



Starting Aspirin in the First Trimester of Pregnancy May be Beneficial in Women with Thin Endometrium Candidates for IVF

Sedigheh Hantoushzadeh¹, Aida Najafian², Fatemeh Asadi¹ and Marjan Ghaemi¹,*

¹Vali-E-Asr Reproductive Health Research Center, Family Health Research Institute, Tehran University of Medical Sciences, Tehran, Iran

²Department of Gynecology and Obstetrics, Shariati Hospital, Tehran University of Medical Sciences, Tehran, Iran

*Corresponding author: Vali-E-Asr Reproductive Health Research Center, Family Health Research Institute, Tehran University of Medical Sciences, Tehran, Iran. Email: marjan_ghaemi@yahoo.com

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Dear Editor,

Uterine blood flow prepares the uterine environment for a normal placental function to support fetal growth and development. Defective placentation is characterized by a significantly increased number of junctional zone spiral arteries (1) that can be identified by partial or absence of transformation, (and) obstructive lesions (2).

On the other hand, endometrial thickness (ET) and endometrial pattern have been widely accepted as prognostic indicators for endometrial receptivity. The high blood flow impedance of uterine radial arteries impairs the growth of the glandular epithelium, causing poor vascular development, which in turn decreases blood flow in the endometrium; and this vicious circle leads to a thin endometrium (3). Low ET is associated with decreased pregnancy, implantation, and live birth rate (LBR) in in vitro fertilization (IVF) (4). These results were confirmed by Liao et al. in the thin endometrium lower than 7 mm (5). As confirmed by Ganer Herman et al. (6), although ET below 7.5 mm did not affect placenta abruption and placenta previa for malplacentation (5), the rate of bilobated placentas was higher (6). However, the rate of placental-mediated obstetric complications due to inadequate vasculature such as preeclampsia, preterm delivery, placental abruption, or small for gestational age was significantly increased in the low ET group (6).

Aspirin is associated with the highest reduction in preeclampsia by modulation and reduction in hypoxia-related placental lesions (7). Low-dose aspirin also reduces spontaneous preterm birth below 34 weeks in low-risk women (8). For initiation time, it is considered beneficial before 12 weeks for preeclampsia and fetal growth restriction (FGR) without adverse events (9). Indeed, as-

pirin has been commonly used in frozen embryo transfer (FET) cycles for better endometrium preparation, implantation, and live birth rates without changing the uterine hemodynamics (10, 11). Considering that IVF is known as a high-risk pregnancy and many candidates have a thin endometrium, aspirin can be considered after the detection of a fetal heartbeat or at the time of embryo transfer to help better placentation.

Footnotes

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