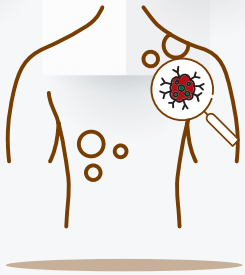

Bölüm 46
Kemik Tümörleri

Şükran ŞENYÜREK [1] *Eyüb Yaşar AKDEMİR* [2]

Giriş

Primer kemik tümörleri nadir görülmekte olup tüm kanserlerin %0.2'den daha azını oluşturmaktadır[1]. Çocuk ve adolesan yaş grubunda (20 yaş altı), osteosarkom (%56) ve Ewing's sarkom (%34) en sık görülen malign kemik tümörleridir. Yetişkinlerde ise en sık görülen malign histopatolojik tip kondrosarkoma(%40) olup bunu sırasıyla osteosarkom (%28), kordoma (%10), Ewing's sarkom (%8) ve undiferansiye pleomorfik sarkom(UPS)(%4) izlemektedir[2].

Benign kemik tümörleri en sık birinci ve ikinci dekadda gelişmekte olup histopatolojik olarak; enkondrom(%27,7), dev hücreli kemik tümörü (%21,5), osteokondrom (%14), osteoid osteom (%10,5), kondroblastom (%9) ve osteoblastoma (%5,7) olarak görülmektedir[2].

Osteosarkomun kadın ve erkeklerde görülme oranı benzer iken kondrosarkom, Ewing's sakomu, kordoma ve çoğu benign kemik tümörleri erkeklerde daha sık (2:1) görülmektedir.

Osteosarkom hızlı hücre çoğalmasının en çok olduğu yer olan distal tibia ve proksimal femurda yerleşmektedir. Kondrosarkomların çoğu, uzun kemiklerin medüller kanallarında de novo ortaya çıkar, ancak pelvik kemikler, skapula ve diğer yassı kemikler de yaygın hastalık bölgeleridir. Kordomalar en yaygın sakrum (% 50-% 60), kafa tabanı (% 25-% 35) ve omurga (% 15) olmak üzere ağırlıklı olarak aksiyel iskelette ortaya çıkar[3]. Dev hücreli kemik tümörleri en sık distal femur ve proksimal tibianın metaepifizyal bölgesinde görülmektedir[4].

Primer kemik tümörleri evrelendirmesinde T evresi hangi kemikte yerleşmiş olduğuna göre değiştirmektedir. Ayrıca tümörün histolojik gradı da evrelemede yerini almaktadır(Tablo 1)[5].

Bu bölümde malign kemik tümörlerinden; osteosarkom, kondrosarkom ve kordoma; benign kemik tümörlerinden ise lokal agresif seyredebilen dev hücreli kemik tümörü anlatılacaktır.

Osteosarkom

Osteosarkom nadir görülen bir kanser türü olsa da adolesan ve genç erişkinlerde en sık görülen primer kemik tümörüdür. İleri yaş hastalarda (>60 yaş) altta yatan nedenler genellikle Paget's hastalığı, kronik osteomiyelit ve fibröz dispila-

[1] Dr. Şükran Şenyürek, Koç Üniversitesi Tıp Fakültesi Radyasyon Onkolojisi AD., ssenyurek@kuh.ku.edu.tr
[2] Dr. Eyüb Yaşar Akdemir, Koç Üniversitesi Tıp Fakültesi Radyasyon Onkolojisi AD., eakdemir@kuh.ku.edu.tr

nu baskılamak için monoklonal RANKL antikoru olan Denosumab kullanılmaktadır [77, 78].

Denosumabın geniş cerrahi için uygun olmayan hastalarda preoperatif olarak kullanımı; ağrı kontrolunu arttırmakta, radyografik olarak %60-100 ve histopatolojik %80 yanıt elde edilmesini sağlamakta olup bunlara ek olarak sadece küretaj yapılan hastalara göre lokal nüksü azaltmaktadır(%9-10 vs % 35-45)[79-81]. Preoperatif kullanımdaki olumlu sonuçlara rağmen adjuvanda kullanımını destekleyen datası bulunmayıp kullanılmaması önerilmektedir[82].

Dev hücreli kemik tümöründe radyoterapi endikasyonları sınırlı olup cerrahi için uygun olmayan, denosumab ve interferona yanıtsız, progresif hastalıkta kullanılması önerilmektedir[45] (Tablo 5).

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Tablo 5: Kemik Tümörlerinde Endikasyon ve Hedef-Doz Önerileri

	Endikasyon	Hedaf Hacim Tanımı	Doz /Frakiyonasyon
OSTEOSARKOM	Unrezektabl R1-2	GTV: Rezidü tümöre 1cm marj ile CTV hacimi, tüm cerrahi yatak ve insizyon hattına 2 cm marj ile	CTV: 45-50Gy GTV: 64-70Gy
KORDOMA / KONDROSARKOM	Ekstrakraniyel: Preop Postop Unrezektabl Kafa tabanı: Unrezektabl R1-2	Ekstrakraniyel postop: **CTV1**:GTV+tümör yatağına 2cm **CTV2:** GTV +1-2cm Kafa tabanı: **CTV1**: Preoperatif GTV'ye 10-20mm marj verilip rezidü GTV ve cerrahi yatak **CTV2**: Rezidü GTV'ye 5-10mm marj	Preop: 19,8-50,4Gy Postoperatif cerrahi sınıra göre doz tamamlanabilir R1 : 70Gy R2:72-78Gy Definitif: :> 70Gy
DEV HÜCRELİ KEMİK TÜMÖRÜ	Unrezektabl Progresif Rekürren Hastalıkta	GTV'ye 3-4 cm marj ile CTV oluşturulur[83].	CTV: 55-60Gy

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