

## Bölüm 7

# TİROİD ORGAN PATOLOJİSİNDE TANISAL YENİLİKLER VE MOLEKÜLER GELİŞMELER

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### GİRİŞ

2017 yılında güncellenen endokrin organ tümörlerinin Dünya Sağlık Örgütü (DSÖ) sınıflamasında tiroid organ patolojisinde birçok tanısal güncellemeler yer almış, tümörlerin biyolojik davranışları ile ilişkili moleküler belirteçler tanımlanmıştır. Özellikle Papiller benzeri nükleer özellikler gösteren non-invaziv folliküler tiroid neoplazmi (NIFT-P) ve malignite potansiyeli belirsiz tümörler grubunu içeren borderline kategorinin tanımı patoloji pratiğini önemli ölçüde etkilemektedir.

DSÖ'nün son sınıflaması ile tiroidin follikül hücre kökenli tümörlerinde önemli değişiklikler yapılmıştır ve bu değişikliklerin başlıcaları şunlardır;

1. Tiroid tümörleri sınıflamasına Hyalinize trabeküler tümör ve borderline tümörler ilk kez dahil edilmiştir.
2. Papiller tiroid karsinomunun yeni varyantları tanımlanmış, eski sınıflamada yer alan bazı varyantları dışlanmıştır.
3. Folliküler tiroid karsinomu üç prognostik kategoriye ayrılmıştır.
4. Az diferansiye karsinomlarda tanı kriterleri daha net olarak belirlenmiş ve Turin konsensus kriterleri kabul edilmiştir.
5. Diğer tiroid tümörlerinden farklı genetik ve klinik özelliklere sahip yeni Hürthle hücreli tümörler grubu oluşturulmuştur.
6. Follikül hücre kökenli tiroid kanserlerinde BRAFV600E ve TERT mutasyonu gibi genetik belirteçlerin prognostik önemi vurgulanmıştır (1).

DSÖ 2017 tiroid bezi tümörleri sınıflaması Tablo 1'de gösterilmiştir.

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özelliği bilateral C hücre hiperplazi- neoplazi sekansına sahip olmalarıdır (1, 65). 1 cm'den küçük tümörler medüller mikrokarsinom olarak adlandırılır. Medüller karsinomlar tüm tiroid kanserlerini taklit edebilecek histolojik görünüme sahip olabilirler (1).

## **MEDÜLLER TİROİD KARSİNOMU DSÖ-2017 DEĞİŞİKLİKLERİ**

DSÖ'nün yeni sınıflamasında papiller, psödopapiller, folliküler, iğsi hücreli, dev hücreli, berrak hücreli, onkositik, melanotik, skuamöz, amfikrin, paraganglioma benzeri, anjiosarkom benzeri, enkapsüle ve küçük hücreli varyantları tanımlanmıştır fakat bu varyantların prognostik önemi yoktur. Ayrıca yeni sınıflamada C hücre haritalamasının önemi özellikle belirtilmiştir (1).

## **MEDÜLLER TİROİD KARSİNOMU MOLEKÜLER ÖZELLİKLERİ**

Hereditör formlar RET proto-onkogenindeki germline mutasyon sonucu ortaya çıkar ve otozomal dominant geçiş gösterir (MEN2A, MEN2B). MEN2B ve sporadik olgularda görülen RET M918T mutasyonu kötü prognozla ilişkilidir (1). Sporadik olgularda somatik RET mutasyonu, daha az oranda da RAS mutasyonu saptanabilir (66, 67).

## **SONUÇ**

Tiroid kanserlerinin patogeneğinde hem genetik, hem de çevresel faktörler etkilidir. Birçok kanserde olduğu gibi tiroid karsinomlarının gelişiminde de farklı bazı moleküler yolaklar tespit edilmiştir. Tümörlerin klinik, patolojik ve moleküler biyolojik özelliklerinde tespit edilen yeni gelişmeler tanı kategorilerinin değişmesinde etkili olmuştur ve son olarak 2017 yılında güncellenen DSÖ sınıflamasında önemli değişikliklere yer verilmiştir. Bu derlemede sık karşılaşılan tiroid bezi tümörlerine ait tanı kriterlerindeki güncellemeler, tanımlanan yeni neoplaziler ve tümörlerin biyolojik davranışları ile ilişkili moleküler belirteçler vurgulanmaya çalışılmıştır. Gelişen moleküler çalışmalarla tümörlerin patogeneğinin daha net aydınlanacağını ve ilerleyen dönemlerde tiroid tümörlerinin tanısında, tedavi rejimlerinin belirlenmesinde, prognoz tayininde moleküler biyobelirteçlerin daha yaygın olarak kullanılacağını düşünmekteyiz.

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