Konu 10

İntrauterin İnseminasyon

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İntrauterin inseminasyon (İUİ) son yıllarda infertilite pratiğinde en yaygın uygulanan tedavi alternatiflerden biridir. Bu yöntem, **en sık erkek faktörü ve açıklanamayan subfertil çiftlerin tedavisinde kullanılır.** Hastanın klomifen sitrat veya gonadotropinlerle stimulasyonu (superovulasyon), siklusun ovulasyon dönemine kadar monitorizasyonu, ovulasyonun hCG ile tetiklenmesi ve ovulasyon ile senkron olarak yıkanmış ve hazırlanmış spermin inseminasyonu, İUİ sikluslarında en sık uygulanan klinik ve laboratuar tekni̇kleridir.

İUİ tedavisi çok uygulanan bir yöntem olmakla birlikte gebelik başarısı ile ilgili literatür verileri farklılık göstermektedir. Literatürde İUİ'nun başarısı ile ilgili farklılıkların kaynağı seçilen hasta grupları ve/veya klinik uygulamalarla ilgili yöntem farklılıkları sonucunda olabilir (Tablo 1). *İnfertilite nedenine göre genel literatürde erkek subfertilitesi için % 0–25, izah edilemeyen infertilite için % 0–40 arası siklus başına gebelik oranları bildirilirken, aynı oranlar randomize kontrollü çalışmalarda erkek subfertilitesi için % 3–14, açıklanamayan subfertilite için % 8.7–20 arası bildirilmiştir (1-5).* Açıklanamayan subfertilite vakaları için İUİ tedavisi tek başına uygulandığında % 4-6 olan siklus başına gebelik oranlarının gonadotropinlerle superovulasyon ile beraber uygulandığında % 15-18'e ulaştığı bilinmektedir (6-8).

İUİ'NUN TERAPOTİK ETKİNLİĞİNİN MUHTEMEL MEKANİZMALARI

İUİ sikluslarında fekundabiliteyi arttıran mekanizmalar sadece inseminasyon işlemine bağlı değildir; sperm yıkama ve İUİ siklusunda uygulanan superovulasyon işlemlerinin de önemli katkıları vardır. **İnseminasyon için semen hazırlama yöntemleri ile seminal plazma ve içindeki sitokinler, prostaglandinler, oksijen radikalleri, antijen ve enfeksiyon ajanları yanında kötü kalite spermatozoa, lökosit ve hücre artıkları ayrılır (9-11).** Seminal plazmanın ayrılması ve kavite içine erkeğe ait proteinlerin verilmesinin engellenmesi ile uterus krampları önlenirken, enfeksiyon riski de azalır. Aynı zamanda, sperm yıkama işlemi spermatozoa'nın oositi dölleyebilmesi için gerekli olan ve invivo olarak servikal kanal ve uterus kavitesi içinde kazanılan kapasitasyon yeteneğini sağlar (11-14). Sperm hazırlama tekniği ile yıkanarak ayıklanmış olan çok sayıda hareketli spermatozoanın intrauterin inseminasyonu ile servikal mukusun filtrasyon etkisi önlenerek kavite içine daha fazla sayıda progresif hareketli sperm verilir. Böylece koitus sonrası tubanın ampullasında yaklaşık 100-300 arasında bulunabilen fertilizasyon için gerekli kaliteli spermatozoa sayısı arttırılmış olur. Son olarak, İUİ sikluslarında uygulanan superovulasyon ile invivo sperm ile karşılaşan ovum sayısı arttırılmış olur.

İUİ TEDAVİSİNİN ENDİKASYONLARI

IUI -terapotik etkenliğini sağlayan yukarıda belirtilen muhtemel mekanizmalar göz önüne alınarak- subfertil populasyonda geniş bir spektrumda ampirik olarak kullanılmaktadır. Erkek infertilitesinde eşin spermiyle veya donör spermiyle İUİ yapılabilir (15). Eldeki veriler, erkek infertilitesi vakalarında bazal veya hazırlama sonrası insemine edilen sperm parametreleri sayı ve motilite yönünden kötüleştikçe İUİ'nun etkinliğinin azaldığını göstermektedir. Geniş serilerde **ejakulattaki total motil sperm sayısı göz önüne alındığında 5-10x10^6 altındaki değerlerde (16-18), yıkama sonrası insemine edilen total motil sperm sayısı göz önüne alındığında ise 5x10^6 altındaki değerlerde (19,20) gebelik şansının belirgin düşük**

önemi en belirgin olanlar işlem sonrası hareketli sperm yüzdesi ile insemine edilen total motil sperm sayısıdır. Strict morfolojik sperm değerlendirme kriterlerinin prognostik değeri ile ilgili bilgiler yetersizdir.

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