Bölüm
20

OSTEOSARKOMUN EPİDEMİYOLOJİSİ VE ETYOPATOGENEZİ

Harun KÜTAHYA[1]

GİRİŞ

Osteosarkom tüm primer sarkomlar içinde küçük oranda görülmesine rağmen kemiğin primer tümörleri içinde multiple myelomdan sonra en sık görülen habis kemik tümörüdür (1). Tedavi edilmediğinde ölümcül seyreden bu hastalıkta modern tedavi yöntemlerinin kullanımı, onkolojik yeni ilaçların bulunması, radyoterapi ve cerrahi tekniklerdeki gelişmeler sonucu %60-70 oranında 5 yıllık sağkalım sağlanmıştır (2). Bu gelişmeler 1990'lı yıllara kadar hızlı bir şekilde ilerleme gösterirken, 1990'lardan günümüze uzanan süreçte sağkalım oranlarındaki artış daha yavaş olarak devam etmektedir(3-5). Bu nedenle epidemiyolojik ve etyopatogenezin anlaşılmasına yönelik çalışmalar tedavi başarısının artırılmasına katkı sağlayabilir. Fakat osteosarkomun görülme sıklığının düşük olması ve yeterli vaka sayısının sağlanamaması nedeniyle epidemiyolojik ve etyopatogenez açısından çalışmaların yapılması önünde ciddi bir engel teşkil etmektedir.

EPİDEMİYOLOJİ

Osteosarkom göreceli olarak nadir görülen bir hastalıktır ve ortalama milyonda 5 oranında sıklıkta görülmektedir. Çocuklarda ve ergenlerde en sık görülen sekizinci kanser türüdür (6). Ve kansere bağlı çocuk ölümlerinde de %8,9'luk bir orana sahiptir (7). Bu nedenle önemli bir toplumsal sağlık problemidir. Amerikan veri tabanına göre primer habis kemik tümörlerinin yaklaşık olarak %55'ini oluşturmaktadır (8). Ülkemizde yapılmış olan geniş bir klinik çalışmada ise osteosarkom habis kemik tümörlerinin %33,6'sını oluşturduğu gösterilmiştir (9).

Osteosarkom nadiren beş yaş öncesinde görülmektedir ve yaşam boyunca bimodal bir dağılım göstermektedir. Görülme sıklığı ilk olarak çocuk ve ergenlik

[1] Dr. Öğretim Görevlisi, KTO Karatay Üniversitesi Medicana Tıp Fakültesi, drharunkutahya@yahoo.com.tr

Çevresel Faktörler

Birçok kanser türünde olduğu gibi çevresel faktörlerle ilgili çalışmalar osteosarkom için de yapılmıştır. Etyopatogenezde değerlendirilen tüm konularda olduğu gibi bu konuda da çalışmaları yapmak oldukça zordur. Çünkü osteosarkomun görülme sıklığı 4-15/milyon sıklığında yani oldukça nadirdir.

Radyasyon ve radyoaktif maddeler osteosarkom gelişimi açısından risk oluşturmaktadır (77-79). Radyasyonla ilgili olarak tedavi amacıyla terapötik dozlarda uygulanması sonucunda osteosarkom gelişimi bildirilmiş olup, röntgen ve bilgisayarlı tomografi esnasında verilen düşük radyasyon dozlarının osteosarkom gelişimi açısından risk oluşturmadığı gösterilmiştir (80). Çok uzun süre düşük dozlarda radyasyon maruziyetinin sebep olabileceği yapılan hayvan deneyleri sonrasında saptanmıştır (81).

Berilyum oksit, berilyum silikat, metilkolantren ve krom tuzları gibi kimyasal bazı ajanların maruziyetine bağlı olarak osteosarkom gelişimi gösterilmiştir (82-84).

Viral enfeksiyonlar halen onkojenik etkileri açısından araştırılmakta olup FBJ virüsü ile yapılan hayvan deneyi çalışmalarında osteosarkom gelişimi gözlenmiştir (85).

SONUÇ

Son 3 dekat boyunca yapılan çalışmalar sonucunda sağkalım oranlarında ciddi bir düzelme saptanmamış olup çoklu kemoterapiye erken tanı ve tedaviye rağmen %1'lik düzeylerde bir iyileşme görülmüştür. Özellikle genetik düzeydeki etyopatogenez çalışmaları, kemoterapi ajanlarına gelişen direnci yoketmede hedef moleküller üzerinden etki mekanizmasını oluşturarak hücre proliferasyonu, apopitozis, adezyon invazyon ve vaskülerizasyon ve metastaz aşamaları üzerine moleküler etki oluşturmayı hedeflemektedir.

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