34.
BÖLÜM

YOĞUN BAKIMDA AKUT KALP YETERSİZLİĞİ

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GİRİŞ

Akut kalp yetersizliği (KY), planlanmamış hastaneye yatışların en sık nedenidir. Bununla birlikte, KY dekompanzasyonunun mekanizmaları hala belirsizliğini korumaktadır. Tedavide de diüretik, vazodilatör, inotrop ve vazopressör tedavileri de dahil olmak üzere çoğu tedavinin dispne ve sonlanım üzerine etkileri konusunda kanıt olmamasına rağmen halen kullanılmaktadır.

Hastane içinde akut KY hastaları, acil uzmanları, yoğun bakım uzmanları, kardiyolog ve iç hastalıkları uzmanları gibi farklı branş uzmanlarının karşısına çıkmaktadır. Bu farklı branşların yönetimi de kendine özgün olmaktadır. Bu bölümde yoğun bakımda akut KY'ye yaklaşım anlatılacaktır.

TANIM

Akut KY, kalp yetersizliği (KY)'nin semptom ve belirtilerinin hızlı başlangıcı veya kötüleşmesi anlamına gelir. Yeni başlangıçlı ("*de novo*") veya kronik KY'nin akut dekompanzasyonu şeklinde gelişebilir. Akut KY hastalarında, ejeksiyon fraksiyonu (EF) korunmuş veya düşük olabilir. Akut KY'nin klinik fenotipleri, akut pulmoner ödem, hipertansif KY, dekompanze kronik KY ve kardiyojenik şok durumlarını içerir [1]. Öncelikle kalp hastalığı olmasına rağmen yetersiz kan dolaşımı nedeniyle akut KY tüm hayati organları etkileyen sistemik bir bozukluğa yol açar. Organ disfonksiyonunun başlıca iki mekanizması konjesyon ve hipoperfüzyondur. Birden fazla organ tutulumunun varlığı, örneğin kardiyorenal ve kardiyohepatik sendrom gelişmesi, artan mortalite ile ilişkilidir [2,3]. Kardiyojenik şok, akut KY'nin en ciddi şeklidir. Hipovolemi ekarte edildiğinde sistolik kan basıncının 90 mmHg altında veya 90 mmHg olması için vazopressör gereksinimi olmasına hipoperfüzyon bulgularının (soğuk veya nemli cilt, konfüzyon, oligüri, yüksek laktat seviyesi) eşlik etmesi olarak tanımlanır. Erken ve etkili tedavi uygulanmadığı durumlarda, kardiyojenik şok sistemik enflamatuvar yanıtı başlatabilir ve çoklu organ yetersizliğine sebep olup sonunda ölüme yol açabilir.

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melidir [80]. Endomiyokardiyal biyopsi halen altın standart tanı yöntemidir. AKS dışlanmasından sonra ve hızlı iyileşme belirtisi yok ise, normal boyutta veya dilate ventriküllere sahip hemodinamik açıdan riskli akut KY' de veya potansiyel tedavi seçeneği olan özgün miyokarditin klinik şüphesi yüksek olduğunda yapılması önerilmektedir [81]. Miyokardite yönelik genel veya özgün immünolojik tedavilerin rutin kullanımı tavsiye edilmemektedir ancak bazı özgün etiyolojilerde faydası olabileceği düşünülmektedir [80,82].

Predominant Sağ Ventrikül Yetersizliği

Bazı akut KY hastalarında, juguler venlerde ve karaciğerde konjesyonun izlendiği baskın olarak sağ ventrikül yetersizliği belirtileri vardır. Pulmoner emboli, perikardiyal tamponad, sağ ventrikül enfarktüsü veya pulmoner vasküler hastalığı özgeçmişi olan hastalarda daha baskın olarak sağ ventrikül yetersizliği görülebilir. Sağ ventrikül yetersizliğinde tanıyı doğrulamak, pulmoner basınçları değerlendirmek ve ilişkili olabilecek kapak hastalığını tespit edebilmek için acil olarak ekokardiyografi ile değerlendirme yapılmalıdır. Karaciğer fonksiyon testlerinde (özellikle kolestaz) ve böbrek belirteçlerinde değişiklik, serum laktat düzeyinde (karaciğer tıkanıklığının bir işareti olarak) dikkate değer bir artışla ilişkilendirilebilir [2]. Sağ ventrikül enfaktüsünde acil revaskülarizasyon veya masif pulmoner emboli ve hemodinamik instabilite durumunda trombolitik tedavi gibi ilk müdahale yapılarak sebep olan faktör düzeltilmelidir.

Sağ ventrikül yetersizliğinin hemodinamik yönetiminde; kan basıncı, sağ ventrikül ön yük, sağ ventrikül artyük (pulmoner rezistans) ve sağ ventrikül kontraktilite değerlendirilip müdahale edilmelidir. Hipotansiyon varlığında, koroner ve diğer organ perfüzyonunu korumak için vazopressör olarak norepinefrin kullanılmalıdır.

Özellikle yüksek PEEP ile mekanik ventilasyon uygulanması pulmoner basınçta artışa yol açar ve sağ ventrikül art yükünde azalmaya yol açarak sağ ventrikül işlev bozukluğunu şiddetlendirebilir. Bununla birlikte; hipoksik pulmoner arter vazokonstriksiyon azalması için hiperkapninin, asidozun ve alveolar hipoksinin düzeltilmesi sağ ventrikül artyükünü azaltmak için gerekli olan ilk eylemdir. Pulmoner basınçları daha da azaltmak için nitrik oksit veya prostanoidlerin inhalasyonu etkili seçeneklerdir. Özellikle hemodinamik stabilitesi olmayan hastalarda sağ ventrikül kontraktilitesini ve kardiyak debiyi eski haline getirmek için birkaç inotrop ilaç seçeneği vardır [83]. Milrinon ve levosimendanın her ikisinin de pulmoner direnci azaltıcı etkisi olup bu senaryoda özellikle faydalı olabilir [61]. Farmakolojik tedavi başarısız olursa, veno-arteriyel ECMO sistemik oksijenasyonu sağlamak ve sağ ventrikül yükünü azaltmak için kullanılabilir [21].

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