

BÖLÜM 27

Kranial Radyonekroz ve Tedavisi



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GİRİŞ

Radyoterapi (RT), yarım yüzyıldan fazla bir süredir intrakraniyal tümörlerin tedavisinde kullanılmaktadır. İlk RT tekniklerinde beyinin tümüne irradyasyon verilirken, stereotaktik cerrahi (SRS), bilgisayarlı tomografi (CT) ve magnetik rezonans görüntüleme (MR) tekniklerindeki ilerlemeler, gelişen radyoterapi cihaz ve teknikleri sayesinde hedefe odaklanan bir RT yaklaşımını mümkün kılmıştır (1). Radyasyon kaynaklı beyin hasarının ilk bulgusu 1930 yılında, kafatasına X-ışını radyasyonu alan 45 yaşında bir erkek hastada bildirilmiştir (2).

Beyin metastazlarının temel fokal tedavi seçenekleri cerrahi, stereotaktik radyocerrahi (SRS) ve tüm beyin radyasyon terapisi (WBRT) (3). Bugün için SRS, istenmeyen nörobilişsel yan etkilerin oranının daha düşük olması nedeniyle WBRT'ye tercih edilmektedir. Bununla birlikte SRS sonrası nadir, ancak potansiyel olarak tehlikeli yan etkiler bildirilmiştir. Radyasyon nekrozu, SRS'nin beyin veya çevresindeki yapılarda yol açtığı geç bir komplikasyonu şeklinde ortaya çıkabilir. Serebral

radyasyon nekrozu, RT'nin tamamlanmasından 3-12 ay sonra ortaya çıkan ağır bir lokal doku reaksiyonu olarak tanımlanmakla birlikte, tedavinin tamamlanmasından sonraki birkaç yıl içinde oluşan olgular da bildirilmiştir (4). Radyoterapi sonrası uzun dönem sağ kalımdaki artışlar göz önüne alındığında, radyasyon kaynaklı nörolojik komplikasyonlar önemli bir araştırma alanı olarak giderek daha fazla ilgi görmektedir. Bu bölümde radyasyon nekrozunun insidansı, etiyolojisi, patofizyolojisi, tanı, ayırıcı tanı, tedavi ve önlenmesi konularına yer verilmektedir.

KRANİAL RADYONEKROZ

İnsidans

RT'yi takiben radyasyon nekrozunun bildirilen insidansı, hasta karakteristiklerinin heterojenliği ve çalışma popülasyonlarında radyasyon dozu maruziyetinin farklılığı nedeniyle büyük ölçüde değişmektedir. Serebral radyasyon nekrozunun insidansı RT modalitesi, toplam doz, fraksiyon büyüklüğü, beraberindeki intrakraniyal patoloji ve

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AKILDA TUTULACAKLAR

- Serebral radyasyon nekrozu, radyoterapinin tamamlanmasından sonra ortaya çıkan ağır bir lokal doku reaksiyonudur.
- Stereotaktik radyocerrahiye takiben radyasyon nekrozunun insidansı %4-18 olarak bildirilmektedir.
- Radyasyon nekrozunun öngörücü faktörleri toplam radyasyon dozu, fraksiyon dozu, kemo-terapi kullanımı, lokasyon ve histolojidir.
- Patofizyolojik mekanizmalar vasküler hasar, VEGF ve immün aracılı modelleri içerir.
- Tanıda en yaygın olarak kullanılan yöntemler FDG PET, T1 SPECT ve MRS'yi içermektedir.
- Tedavisi kortikosteroidler, bevacizumab, anti-koagülasyon, HBOT, cerrahi ve LITT yöntemle-ri içermektedir.

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