

BÖLÜM 2

ANESTEZİ YÖNÜNDEN ROBOTİK CERRAHİNİN GELİŞİMİ, ÖZELLİKLERİ VE ROBOTİK CERRAHİDE ANESTEZİ YÖNETİMİ

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GİRİŞ

Günümüzde hızla gelişen teknoloji, yaşamın her alanını etkilediği gibi sağlık hizmeti sunumunda da önemli kazanımlar sağlamıştır. Daha önceden hayal dahi edilemeyen teşhis, tedavi yöntemleri günümüzde yaygın olarak kullanılır olmuştur. Laparoskopik cerrahinin 1980'li yıllarda pratik uygulamaya girmesi ile birçok uzmanlık alanında minimal invaziv girişimlere ilgi ve dolayısı ile günlük uygulamadaki kullanım sıklıklarının da artmıştır. Morbidite ve mortaliteyi azaltan, hastanede kalış süresini kısaltan minimal invaziv cerrahi teknikler, robotik sistemler, hibrit ameliyathane kavramları, yapay zeka, tele-sağlık teknolojileri, sanal gerçeklik eğitimleri büyük bir ivme kazanmıştır. Robotik cerrahi günümüzde üroloji, jinekoloji ve jineko-onkoloji, genel cerrahi, KVC, KBB gibi birçok branşta kullanım alanı bulmakta ve kullanımı giderek yaygınlaşmaktadır [1-6]. Açık cerrahi ile kıyasla laparoskopik ve robotik işlemler “minimal invazif” olarak tanımlansa da gerek hasta pozisyonu ve gerekse çalışılan alanlara CO₂ insuflasyonun etkileri ile bu işlemler anestezi yönünden “maksimal invazif” olarak değerlendirilebilir. Bu nedendenle konunun anestezi yönünden önemi daha da artmaktadır.

ROBOTİK CERRAHİNİN GELİŞİMİ

Bir cerrahi robot, cerrahi aletlerin konumlandırılmasına ve kullanımına yardımcı olmak için programlanabilen bilgisayar kontrollü bir cihazdır. Bilgisayarlı tomografi eşliğinde beyin biyopsisi almak için iğneyi yönlendirmekte kullanılan PUMA 560 (1985) ilk cerrahi amaçlı robottur. Probot (1988) ürolojide, Robodoc (1992) ortopedide, Zeus (1998) jinekolojide kullanıma girmiştir. Optimal konumlandırma için Otomatik Endoskopik Sistem (AESOP), karın içi cerrahide kullanım için ABD Gıda ve İlaç Dairesi tarafından onaylanan ilk robotik cihazdır. AESOP daha

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