

15. Bölüm

İMLANTE EDİLEBİLEN KARDİOVERTER DEFİBRİLATÖRLER (ICD)

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Modern implante edilebilen kardiyoverter defibrilatör (implantable cardioverter-defibrillator) (ICD) hayatı tehdit edici aritmileri sonlandırmak için tasarlanan çok fonksiyonlu, çok programlanabilir, elektronik bir cihazdır. Ventriküler taşikardi (VT), ventriküler fibrilasyon (VF) veya bradikardi ataklarını otomatik olarak tespit etmek ve kontrol altına almak için programlanmıştır. Mevcut ICD'ler antitaşikardi pacing (ATP), kardiyoversiyon ve defibrilasyon kombinasyonunun dahil olduğu çok kademeli tedaviler verebilir. Bu cihazlar ayrıca hız cevaplı tek veya çift odacıklı pacing ve otomatik mode değiştirme fonksiyonunun olduğu bradikardi desteği sağlar. Modern ICD'ler kalp yetmezliği tedavisinde önemli bir gelişme olan resenkronizasyon tedavisi de verebilir. Cihazlar ayrıca kolayca elde edilebilecek şekilde elektrokardiyogram saklama kapasitesine sahiptir. Bu fonksiyon hastanın takibinde ve cihazın programlanmasında ileri imkanlar sağlar.

Pek çok klinik çalışma ICD'lerin ani kardiyak ölümü doğru olarak tespit etmek ve başa çıkma açısından etkin olduğunu göstermiştir. Ani kardiyak ölümün primer ve sekonder profilaksisinde ICD'lerin konvansiyonel ilaç tedavisine üstün olduğu gösterilmiştir. ICD yerleştirilmesi endikasyonu olan hastaların çoğu iskemik veya

non-iskemik sol ventrikül (LV) disfonksiyonu olan hastalardır.

Mirowski ICD kavramını ilk olarak 1960'lar da tanıttırıştır; ancak ilk insan implantı 1980'de bildirilmiştir. Geçmişteki ICD yerleştirilmesi epikardiyal lead yerleştirilmesi için torakotomi yaklaşımı gerektiriyordu. Son 30 yıldaki cihaz ve lead teknolojisindeki gelişmeler puls jeneratörünün boyutunu önemli ölçüde küçültmüş, programlanma yeteneği geliştirmiş, tanısal verinin cihazın içinde saklanmasını mümkün hale getirmiştir. VF, de-fibrilasyon ve kardiyak pacingin anlaşılması epikardiyal yama ihtiyacı olmadan bifazik şok dalgaları ve transvenöz pace/defibrilatör lead sistemlerinin gelişimi ile sonuçlanmıştır. Sonuç olarak, modern ICD'ler gelişmiş programlanma yeteneğine sahip olan, transvenöz yaklaşımla yerleştirilebilen çok daha kompakt cihazlardır. Son jenerasyon cihazlar telefonla sorgulama kapasitesine sahiptir. ⁽¹⁾

Kalp yetmezliği hastalarında, özellikle daha hafif semptomları olanlarda, ölümlerin büyük bir kısmı aniden ve beklenmedik bir şekilde ortaya çıkar. Bunların çoğu ventriküler aritmiler, bradikardi ve asistol dahil olmak üzere elektriksel bozukluklardan kaynaklanır, ancak bazıları koroner, serebral veya aortik vasküler olaylara

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kesebilen, giyilebilir bir ICD (uçları ve giyilebilir yeleğe bağlı elektrot pedleri olan harici bir defibrilatör), ani yüksek ölüm risk taşıyan kalp yetmezlikli seçilmiş hastalarda sınırlı bir süre için düşünülebilir ancak başka türlü ICD implantasyonu için uygun değildir (örn. LV fonksiyonu düzelinceye kadar akut miyokard hasarı sonrası zayıf LVEF olanlar, kalp nakli planlanan hastalar).⁽³⁹⁻⁴²⁾ Ancak, bu cihazı değerlendiren prospektif randomize kontrollü çalışma bildirilmemiştir.

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