BÖLÜM 47

ORTOPEDİK CERRAHİDE DENEYSEL HAYVAN MODELLERİ

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Giriş

Ortopedi ve Travmatolojide klinik çalışmaların hasta sayısının yetersiz kalabilmesi, uygun kontrol grubunun olmaması, etik problemler, hasta popülasyonun çok değişkene sahip olması gibi bazı sorunları vardır ve bu sorunların üstesinden gelmek için araştırmacılar hayvan deneylerine yönelmektedir (1). Hayvan modelleri, kas-iskelet biyolojisinin çeşitli yönlerini incelemek ve yeni tedaviler geliştirmek ve test etmek için ortopedik araştırmalarda yaygın olarak kullanılmaktadır. Bu modeller fareleri, ratları, tavşanları, domuzları, köpekleri, koyunları ve insan olmayan primatları içerebilir. Hayvan deneylerinin de bazı sorunları vardır: Etik problemler, kemik iyileşmesinin evrimde gelişmişlik ve yaş ile ters orantılı olması, ilaç dozu ayarlanmasında problem yaşanması gibi sorunlar bulunmaktadır (1). Hayvan çalışmasında da uyulması gereken temel ilkeler vardır. Üç R ilkesi 1960'ların başında iki İngiliz biyolog Russel ve Burch tarafından " The Principle of Humane Experimental Technique " adlı kitaplarında ortaya atılmıştır. 3R: Replacement (Yerine koyma), Reduction (Azaltma), Refinement (İyileştirme) anlamına gelmektedir (2). Yerine koyma, hayvanların kullanılmasını

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