

Assessment of uterine receptivity by the endometrial-subendometrial blood flow distribution pattern in women undergoing in vitro fertilization-embryo transfer

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摘要

Abstract

Objective: To investigate the correlation of blood flow detected by color Doppler sonography in the endometrial-subendometrial unit with pregnancy outcome of IVF-ET treatments.

Design: Prospective clinical study.

Setting: University setting.

Patient(s): Six hundred twenty-three patients selected prospectively on the day of ET.

Intervention(s): Transvaginal ultrasound examination was performed before ET.

Main Outcome Measure(s): Association between pregnancy outcome and distribution of endometrial-subendometrial blood flow (primary outcome measure) and between pregnancy rate and endometrial measurements as well as uterine arterial blood flow (secondary outcome measures).

Result(s): The overall pregnancy rate was 28.4% (177/623) per ET. The pregnancy and implantation rates of patients with the presence of both endometrial and subendometrial flow were 47.8% (64/134) and 24.2% (94/388); for patients with subendometrial flow only, 29.7% (102/343) and 15.8% (153/967); and for patients with no detectable endometrial-subendometrial flow, 7.5% (11/146) and 3.5% (13/376), respectively. The presence of both endometrial and subendometrial blood flow is indicative of good endometrial receptivity, whereas the absence of both represents a poor uterine environment.

Nondetectable endometrial-subendometrial flow was associated with women who were older, had a thinner endometrium, and had higher uterine arterial resistance compared with those women who had detectable flow.

Conclusion(s): Endometrial-subendometrial blood flow distribution pattern assessed by transvaginal color Doppler before ET is correlated with the implantation and pregnancy rate of IVF treatment.