

Bölüm 31

KALP YETMEZLİĞİ PATO FİZYOLOJİSİ

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1.1 KALP YETMEZLİĞİNİN TANIMI

Kalp yetmezliği'nin bilinen ilk tarifleri milattan önce 1500'lü yıllarda Eski Mısır'daki Firavun III. Thutmose zamanındaki papirüsler kadar eskidir. Eski Mısırlılar temel fizyoloji ile ilgili bazı bilgilerin yanında ateroskleroz, kardiyak hipertrofi gibi patolojilerle ilgili fikir sahibiydiler. Bazı yazıtlarda kalp yetmezliği kalbin yorgun oluşu olarak tanımlanmış ve kalbin konuşmaktaki zorluğunun damarlarındaki sessizlikle ilgili olduğu betimlenmiştir (1). Antik Yunan ve Çin kaynaklarında da kalp yetmezliğinin klinik bulguları tarif edilmekle beraber William Harvey'in 1628'de dolaşımı tarifine kadar patofizyolojinin özüne dair isabetli bir tanımlama yapılamamıştır(2). 18. Yüzyılın ikinci yarısında sağ taraflı kalp yetmezliği, dijitalerin olumlu etkileri ile ilgili ilk yayınlar yapılmış, farklı kapak hastalıklarının kalp üzerine farklı etkileri olduğu ilk kez tarif edilmiştir (3-5). 1890'larda Röntgen cihazının icadı ve Eindhoven'in elektrokardiyografiyi keşfi sonrası 1918'de E.H. Starling'in (6) kardiyak hemodinaminin fizyolojisini doğru bir şekilde tanımlaması kalp yetmezliği ile ilgili bilgilerimizde bir dönüm noktası olmuştur.

1929 yılında genç bir cerrahi asistanı olan Werner Forssmann'ın modern anlamda ilk kalp kateterizasyonunu (7) tanıtmaya başlı başına anılması gereken bir olaydır. Bilimsel çevrelerce yaşayan bir insan üzerinde deneyler yapmanın etik olmadığı ve çalışan kalbe dokunmanın ölümcül olduğu düşünülen bir ortamda o tarihte daha 25 yaşında olan

Werner Forssmann antekübital ven yoluyla ve 65 cm'lik üreteral kateter ile kendi kendine kalp kateterizasyonunu ağrısız ve komplikasyonsuz olarak yapmıştır. Kendi üzerinde 17 cutdown yaptıktan sonra kendi vücudunda çalışılacak ven kalmayana kadar deneylerine devam etmiş ve hemodinamik çalışmaların kapısını aralamıştır. 1980 yılında E. Braunwald tarafından kalp yetmezliği dokuların metabolik gereksinimlerinin kalp fonksiyonlarında bozulma nedeni ile karşılanamaması olarak tanımlanmış (8) 1985 yılında Philip Poole-Wilson renal, nöral ve hormonal bileşenleri olan bir sendrom olarak tarif etmiştir (9).

Güncel kılavuzlarda kalp yetmezliği kalbin doluş ve kanın ejeksiyonunda kalbin yapısal ya da fonksiyonel patolojileri nedeni ile bozulma nedeni ile egzersiz intoleransı ve pulmoner, splanknik ya da periferik konjesyon bulgularının eşlik ettiği kompleks klinik bir sendrom olarak tanımlanmıştır. Bazı olgularda sıvı yüklenmesine ait belirgin bulgular olmamasına rağmen egzersiz intoleransının ön planda olması nedeni ile 'Konjestif kalp yetersizliği' terimi yerini 'Kalp yetersizliği' ne bırakmış; bunun yerine sıvı yüklenmesini ve organ perfüzyonunun bozulmasını belirtmek amacı ile dekompanse kalp yetersizliği tanımlaması yapılmıştır (10).

1.2. Kalp Yetmezliğinin Sınıflandırılması

Kalp yetmezliği genel olarak birçok farklı etyoloji ve mekanizmalarla gelişebilir. Aritmiler, kapak hastalıkları, perikard hastalıkları ve konjenital hastalıklar gibi konjesyon yapan hastalıklar ayrı

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