

25. Bölüm

EKSTRAKORPOREAL MEMBRAN OKSİJENASYONU (ECMO)

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Mekanik kardiyopulmoner destek çoğunlukla kalp cerrahisini (yani kardiyopulmoner bypass) kolaylaştırmak için intraoperatif olarak uygulanır. Bununla birlikte, kardiyopulmoner destek, daha az yaygın olmasına rağmen, yoğun bakım ünitesinde daha uzun süre verilebilir. Uzamış kardiyopulmoner desteğe ekstrakorporeal membran oksijenasyonu (ECMO), ekstrakorporeal yaşam desteği veya ekstrakorporeal akciğer desteği denir. İki tip ECMO vardır - venöz materyal (VA) ve venöz (VV). Her ikisi de solunum desteği sağlar, ancak sadece VA ECMO hemodinamik destek sağlar.

ECMO'nun klinik sonuçlar, hasta seçimi, teknik yönler ve komplikasyonlar üzerindeki etkisi burada gözden geçirilecektir. Sadece yetişkinlere yönelik uygulamalar tartışılmaktadır. Endikasyonlar, komplikasyonlar ve sonuçlar hakkında geniş bilgi Ekstrakorporeal Yaşam Destek Örgütü'nün web sitesinden elde edilebilir ⁽¹⁾.

Sağkalım: ECMO uygulanan hastaların sağkalımı, ECMO endikasyonuna göre kategorize edilebilir: ciddi akut solunum yetmezliği veya kalp yetmezliği.

AKUT SOLUNUM YETMEZLİĞİ

Çok sayıda çalışma, şiddetli akut solunum yetmezliği olan hastalarda ECMO'nun morta-

lite üzerine etkisini değerlendirmiştir ⁽²⁻¹⁵⁾. Şiddetli akut solunum yetmezliği olan hastaların birkaç gözlemsel çalışması ve kontrolsüz klinik çalışması, tarihsel kontrol oranları ile karşılaştırıldığında ECMO alan hastalarda hayatta kalma oranlarını yüzde 50-71 arasında bildirmiştir ^(2-10,11-16). 1970'lerde ECMO'nun kötü tasarlanmış iki randomize çalışmasından sonra, iki büyük randomize çalışma ve bir eşleştirilmiş eğilim eğilimi analizi, şiddetli akut solunum sıkıntısı sendromu (ARDS) olan hastalarda bir ECMO merkezine erken transferin faydasını göstermiştir ^(10,11,17). Bununla birlikte, çalışmalar geleneksel tedavi kolundaki heterojen ventilasyon stratejileri ve konvansiyonel tedavilerden ECMO'ya önemli bir geçiş ile engellenmiştir. Dengede, ECMO'nun konvansiyonel bakıma cevap vermeyenlere (örneğin sürekli olarak 70 mmHg'den az) yararlandığına ve ECMO'nun kurtarma tedavisi yerine erken döneminde kullanılması gerektiğinden; bu nedenle, şiddetli akut solunum yetmezliği olan yetişkin hastalar, hastalıklarının erken döneminde ECMO'nun değerlendirilmesi için bir ECMO merkezine yönlendirilmelidir (örn. ilk yedi gün içinde). ECMO'nun potansiyel yararı daima transfer riskine karşı tartılmalıdır. Deneysel ECMO merkezlerinde, hastaların yaklaşık yüzde 25'i ECMO olmadan iyileşecekken, has-

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kalıcı olarak ayırmadan önce, hastanın ECMO'su kapalı olduğu bir veya daha fazla deneme yapılmalıdır. Bu tür denemeler klinisyene geleneksel destekleyici bakımın hasta için yeterli olup olmadığını belirleme fırsatı verir. (Bkz. Yukarıdaki 'ECMO'dan ayrılma').

Kanama, ECMO'nun en sık görülen komplikasyonudur (yüzde 30 ila 40). Tromboembolizm ve kanül komplikasyonları nadirdir (<yüzde 5). (Bkz. Yukarıdaki 'Komplikasyonlar').

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