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BÖLÜM

PULMONER TROMBOEMBOLİ VE SAĞ KALP YETERSİZLİĞİ

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EPİDEMİYOLOJİ, RİSK FAKTÖRLERİ

Pulmoner tromboemboli (PTE), yüksek mortaliteye sahip olan ve sık karşılaşılan akut kardiyovasküler sendrom olup venöz tromboembolizmin (VTE) klinik formlarından biridir. VTE'nin yıllık ortalama insidansı 23-269/100.000 arasındadır [1]. Akut PTE'de ölüm riski, başlangıçtaki hemodinamik instabilite ve klinik şiddetine göre hastaların %30'undan fazlasındadır. VTE çoğunlukla ileri yaş hastalığıdır. Yapılan çalışmalarda, ortalama yaş 50 ve üzerindedir. Yaş arttıkça VTE riski de artmaktadır [1-3]. PTE vakalarının çoğu (%80-%95) alt ekstremite kaynaklı trombüsün (derin ven trombozu (DVT)) bir sonucu olarak ortaya çıkar.

Rudolf Virchow tarafından 19. yüzyılın ortalarında Wirchow triadı; venöz staz, hiperkoagülabilite ve damar endotel hasarı olarak belirlenmiştir. Venöz tromboembolizm hastalarının birçoğunda tanımlanan bu faktörlerden birine sebep olan kazanılmış ya da genetik etkenler tespit edilmiştir. [1,4]. En sık görülen risk faktörleri; önceden geçirilmiş VTE öyküsü, aktif kanser, majör travma, cerrahi, yakın tarihte hastane yatışı, immobilizasyon, obezite ve eşlik eden kalp hastalıklarıdır [1,5-7]. Tablo 1'de PTE için risk faktörleri belirtilmiştir.

PATOFİZYOLOJİ

Pulmoner tromboembolide oluşan trombüslerin çoğunluğu (yaklaşık %75'i) alt ekstremitenin derin verinlerinden meydana gelmektedir [8]. Sistemik dolaşımdaki trombüslerin pulmoner damarlara göçü ile PTE oluşur. Günümüzde de DVT patofizyolojisinde, Virchow triadının komponentlerinden olan koagülabilitede artış, damar yapısının bozulması ve staz önemli yer tutmaktadır.

Pulmoner tromboembolide gelişen sağ kalp yetersizliğinin mekanizmasını anlayabilmek için öncelikle pulmoner tromboembolinin patofizyolojisini anlamak gerekmektedir. PTE hem vasküler dolaşımı hem de ventilasyonu etkileyen ölüm riski yüksek bir hastalıktır. Hasara uğrayan bölgede doku faktörü meydana gelir. Bunun

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füzyon defektinin olmasına karşılık ventilasyon defektinin yokluğu tanı için önemlidir. Tomografide; mozaik atenüasyon, genişlemiş pulmoner arterler, farklı boyutlarda segmental pulmoner arter dalları, mediastinal kollateral damarlar, halka tarzında stenozlar, ağsı yapılar, total tıkanıklık ve organize pıhtı görülebilir [101]. EKO'da pulmoner arter basıncı yüksek olan ve kronik tromboembolik hastalık şüphesi olan hastalarda, sağ kalp kateterizasyonu yapılmalıdır. Bu tetkik ile pulmoner hipertansiyon tanısı netleştirilir ve hemodinamik değerler- pulmoner arter basıncı, pulmoner vasküler direnç, kardiyak indeks- değerlendirilmelidir. 3 ay boyunca antikoagülan tedavi alan, kronik tromboembolik hastalık şüphesi olan bir hastada yapılan ventilasyon/perfüzyon sintigrafisinde perfüzyon defektleri saptanması, tomografide ya da pulmoner anjiografide kronik pıhtı bulguları olması sonucu yapılan sağ kalp kateterizasyonunda ortalama PAB ≥25 mmHg, PVR ≥3 Wood Ünitesi ve PKUB ≤ 15 mmHg ise KTEPH tanısı netleştirilir [94]. KTEPH, ölüm riski yüksek olan vasküler bir hastalıktır [100]. Artan pulmoner arter basıncına sekonder sağ kalp yetmezliği bu grup hastalarda mortalite ve morbitiditein en önemli nedenidir [102]. Kronik tromboembolik pulmoner hipertansiyon hastalığına sahip olan hastalar kesinlikle multidisipliner ekip ile değerlendirilmelidir. Bu ekipte göğüs hastalıkları uzmanı, kardiyolog, radyolog ve cerrah olmalıdır. KTEPH de tedavi, medikal tedavi, pulmoner endarterektomi (PEA), balon pulmoner anjiyoplasti (BPA) ile yapılabilir.

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