gece düşüşün olmaması da hipertansiyonun bir nedeni olarak gösterilmiştir. Kalp nakli yapılmış 34 hastadan oluşan bir çalışmada, hastaların %50 'sinde kan basıncında

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lardan nebivolol, endojen nitrik oksit uyarımı yoluyla vazodilatatör etkinlik sunar. Beta blokerler, olumsuz kronotropik etkileri ve sağ ventrikül üzerindeki olası olumsuz etkileri nedeniyle genellikle nakil sonrası erken dönemde önerilmez (60,63). Doksazosin gibi alfa blokerlerin güvenli ve etkili olduğu gösterilmiştir. Merkezi etkili alfa blokerler kullanılabilir, ancak yan etki profilinden dolayı daha az tercih edilir. Hidralazin renal disfonksiyonda güvenlidir ve çok az ilaç etkileşimi vardır. Bununla beraber, gerekli doz sıklığı ve öngörülemeyen doz-yanıt eğrisi uzun vadeli kullanımını sınırlandırmaktadır (68).

## SONUÇ

Hipertansiyon kalp nakli sonrası yaygın bir sorun olmaya devam etmektedir. Tedavi özelikle erken dönemde zor olsa da farklı patofizyolojik mekanizmaların anlaşılmasıyla tedavi seçenekleri artmakta ve kan basıncı kontrolü daha hızlı sağlanmaktadır. Su ve tuz kısıtlaması, immünsüpresif ajan seçimi, kombinasyon tedavileri genellikle kan basıncı kontrolünü sağlamada yeterlidir. Son olarak antihipertansif ajanın seçimi zamanlama (erken veya geç transplant dönemi) böbrek fonksiyonları, komorbiditeler ve potansiyel ilaç etkileşimi düşünülerek yapılmalıdır.

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