BÖLÜM
23

TİROİD BEZİ HASTALIKLARINDA GİRİŞİMSEL RADYOLOJİK İŞLEMLER

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Son 20 yılda girişimsel radyolojideki gerek teknik gelişmeler gerek kullanılan malzemelerdeki gelişmeler tiroid gland hastalıklarının tedavisinde de girişimsel radyolojinin önemli bir rol oynamasına yol açmıştır.

Kitabın bu bölümünde tiroid hastalıklarında girişimsel radyoloji ve minimal invaziv yöntemlerin perspektifinde, güncel literatür bilgileri verilecektir.

TİROİD NODÜLLERİNDE MİNİMAL İNVAZİV PROSEDÜRLER

Giriş

Tiroid nodülleri yetişkin popülasyonda %20 -76 oranında prevelansa sahiptir (1, 2). Özellikle son dönemlerde artan tiroid ultrasonografi (USG) kullanımı ile tiroid nodüllerinin insidansı giderek artmıştır (1, 2). Çoğu tiroid nodülü iyi huyludur ve tedavi gerektirmezler. Ancak, bazı iyi huylu nodüller, ilişkili semptomlar ve/veya kozmetik sorunlar nedeniyle tedavi gerektirebilir (2, 3). Küratif cerrahinin dezavantajları olduğundan ve tiroid hormon baskılayıcı tedavinin etkinliği henüz belirlenemediğinden, perkütan etanol ablasyonu (PEA), perkütan lazer ablasyonu ve radyofrekans (RF) ablasyonu gibi cerrahi olmayan, minimal invaziv tedavi prosedüleri kullanılmıştır (2). USG eşliğinde minimal invaziv ablasyon tedavisinin geleneksel cerrahiye göre avantajları arasında, daha az invaziv olması, daha kısa tedavi süresi, daha düşük tedavi maliyeti bulunmaktadır. Sonuç olarak, USG rehberliğinde minimal invaziv ablasyon tedavileri klinik olarak dikkate değerdir (4).

PERKÜTAN ETANOL ABLASYONU (PEA):

Tanım ve Endikasyonlar

PEA, etanolün doku içerisine girmesiyle oluşan minimal invaziv tekniktir. Enflamatuar reaksiyonla ilişkili, küçük damarların trombozu sonucu ortaya çıkan koagülasyon nekrozu ve ardından gelişen fibrozis nedeniyle tedavi edilen lezyonun boyutunda azalmayla sonuçlanır (5-7). Yeni klavuzlara göre PEA, nükseden ve semptomatik olan benign kistik lezyonlar ve önemli oranda sıvı komponent içeren nodüller için ilk

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Literatürde STAE'nin hiperfonksiyone büyük multinodüler guatrlarda (80), planjuan guatrlarda (81, 82), operasyon öncesi tiroid kanlanmasının azaltılmasında ve ötiroidizm sağlanması amaçlı uygulandığı ve işlem sonrası operasyon süresi ile perioperatif komplikasyonları azalttığı vurgulayan çalışmalar yayınlanmıştır (83). Bunların dışında, undiferansiye ve anaplastik tiroid karsinomu olan hastalarda preoperatif uygulanan STAE'nin cerrahi başarıyı arttırdığı ve riski azalttığı, ek olarak inoperable kabul edilen olgularda ağrı palyasyonu sağladığı ve trakea-özafageal kompresyonu azalttığı bildirilmiştir (84). Benzer başka bir çalışmada, büyük papiller tiroid karsinomunda preoperatif STAE, cerrahi esnasında kanamayı azaltmak, tümörün çıkarılmasını kolaylaştırmak veya cerrahi komplikasyonları azaltmak için kullanılabileceği raporlanmıştır (85). Sonuç olarak, tiroid arter embolizasyonu, kalsiyum-fosfat dengesinde kalıcı değişikliklere yol açmadan, tiroid otoimmün süreçleri pozitif anlamda modüle ederek ve işlem sonrası ciddi yan etki olmaksızın kullanılabilen seçilmiş tiroid hastalıkları için güvenli ve etkili bir tedavi yöntemidir (86).

STAE Teknik ve Komplikasyonları

Hasta anjiografi masasına alınır ve sırtüstü yatırılır. Genellikle prosedür bir saatten az sürer. USG eşliğinde sağ veya sol femoral arterde ponksiyon bölgesi seçilir. Lokal anestezi altında küçük bir cilt insizyonu yapılır. Prosedür Seldinger'in tekniği kullanılarak gerçekleştilir (87). Daha sonra 5F anjiografi kateterleri kullanılarak aorta yoluyla bilateral eksternal karotid arter ve subklavian arterlere ilerlenir. Ardından koaksiyel sisteme dönülerek uygun (tercihen 2F) mikrokateter yardımıyla ardışık olarak hem superior hem inferior tiroid arterlerden kontrast madde enjeksiyonu yapılarak görüntüler alınır. İşlemlerin tamamı DSA ile eş zamanlı takip edilir. Bu işlemde parotiroid bezin kan akışını bozmamak esastır. Bu nedenle en az bir tiroid arteri koruyarak, bir ila üç tiroid arterin embolize edilmesi sağlanır (68). Bilateral superior tiroid arterleri hastaların çoğunda tiroid bezi kanlanmasının yaklaşık %70'ini oluşturur. Alınan anjiogramlar, patolojik tiroid kan kaynağını değerlendirmemize yardımcı olur (71). Farklı embolizan ajanlar kullanılabilir. Bunlar boyutları, 150-750 μm arasında değişen polivinil alkol partikülleri (PVA) ve koiller (83), histoakril ile lipiodol karışımı (86) veya jelatin sünger partikülleridir (85).

STAE'den hastalarda ateş (%22), ağrı (%30), geçici ses kısıklığı (%10), taşikardi (%6), diş ağrısı (%5), periyodik paralizi (%2), geçici hipokalsemi (%1) ve geçici hipotiroidizm (%1) bildirilmiştir (88). STAE'nin graves hastalığında kullanılmasıyla ilgili bildirilen en ciddi komplikasyon sol retinal arter superiotemporal dalda işlem sırasında gelişen oklüzyon olmuştur (89). Başka bir olguda Graves oftalmopatisinin progrese olduğu bildirilmiştir (90). Bugüne kadar literatürde STAE sonrası kalıcı hipokalsemi ve kalıcı hipotiroidizm raporlanmamıştır.

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