BÖLÜM 25

MEME KANSERİ UYGULAMALARINDA FARKLI RADYOTERAPİ TEKNİKLERİ

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GİRİŞ

Meme kanseri hastalarında primer tedavi cerrahi ve gereken hastalarda neoadjuvant veya adjuvant kemoterapi (KT) ve postoperatif radyoterapidir (RT). Yapılan çalışmalarda postoperatif RT ile normalde beklenenden daha düşük bir yaşam avantajı elde edmesi nedeni ile bu düşüklüğün sebepleri araştırılmıştır. En önemli sebebin özellikle kalp ve akciğerdeki yan etkilere bağlı olduğu tesbit edildiğinden yan etkileri azaltabilmek için farklı radyoterapi (RT) teknikleri geliştirilmiştir. 1980'li yıllarda meme kanserinde postopertaif RT gerekli olan hastalarda iki boyutlu (2D) RT uygulanıyordu. 2D RT ile yan etkiler günümüzdeki RT tekniklerine göre çok daha yüksekti. Normal dokular ancak tanjansiyel meme alanları, wedge kullanarak bir ölçüde azaltılabiliyordu. 1990'lı yıllarda üç boyutlu (3D) konformal tedavilere (3DCRT) geçildikten sonra yan etkilerde büyük oranda düşme görüldü. Kalp ve akciğer toksisitesini daha da düşürmek için yoğunluk ayarlı RT (IMRT) metodu geliştirildi. Ark tedavileri ile RT yan etkileri daha da düşürüldü. Ark tedavilerinin getirdiği bazı sorunlar vardı ve en önemli dezavantajı ise normal organlardaki düşük doz oranlarını artırmasıydı. Hacim ayarlı RT volümetrik modulasyonlu ark tedavisi (VMAT) ve proton tedavileri, yoğunluk ayarlı proton RT (IMPT) ile, meme RT yan etkileri daha da düşürülebilmiştir (1,2).

1970'li yıllarda erken ve geç meme kanserinde lokal nüksleri azaltmak yaşam oranlarını artırmak amacı ile mastektomi tercih edilirdi. Radikal mastektomi son-

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