BÖLÜM 5

Erkek Fertilitesinin Düzenlenmesinde Leydig ve Sertoli Hücre Fonksiyonlarının Regülâsyonu

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LEYDİG HÜCRELERİ

Spermatogenez ve spermiyogenez basamaklarının gerçekleştiği testis iki anatomik bölgeden oluşur. Bu bölgeler seminifer tübüller ve interstisyel alan denen kompartmanlardan meydana gelir. Seminifer tübüller içinde farklı aşamalarda germ hücreleri yer alır. Ayrıca destek hücreleri olan sertoli hücreleri de bu bölgede yerleşir. Seminifer tübüller arasındaki vaskülarize alan ise interstisyel bölgeyi oluşturur (1). İnterstisyel bölge içinde, androjen salgı yapan Leydig hücreleri bulunmaktadır ve bu hücreler, hipotalamik-hipofiz ekseni tarafından hormonal düzenleme altındadır. Adını 1850 yılında alman anatomist zoolog Franz von Leydig'den alan Leydig hücreleri; seminifer tübüllerin etrafındaki interstisyel dokuda (kan ve lenf damarları etrafında) düzensiz hücre kümeleri şeklinde yerleşmişlerdir. (2).

Leydig Hücre Kökeni ve Histolojisi

Testiküler hacmin yaklaşık üçte biri interstisyel alandan oluşur. Bu alan leydig hücreleri, kan damarları, sinir ağı, lenfatikler, bağ doku ve makrofajlara ev sahipliği yapar. Yetişkin bir insan testisinde yaklaşık 700 milyon Leydig hücresi bulunup, bu sayı interstisyel dokunun yaklaşık %10-20'sini oluşturur. Poligonal

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TDF bölgesi varsa embriyo erkek, aksi halde dişi yönünde gelişme gösterecektir. Sekizinci haftadan itibaren testiste Leydig hücreleri testosteron ve insülin benzeri faktör 3 salgılanmaya başlarken sertoli hücreleride AMH üretmeye başlar ve böylece bu hormonun yardımıyla, çift cinsiyetlilik gibi durumlar engellemiş olur.

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