BÖLÜM 121

PANKREAS EKZOKRİN YETMEZLİĞİ

Burcu BOZKURT BURGUCU [1] - Yasemin GÖKDEN [2]

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GİRİŞ

Ekzokrin pankreas yetmezliği (PEY), pankreas enzimlerinin salgılanmasında veya intraluminal aktivitesinde, besinlerin normal sindirimine izin vermeyecek düzeyde azalması olarak tanımlanabilir (1). PEYsemptomları sıklıkla hafife alınan, bir dereceye kadar göz ardı edilebilen nonspesifik semptomlar olduğundan tanısı ve tedavisi zordur. Yetmezliği hafif olan hastalarda karında huzursuzluk hissi, gaz ve şişkinlik gibi semptomlar görülürken, ciddi PEY'i olan hastalar karın ağrısı, steatore, malnutrisyon, vitamin eksiklikleri, kemik mineralizasyonunda bozulma ve nihayetinde hastanın yaşam kalitesini önemli ölçüde bozan klinik bulgular ile başvururlar (2,3). Ayrıca PEY'in en sık nedenlerinden biri olan kronik pankreatit (KP)'li hastalarda PEY varlığı artmış mortalite riski ile de ilişkilidir (4). Erken dönemde doğru koyulmuş PEY tanısı ve tedavisi ile hastaların hayat kalitesinin önemli ölçüde artırılması hedeflenmektedir.

PEY'de kullanılan tanı testleri hastalığa özgü yüksek doğruluğu olan tanı testleri olmadığı gibi uygulanabilirliği de zor ve hantaldır. Tanıda kullanılan bu testler sindirim bozukluğunun varlığını belgelemeye veya pankreas enzimlerinin doğrudan veya dolaylı olarak ölçülmesine yönelik testlerdir. Erişkinlerde PEY'in en sık nedeni işlevsel pankreas parankim kaybı ve azalmış sekresyona neden olan KP, çocuklarda ise kistik fibrözdür (5). Diğer etiyolojiler arasında akut pankreatit (AP), pankreas tümörleri, diabetes mellitus (DM), çölyak hastalığı, inflamatuar bağırsak hastalığı (İBH), gastrointestinal ve pankreas cerrahisi, HIV, genetik ve konjenital nedenler sayılabilir (5-15).

PANKREAS SİNDİRİM FİZYOLOJİSİ

Pankreas salgısı; kanal hücreleri tarafından salgılanan %97 oranında su ve elektrolitler ile %3 oranında asiner hücreler tarafından salgılanan proteazlar (%80), amilaz (%7), lipaz (%4) ve nükleazlar (%1) gibi proteinlerden oluşan berrak bir sıvıdır (16,17). Besinlerin normal emilimi, sindirim enzimleri ve safra tuzlarının karmaşık bir karışımı ve hidrofobik komplekslerin alınmasını sağlayan sağlam bir bağırsak mukozası gerektirir. Pankreastan yağların, nişastanın ve proteinin sindirimi için her gün yaklaşık 1,5 litre enzim açısından zengin alkali bir sıvı salgılanır (10). Bu sıvının bileşimi bazal ve uyarılmış fazlarda farklılık gösterir. Açlık durumunda, pankreas sıvısı protein açısından zengin olup 80 mEq/L bikarbonat konsantrasyonuna sahiptir. Yemekten sonra pankreasın uyarılması,

[1] Uzm. Dr., Bursa Çekirge Devlet Hastanesi, aburcuburcuburcu@hotmail.com, ORCID iD: 0000-0002-8609-6917
[2] Doç. Dr., SBÜ, Prof. Dr. Cemil Taşçıoğlu Şehir Hastanesi, Gastroenteroloji Kliniği, yasemingokden@hotmail.com, ORCID iD: 0000-0001-6767-3072

si, alkol ve tütünden kaçınılması dikkate alınarak düzenlenmelidir (38).

İZLEM

PEY'de metabolik kemik hastalığının yaygın görüldüğü göz önüne alındığında, kemik yoğunluğunun değerlendirmesi amacıyla kemik dansitometrisi; DEXA (Dual-Energy X-ray Absorptiometry) tanı anında yapılmalı ve her 1-2 yılda bir tekrarlanmalıdır. Osteopeni veya osteoporoz bulgusu varsa; uygun kalsiyum ve D vitamini alımı, düzenli egzersizler önerilmeli, sigara ve alkol kullanımı varsa; bırakma konusunda hastalar gereğinde uzmanlarca desteklenmelidir (46). Beslenme durumunun izlenmesi, yetersiz beslenmeyle ilişkili diğer tüm durumlarda olduğu gibi PEY'li hastalarda da önemlidir. Antropomorfik değerlendirme (boy, kilo, vücut kitle indeksi, el kavrama gücü, kas kütlesi ölçümü) ve takibi önerilmektedir. PEY'li hastalar obez olabilir ama yine de sarkopeni görülebilir. Buna dikat edilmeli ve L3 seviyesinde psoas kas boyutu gibi farklı kas kitlesini ve fonksiyonları değerlendiren testlerde uygulanabilir. Stabil hastalarda, yağda çözünen vitaminlerin (Vitamin A, D, E, K), B12, folat, tiamin, selenyum, çinko, magnezyumun ve yetersiz beslenmenin serum belirteçlerinin (örn; prealbumin ve retinol bağlayıcı protein) yıllık ölçülmesi önerilmektedir. Ayrıca HBA1c seviyeleriyle diyabet için düzenli takip yapılması da son derece önemlidir. C-reaktif protein (veya C-reaktif protein/albümin oranı) gibi inflamatuar belirteçler, kronik düşük dereceli inflamasyonu ve katabolik bir durumu yansıtmakta olup izlemde önerilen belirteçlerdendir. Takip sıklığı, tedavinin başlatılma zamanlamasına ve hastanın durumunun dinamiklerine bağlıdır. Stabil hastalarda pankreasın durumu ve tedavi etkinliği en az yılda bir kez değerlendirilmelidir (38).

PERT 'in Gebelik ve Emzirme Döneminde Kullanımı

Gebelikte veya emzirme döneminde PERT kullanımına ilişkin literatürde randomize kontrollü çalışmalar yoktur. Sadece gebelikte başarılı kullanım deneyimlerinin anlatıldığı yazar önerileri vardır. Ancak malabsorpsiyon gebelikte önlenmelidir. Esansiyel yağ asitleri, gebeliğin ilk 8 haftasında fetüs beyin ve retina gelişimi için gerekli olduğu ve bu nedenle gebelikte yeterli PERT'nin sağlanması ve sürdürülmesinin önemli olduğu bildirilmektedir (46).

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