BÖLÜM 37

GERİATRİK HASTALARDA ENDOSKOPİK ULTRASONOGRAFİ (EUS)

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GİRİŞ

Ultrasonun çalışma prensibi 20.000 Hz' den daha yüksek frekansa sahip ses dalgalarının doku içerisine kısa darbeler halinde iletilmesi ve dokudan yansıyan sinyallerin alınmasına dayanır. Ses dalgasının dokuyla etkileşime girmesi yansıma, kırılma, saçılma ve absorbsiyonla sonuçlanır. Transdüsere geri dönen sinyaller ultrason dalgasının dokularla etkileşimini yansıtır (1).

Endoskopik ultrasonografi (EUS) endoskopik görünümü ultrason ile birleştirerek incelenen organın duvarının ve komşuluk ettiği organ ve damarların görüntülenmesini sağlar(2). Genellikle bilinçli sedasyon altında yapılan, uygulanan işleme göre 30 ila 60 dk arasında süren bir prosedürdür. Üst gastrointestinal EUS ekoendoskopun hastanın ağzından geçirilerek özofagus, mide ve duodenuma ulaşılmasıyla, alt gastrointestinal EUS ise anal kanaldan geçilerek rektum ve sol kolona ulaşılmasıyla transdüsere komşu alanlardan eş zamanlı görüntüler elde edilmesiyle olur. Mediastinal yapılar, retroperitoneal lenf nodları, özofagus, mide, pankreas, safra yolları, safra kesesi, adrenal bezler, aort, çölyak trunkus, mezenterik arteriovenöz yapılar, portal ven, vena cava inferior, böbrekler, karaciğer, dalak, rektum, anal kanal, iliak damarlar, lenf nodları, prostat, reproduktif yapılar kolaylıkla görüntülenebilir, ultrason frekansının ayarlanmasıyla endoskopa bitişik alanlarda mukozal katmanlar ayrıntılı olarak değerlendirilebilir(3).

Ekoendoskop yaklaşık 13 mm çapındaki esnek bir endoskopun ucuna ultrason transdüseri yerleştirilmesiyle oluşur. Radyal ve lineer olmak üzere iki ekoendoskop türü mevcuttur. Radyal ultrason endoskopu şafta dik bir görüntü alarak kesitsel görüntü elde ederken, lineer ultrason endoskopu şafta paralel bir görüntü alarak 180° ila 270° arasında bir görüntü elde eder. Lineer ultrason endoskopu, çalışma kanalından çıkan enstrümanın gidiş yolunu görselleştirmeye izin vermesi nedeniyle EUS kılavuzluğunda ince iğne aspirasyonu (EUS-FNA) ve biyopsisi (EUS-FNB) başta olmak üzere doku örneklemesi ile ostomiler ve vasküler girişimleri de içeren terapötik işlemler için kullanılır. Rutin bir endoskopun çalışma kanalından ilerletilerek kullanılan mini problar gastrointestinal lümendeki bir lezyonu tanımlamada, tümör evrelemesinde kullanılabilir, ancak örnekleme için kullanılamaz(3).

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