

Bölüm 14

FARKLI RADYOFARMASÖTİKLER İLE RADYOEMBOLİZASYON YÖNTEMLERİ

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GİRİŞ

İster hepatosellüler karsinom (HCC) ya da kolanjikarsinom gibi primer karaciğer tümörleri olsun isterse de karaciğere metastaz yapan kanserler ile ilişkili; karaciğer malignitelerinde ölüm oranı oldukça yüksektir ve insidansı gün geçtikçe artış göstermektedir^(1,2). Tedavi seçenekleri bu ölçüde olmasa da her geçen gün çeşitlenmektedir. Bilinen küratif tedavi cerrahi olmakla birlikte başta primer karaciğer tümörü HCC olmak üzere primer ve metastatik hastaların ancak %30'luk bir kısmı (geciken tanı, yaygın hastalık, cerrahi kontraendikasyonları gibi sebepler ile) cerrahiye aday gösterilebilmektedir. Cerrahi yapılamayan hastalarda ise lokal ve sistemik tedaviler devreye girmekle birlikte primer karaciğer tümörlerinde özellikle sistemik kemoterapötiklerin etkinliğinin kısıtlı olduğu bilinmektedir. Ancak karaciğere yönelik lokal ablatif tedaviler (radyofrekans ablasyon (RFA), kriyoterapi, peruktan alkol enjeksiyonu, kemoembolizasyon (TACE) ve radyoembolizasyon (TARE)) oldukça umut vaat etmektedir.

Karaciğerin vasküler anatomisi hem hepatik arterden hem de portal venden beslemeye imkan sağladığı ve tümörlerin ağırlıklı olarak hepatik arterden beslenmesi nedeniyle sistemik tedavilerin yanı sıra direkt karaciğer tedavileri gündeme gelmiştir. Bunlardan TACE (transarteriyel kemoembolizasyon) intraarteriyel olarak Lipiodol ve kemoterapötik emülsiyonunun verilmesi prensibine dayanır ve intermediate HCC'lerde ve bazı metas-

tatik hastalıklarda standart tedavi olarak algoritmalarda yerini almaktadır⁽³⁾. TARE'de de benzer biyolojik yöntem ile intraarteriyel olarak tedavi edici etkisinden yararlanmak için beta partikül içeren radyofarmasötiklerden faydalanılır. İntraarteriyel lokal bir tedavi olması, sınırlı alana radyasyon vermesi ve sağlıklı karaciğer dokusunun yüksek oranda korunması nedeniyle TACE'ye iyi bir alternatif olduğu görülmektedir⁽⁴⁻⁸⁾. Şu ana kadar TARE, Barcelona Klinik Karaciğer Kanseri (BCLC) evreleme sisteminden elde edilen mevcut tedavi önerilerinde henüz yerini alamamıştır. HCC'de TARE ile ilgili yoğun literatüre rağmen, TARE'yi TACE veya sorafenib gibi kabul edilen diğer tedavi seçenekleriyle karşılaştıran prospektif randomize çalışmaların eksikliği göze çarpmaktadır. Her ne kadar BCLC kılavuzunda yer almasa da -özellikle PVT (portal ven trombozu) olan hastalarda⁽⁹⁾- birçok çalışma Y-90 TARE tedavisinin palyatif kullanımından küratif kullanımına dek olan bir yelpazede etkin ve güvenilir olduğunu göstermektedir.

Lokal ablatif tedaviler içerisinde Radyoembolizasyon tedavi etkinliği ortaya kondukça ve yan etki profilinin düşüklüğü göz önüne alındığında gittikçe popüler hale gelmekte olup bu tedavide kullanılan radyofarmasötikler günümüzde sınırlıdır. Ancak daha ucuz ve kolay erişilebilir olacağına inanılan başka radyofarmasötikler ile yapılan çalışmalar yoğun bir şekilde devam etmektedir.

Karaciğere metastatik hastalıkların karaciğere yönelik lokal tedavileri ilerleyen bölümlerde anla-

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yapılmalıdır. Ayrıca, TARE'in spesifik aktivitesinin optimizasyonu, embolik dağılımın belirlenmesi ve kişiselleştirilmiş dozimetri için (enjeksiyon öncesi ve sonrası) daha fazla klinik ve klinik öncesi çalışmaya ihtiyaç olduğu anlaşılmaktadır.

Anahtar Kelimeler: radyoembolizasyon, I-131, Ho-166, Re-186/188, HCC

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