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Identification of beta human chorionic gonadotrophin (bHCG) expression in frozen cleavage embryo of in vitro fertilization (IVF) patients: An essential approach for better outcome towards human being inheritance in line with Maqasid Syari'ah concept (Article)

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Abstract

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Expression of beta-human chorionic gonadotropin (bHCG) mRNA in early cleavage cell stages is important in predicting embryo viability at blastocyst stage of development. Embryo viability is crucial for in vitro fertilization (IVF) treatment to be successful in terms of increment of implantation and pregnancy rate. In order to establish fertilization outside the human body, optimum condition mimicking the natural body environment like hormones and growth factors as well as impeccable timing must be established. Imam Muslim narrated from Hudhayfa ibn Asad that the Prophet Muhammad (SAW) said: "After the sperm-and-ovum drop (nut.fa) has been [in the uterus] forty-two days, Allah sends it an angel that gives it form and fashions its hearing, sight, skin, flesh, and skeleton". Therefore the aim of this study is to find the significant association of bHCG expression with early cell stage cleavages and its relationship as predictive marker for potential embryo implantation. Our study focuses on leftover frozen embryos from eight patients

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consists of six pregnant patients and two non-pregnant patients. We assessed the human bHCG mRNA expression at different cell cleavage stages in these frozen embryos using reverse transcriptase-polymerase chain reaction (RT-PCR). Our results have shown three out of eight patients with five to ten cells of blastomeres were expressed with bHCG. This study indicated that bHCG was expressed on froze-thawed late cleavage stage of embryos in IVF patients. © 2019 Default.

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