BÖLÜM 109

KRONİK KARACİĞER HASTALIKLARININ SİSTEMİK BULGULARI

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SİROTİK KARDİYOMYOPATİ

Sirotik hastalarda sistemik vasküler direncin (SVR) azalması, arteriyel vazodilatasyonu artırır ve bu da hemodinamik değişikliklere neden olur. Bu değişiklikler kalp hızı ve kardiyak outputu artırarak hiperdinamik dolaşıma yol açar (1). Sirotik hastalarda hipertansiyon, iskemik kalp hastalığı, anemi, aşırı alkol tüketimi gibi kardiyak disfonksiyona yol açacak veya katkıda bulunacak eşlik eden sebepler sıktır. Sirotik kardiyomiyopati terimi bilinen kardiyak hastalık öyküsü bulunmayan hastada oluşan kardiyak disfonksiyon olarak tanımlanır (2). Sirotik kardiyomiyopatinin prevelansı henüz net değildir; ancak genellikle latent olduğu ve hastalar stres altındayken ortaya çıkma eğiliminde olduğu için şu anda yeterince teşhis edilmediğine inanılmaktadır (3). Sırasıyla 122 ve 104 sirotik hasta ile yapılan çalışmalarda %60 ve %50 civarında görülme sıklığı saptanmıştır (4, 5).

Patogenez

Patogenezde farklı selüler ve nörohumoral yollar, bozulmuş beta reseptör sinyali, sempatik sistem aktivasyonu, nitrit oksit (NO) endokannoboid gibi vazoaktif substansların aktivasyonu rol oynar. Total kan hacmindeki artış, splanknik alanda birikime bağlı dolaşan hacimde azalma, azalmış sistemik vasküler rezistans, artmış kardiyak output sirozda hiperdinamik dolaşıma yol açar. Azalmış efektif arteriyel volüm santral baroreseptörleri, sempatik sistemi, renin-anjiotensin-aldesteron, arjinin-vasopressin aksının aktivasyona neden olarak kalp hızı ve pre-loadı arttırır (6). Bu hiperdinamik durum normal-artmış kardiak output ile hastalığın seyrinde semptom ve bulguları maskeleyebilir. Beta-adrenerjik yanıt, kalp kası kasılmasında ve kronotropisinde önemli rol oynar. Sirotik hastalarda uzun süreli vazodilatasyon, sürekli sempatik uyarı beta adrenerjik reseptörlerin desensitizasyonu ve disfonksiyonuna yol açar (7). NO hiperdinamik dolaşım etyolojisinde anahtar humoral mediyatördür. Artan endotoksin, sitokinler ve artmış geçici bakteriyemiye yanıt olarak NO seviyelerini yükseltir. İndüklenebilir NO sentaz ventrikül kontraktilitesini bozar (8). Miyokardiyal endokannobinoid üretimi, artan kalp hızı ve hemodinamik aşırı yüklenmeye yanıt olarak artabilir. Yapılan hayvan deneylerinde endokannobinoidlerin negatif inotropik etki, hipotansiyon, azalmış ve bozulmuş kardiyak kontraktiliteye yol açtığı gösterilmiştir (9). Patogenezde rol oynayan mekanizmalardan birisi de özellikle kalsiyum iyon

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tazobaktam iken komplikasyonsuz idrar yolu enfeksiyonlarında oral kinolonlar veya trimetoprim sülfametoksazolü içerir. Norfilaksisin profilaksisi kullananlarda kinolonlar ilk tercih olarak önerilmez (88).

Pnömoni gelişimi, toplum kökenli pnömoninin daha şiddetli bir formuyla ilişkilidir. Bakteriyemi, multilober tutulum, bilinç bozukluğu, böbrek yetmezliği ve septik şoka sebep olabilir (89). Sirozlu hastalarda toplum kökenli pnömoniler için en yaygın patojen non-sirotik hastalarda olduğu gibi *Streptococcus pneumoniae*'dir. Hastane kaynaklı pnömonilerde baskın patojenler gram negatif basiller ve stafilokoklardır. Bu etkenlerde yüksek ölüm oranıyla ilişkilidir (89,90,91). Hastane kaynaklı pnömonisi olan sirozda ampirik antibiyotik kullanımı, intravenöz anti-psödomonal sefalosporin veya karbapenem ile florokinolon ve/veya MRSA organizmaları için yüksek riskli hastalarda glikopeptidden oluşur.

Selülitin en yaygın nedensel organizmaları gram pozitif bakterilerdir (grup A *streptokoklar* ve *Staphylococcus aureus*) ancak gram negatif organizmalar (*E. coli, Klebsiella* türleri, *P. aeruginosa*, *Aeromonas* türleri, *Vibrio* türleri dahil) da sirozu olanlarda sıklıkla rapor edilir (92). Üçüncü nesil sefalosporinler ile oksasilin veya piperasilin-tazobaktam kombinasyonu gibi geniş spektrumlu antibiyotikler derhal başlanmalıdır.

Mantar enfeksiyonları, özellikle yoğun bakım ünitelerinde yatan veya alkolik hepatitli hastalarda, sirozlu hastalarda tedavi başarısızlığının bir başka nedeni olabilir (93,94). Çoğu mantar enfeksiyonu *Candida* türlerinden kaynaklanmaktadır, çoğu *Candida* türleri amfoterisin B, flukonazol ve vorikonazole duyarlıdır.

Kronik karaciğer hastalığı olan hastalarda influenza, pnömokok aşılarının yapılması önerilir. Sirozlu hastalarda canlı zayıflatılmış aşılardan ziyade inaktif veya öldürülmüş tip aşılar daha çok tercih edilir (95).

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