



# GÖRÜNTÜLEME TEKNİKLERİNDE YAPAY ZEKA: ACİL SERVİSTE DİREKT GRAFİLER

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## GİRİŞ

Acil servisler, sağlık sisteminin en yoğun ve en karmaşık birimleri arasında yer alır. Yüksek hasta sirkülasyonu, hızlı karar verme zorunluluğu ve multidisipliner ekip çalışmasının ön planda olduğu bu birimlerde, zaman kritik bir faktördür (1). Bu nedenle, tanı ve tedavi süreçlerinin etkin ve hızlı yürütülebilmesi için kullanılan her araç ve yöntem, doğrudan hasta sonuçlarını etkileyebilmektedir. Bu bağlamda radyolojik görüntüleme, özellikle de direkt grafiler, acil tıp uygulamalarında tanısal sürecin temel yapı taşlarından birini oluşturur (2).

Direkt grafiler; düşük maliyetli, hızlı elde edilebilen, yaygın erişilebilir ve çok çeşitli patolojilerin ilk değerlendirmesinde kullanılabilen bir görüntüleme yöntemidir (3). Travmatik yaralanmalardan solunum sistemi hastalıklarına, abdominal patolojilerden kardiyovasküler ve enfeksiyöz durumlara kadar geniş bir spektrumda tanısal bilgi sağlar (4). Bununla birlikte, bu görüntülerin yorumlanması yüksek derecede uzmanlık, dikkat ve deneyim gerektirir. Yorgunluk, aşırı iş

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rak belirgin bir şekilde ortaya çıkmaktadır. Tanısal doğruluğu artırma, iş akışlarını optimize etme ve potansiyel olarak hayat kurtarıcı kritik patolojileri daha hızlı tespit etme potansiyeli, hasta bakım kalitesini önemli ölçüde iyileştirebilir. Ancak, bu teknolojinin tam potansiyeline ulaşabilmesi ve yaygın klinik benimsemeyi sağlayabilmesi için veri kalitesi ve çeşitliliği, genellenebilirlik, “kara kutu” sorunu gibi teknik zorlukların yanı sıra hukuki, etik ve insan-YZ iş birliği gibi karmaşık sorunların da aşılması gerekmektedir.

Gelecekte, YZ sistemleri, hekimlerin yerini almak yerine, onların klinik yeteneklerini tamamlayan, rutin görevleri otomatikleştiren ve karar alma süreçlerini destekleyen güçlü bir araç olarak hizmet edecektir. Bu entegrasyon, acil servis pratiğinde yeni bir çağın başlangıcını işaret etmektedir, burada teknoloji ve insan uzmanlığı birlikte çalışarak hasta sonuçlarını en üst düzeye çıkaracaktır. Yapay zekanın sağladığı bu sinerji, daha hızlı, daha doğru ve daha erişilebilir acil tıp hizmetleri sunarak nihayetinde daha iyi hasta bakımı sağlayacaktır.

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