Bölüm 4

TİROİD KANSERLERİNDE METABOLİK VE GENETİK DEĞİŞİKLİKLER

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GİRİŞ

Tiroid Kanseri (TK) esas olarak, dağınık nöro-endokrin sisteme ait olan medüller tiroid karsinomu (MTK)'na yol açan parafoliküler hücrelerden (C hücreleri) ve papiller tiroid karsinomu (PTK), foliküler tiroid karsinomu (FTK), onkositik tiroid karsinomu (OTK), yüksek dereceli nonanaplastik karsinom veya anaplastik tiroid karsinomu (ATK) ile sonuçlanan foliküler epitel hücrelerden kaynaklanan tümörleri içerir (1). PTK ve FTK en yaygın histolojik tiplerdir (2). PTK, FTK ve OTK'ya topluca diferansiye tiroid karsinomu (DTK) adı verilir (3). Çünkü tümör hücreleri normal tirositlerin bazı özelliklerini, özellikle tirotropin (TSH) uyarısına yanıt verme ve iyot emme ve depolama yeteneğini hatırlar (2). PTK yetişkinlerde tiroid kanserinin yaklaşık %80-85'ini ve pediatrik popülasyonda %90'ını oluşturur (4).

TK'da meydana gelen dönüşüm, esas olarak hücre proliferasyonu ve apoptozda rol oynayan molekülleri kodlayan genlerdeki mutasyonlardan kaynaklanır ve bu da agresifliği de-diferansiyasyonu ve tedaviye yanıtın azalmasını veya hiç olmamasını tetikler (5). En yaygın genetik modifikasyonlar, BRAF, RAS, TERT, RET, TP53 genlerinde ve RET/PTC gen füzyonunda, TK'nın farklı histotiplerinde çeşitli dağılımlarla meydana gelir (6). WHO (2022) tiroid tümörleri sınıflandırması, neoplaztik lezyonları moleküler bir perspektiften karakterize etmeye daha fazla ilgi göstermektedir. Histolojik ve moleküler terminoloji, iyi bilinen genetik değişikliklerle ilgili herhangi bir spesifik mikroskobik morfoloji için kullanılır (1).

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SONUÇ

TK, tiroid bezinden kaynaklanan kötü huylu bir neoplazmdır ve son yıllarda dünya çapında artan görülme sıklığı nedeniyle giderek daha fazla ilgi görmektedir. TK'nin etiyolojisi karmaşıktır ve gelişimine çeşitli faktörler katkıda bulunmaktadır. TK oluşumunda yer alan tüm mekanizmalar, birbirlerinden bağımsız olmayıp birbirleri ile ilişkili bir şekilde TK gelişiminde rol oynarlar. TC, artan glikoliz ve inhibe edilmiş trikarboksilik asit döngüsü, artmış onkojenik amino asitler ve anormal kolin ve lipid metabolizması ile karakterize edilmiştir. Bu metabolik bozuklukların anlaşılması, erken teşhisi, tanı yollarını ve prognozu iyileştirebilir. Genel olarak, FA metabolizması, obezite ve inflamasyon arasındaki karmaşık etkileşim üzerine yapılan araştırmalar, TK için tedavi stratejilerini ilerletme potansiyeline sahiptir.

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