

POMEN ULTRAZVOČNIH ZNAČILNOSTI ENDOMETRIJA PRI NAPOVEDOVANJU VGNEZDITVE ZARODKOV V POSTOPKIH ZUNAJTELESNE OPLODITVE V NARAVNEM CIKLUSU

PREDICTIVE VALUE OF ECHOGRAPHIC CHARACTERISTICS OF ENDOMETRIUM ON
IMPLANTATION RATE IN IN-VITRO FERTILISATION IN UNSTIMULATED CYCLE

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Izvleček – Izhodišča. Namen raziskave je bil ugotoviti, ali z ultrazvočnimi značilnostmi endometrija, kot so debelina, tip, in gibanje subendometrija, na dan prenosa zarodka v postopku zunajtelesne oploditve (IVF) v naravnem ciklusu lahko napovemo možnost vgnezditve zarodka.

Abstract – Background. The purpose of this study was to determine whether endometrial features such as thickness, type and subendometrial movements observed by ultrasound on the day of embryo transfer in *in vitro* fertilisation (IVF) in natural cycles, can predict implantation outcome.

Metode. V prospektivno raziskavo smo vključili 108 naravnih ciklusov IVF, pri katerih je prišlo do prenosa zarodka. Eno uro pred prenosom zarodkov smo z vaginalnim ultrazvokom merili debelino endometrija, ocenjevali izgled in gibanje endometrija. Debelino in tip endometrija smo ocenjevali v sagitalni ravnini uterusa. Ocenili smo smer gibanja, amplitudo in obseg valovanja glede na dolžino maternične votline. Ženske smo razdelili v dve skupini: prvo skupino so tvorile ženske, ki so zanosile, in drugo ženske, ki niso zanosile.

Methods. One hundred and eight natural IVF cycles in which the embryo transfer was performed were included in a prospective study.

One hour prior embryo transfer vaginal ultrasound examination was done to measure endometrial thickness, assess endometrial pattern and movements. The thickness and type of endometrium were estimated in sagittal plane of the uterus. Estimation of the direction of movements, amplitude and the amount of waves regarding the length of uterin cavity were performed.

Women were divided into two groups: the first group consisted of those who conceived and the second of those who did not.

Rezultati. Povprečna starost je bila $32,8 \pm 4,07$ leta. Obe skupini sta bili primerljivi po starosti, bazalnih vrednostih FSH, serumskih koncentracijah estradiola in povprečnem premeru folikla na dan dajanja hCG. Stopnja zanositve na prenos zarodka je bila 22,2% (24/108), 84 (77,8%) žensk pa ni bilo nosečih.

Results. The average age of women was 32.8 ± 4.07 years. Both groups were comparable in terms of age, estradiol level and average follicle diameter on the day of hCG application. Pregnancy rate on embryo transfer being 22.2% (24/108), and 84 women (77.8%) did not conceive. The thickness, type and endometrial movements were similar in both groups, therefore, not statistically significant ($p > 0.05$). Duration of menstrual cycle prior to hCG application on conceived group was shorter, statistically significant ($p = 0.002$).

Debelina in tip endometrija ter smer, obseg in amplituda gibanja endometrija so bili podobni v obeh skupinah in se statistično pomembno niso razlikovali ($p > 0,05$). Trajanje menstruacijskega ciklusa pred dajanjem hCG v skupini nenosečih je bilo statistično pomembno krajše ($p = 0,002$).

Conclusions. On the basis owing to ultrasound characteristics such as subendometrial movements, thickness and pattern on the day of embryo transfer in the natural IVF cycle have no predictive value of embryo implantation.

Zaključki. Na osnovi ugotavljanja ultrazvočnih značilnosti endometrija, kot so debelina in tip ter gibanje na dan prenosa zarodka v postopku zunajtelesne oploditve v naravnem ciklusu, ne moremo predvideti možnosti vgnezditve zarodka.