



# 17. Bölüm

## KARACİĞER İSKEMİ REPERFÜZYON

Metin ALKAN<sup>1</sup>

Ayşe Gülfem YALÇIN<sup>2</sup>

Ömer KURTİPEK<sup>3</sup>

### 17.1. Karaciğer İskemi Reperfüzyon

Karaciğer iskemi ve reperfüzyon (I/R) hasarı, travma, hemorajik şok, resüsitasyon, karaciğer nakli ve rezeksyonu ameliyatlarından sonra görülen, hücresel ölüm ve karaciğer disfonksiyonunun en önemli nedenidir. Karaciğer I/R hasarı, karaciğerin kan ve oksijen ( $O_2$ ) beslenmesinin kesilmesine ve ardından kan akışının ve doku oksijenasyonunun restorasyonuna yanıt olarak ortaya çıkan karmaşık bir fenomendir. Karaciğer rezeksyonu sırasında ve diğer intraoperatif manevralar esnasında kan kaybını azaltmaya yönelik teknikler, karaciğer I/R hasarına neden olabilir. Transplantasyon prosedürü sırasında ise karaciğerde I/R hasarı kaçınılmazdır. Bu, hafif organ disfonksiyonundan, karaciğer yetmezliğine kadar değişen sonuçlarla karaciğer canlılığını doğrudan etkiler. Karaciğer I/R hasarı kapsamlı bir şekilde incelenmiştir, ancak hala anlaşılmaması gereken çok şey vardır (1).

### 17.2. Karaciğer Anatomisi ve Fizyolojisi

Normal bir yetişkinde toplam vücut ağırlığının yaklaşık %2-3'ü kadar olan karaciğer, vücuttaki en büyük solid organdır. Karaciğerin portal ven ve hepatik

<sup>1</sup> Doç. Dr., Gazi Üniversitesi Tıp Fakültesi, Anesteziyoloji ve Reanimasyon AD., metoalkan@gmail.com

<sup>2</sup> Uzm. Dr., Gazi Üniversitesi Tıp Fakültesi, Anesteziyoloji ve Reanimasyon AD., gulfempusat@gmail.com

<sup>3</sup> Prof. Dr., Gazi Üniversitesi Tıp Fakültesi, Anesteziyoloji ve Reanimasyon AD., kurtipek@gazi.edu.tr

**Tablo 17.3. Sıcak ve soğuk iskemi tekniklerinin karşılaştırılması**

<b>Sıcak İ/R Hasarı</b>	İmmün yolaklarının aktivasyonu (kupffer hücreleri, nötrofiller) ve ROS üretimi baskındır Ağırlıklı olarak hepatosit hasarı
<b>Soğuk İ/R Hasarı</b>	Donör greftin çıkarılıp soğuk saklanması ve transplante edilmesi ile oluşur Endotel hücreleri soğuk iskemiye daha duyarlı Ağırlıklı olarak mikrosirkülasyonun bozulması ile İ/R hasarı, pihtlaşmaya bağlı iskemi Uzamiş soğuk İ/R ile immün hücre aktivasyonu, ROS üretiminin ön planda olduğu hasarlanma baskın hale gelir

**Tablo 17.4. Cerrahi tekniklerin karşılaştırılması**

Normotermik iskemi-portokaval dekompresyon ile global karaciğer iskemisi	Pringle manevrası ile oluşan İ/R'a ek olarak portokaval dekompresyon ile intestinal koruma
Normotermik iskemi- dalak transpozisyon ile global karaciğer iskemisi	Portosistemik kollateraller gelişmesi için uzun süre (yaklaşık 3 hafta) geçmelidir
Normotermik iskemi- kısmi karaciğer iskemisi	Portal dekompresyon gerektirmez Tersinir, basit ve tekrarlanabilirdir
Soğuk iskemi-transplantasyon	Mikrovasküler teknik, kliniğe daha uyumlu Manşet anastomoz tekniği, daha kolay Mikrocerrahi teknik deneyim gerektirir

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