

24. BÖLÜM

ONKOLOJİDE GÖRÜNTÜLEME EŞLİĞİNDE ABLASYON YÖNTEMLERİ

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|GİRİŞ

Görüntüleme eşliğinde ablasyon işlemleri birçok organ ve kanser tipinde uygulanabilen, teknolojik olarak giderek gelişen ve daha sık tercih edilen tedavi yöntemleridir. Radyofrekans ablasyon (RFA), mikrodalga ablasyon (MDA), kriyoablasyon (KA), yüksek yoğunluklu odaklanmış ultrasonografi, lazer ablasyonu, irreversible elektroporasyon (IRE), kimyasal ablasyon (etanol, asetik asit) ve brakiterapi gibi pek çok termal ve non-termal ablasyon yöntemi bulunmaktadır. Bölümümüzde ağırlıklı, güncel metodlar olarak girişimsel radyologların klinik pratiğinde sıkça uygulanan ablasyon yöntemleri üzerinde durulacaktır.

|ISI TEMELLİ ABLASYON

Isının hemostaz için kullanımı antik Hindu ve Yunan şifacılarından kalma binlerce yıldır kullanıla gelen bir uygulamadır. Hipokrat’a ait kaynaklarda “ilacın tedavi edemediği hastalıkları bıçağın, bıçağın tedavi edemediği hastalıkları ateşin tedavi ettiği” bilgisi yer almaktadır (1). Termal ablasyonda uygulanan ısının derecesi ve uygulama süresi ile hedef dokunun özelliklerine bağlı oluşan perfüzyon artışı, vasküler koagülasyon ve frajiliteye bağlı hücre ölümü gelişmektedir (2). Her organ ve kitlenin kendine özel doku karakteristiği nedeni ile oluşan termal değişiklikler ve ablasyon zonu boyutu farklı olmaktadır. Ancak tipik olarak hedef dokuda 55°C dereceye ulaşan ısı artışında koagülasyon nekrozu oluşmaktadır. Ablasyon modalitelerinin etki mekanizmalarının ve hedef dokudaki termal kinetiklerinin bilinmesi tedavi yönteminin seçiminde anahtar rol oynamaktadır.

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