BÖLÜM 4

RADYOKILAVUZLU CERRAHİ UYGULAMALARINDA KULLANILAN RADYOFARMASÖTİKLER

Fadime DEMİR[1]

GİRİŞ

Cerrahi uygulamalara yardımcı nükleer tıp yöntemleri son dönemde kullanımı giderek artan, gereksiz cerrahi uygulamalardan kaçınmayı sağlayan ve tedavi yöntem seçimine yardımcı olan uygulamalardır. Radyokılavuzlu cerrahi uygulamalarının tarihçesi 1949 yılında Selverstone ve arkadaşlarının beyin tümörlerinin cerrahisinde Fosfor-32 (P-32) ve Geiger-Müller cihazı kullanarak yaptıkları çalışmaya kadar uzanmaktadır (1). Uygulamaları üç başlık altında toplamak mümkündür. Bunlar 1) Sentinel Lenf Nodu (SLN) Görüntülemesi ve radyokılavuzlu cerrahisi 2) Radyasyon kılavuzluğunda küçük lezyon lokalizasyonu yöntemi olan RKLL ve radyoaktif çekirdek (seed) ile işaretleme yöntemi olan RÇİ uygulamaları (direkt yöntem) ve 3) Radyasyon kılavuzluğunda cerrahi uygulamalar (indirekt yöntem)'dır.

SENTİNEL LENF NODU (SLN) GÖRÜNTÜLEMESİ VE RADYOKILAVUZLU CERRAHİSİ

Sentinel lenf nodu primer tümörün doğrudan direne olduğu bölgesel lenf düğümleri olup, metastatik hücrelerin lenfatik yolla var olabileceği ilk bölgedir. SLN haritalaması ve biyopsisi erken evre tümörlerde lenfatik yayılım olup olmadığının saptanmasını sağlayarak, daha az invaziv cerrahi prosedürlerin uy-

[1] Dr. Öğr. Üyesi, Tokat Gaziosmanpaşa Üniversitesi, drfadimedemir@hotmail.com

çalışmada uygun maliyet ve üstün performansı nedeniyle potansiyeli yüksek bir ajan olarak sunulmuştur (79). Maurer ve arkadaşlarının yapmış olduğu çalışmada Ga-68-PSMA PET/BT görüntülemesinin ardından ortalama 571 MBq (15 mCi) Tc-99m-PSMA (Tc-99m-PSMA-I&S) enjeksiyonundan bir sonraki gün (ortalama 19,7 saat) uygulanan cerrahi ile metastatik lezyonların başarılı bir şekilde çıkarıldığı raporlanmıştır (80).

SONUÇ

Cerrahi uygulamalarda temel alınan amaçlar etkinlik, cerrahi süresinin minimumda tutmak ve hastanın en kısa sürede hastaneden taburcu olmasını sağlayarak maliyetin azaltılmasıdır. Radyokılavuzlu cerrahi uygulamalar cerrahi uygulanacak lezyonun kolay ve doğru biçimde lokalizasyonunu sağlarken, diğer yandanda cerrahi kesi alanının minumuma indirilmesine yardımcı olmakta böylece operasyon süresini azaltmaktadır. Son yıllarda artan bir ivmeyle alanında bir çok gelişme ve yenilik izlenen nükleer tıp yöntemleri ve radyonüklidler, klinisyenlere tanı ve tedavi alanında yardımlarının yanısıra, cerrahi alanda da giderek artan kullanım ve etkinlik sağlayacağını düşündürmektedir.

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