http://www.cjmb.org doi 10.34172/cjmb.2022.22

Open Access Editorial

Crescent Journal of Medical and Biological Sciences
Vol. 9, No. 3, July 2022, 130–131
eISSN 2148-9696

Recurrent Implantation Failure: Is It Time to Redefine It?

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Diagnosing recurrent implantation failure (RIF) is difficult for many infertile women undergoing in vitro fertilization (IVF). Over the years, its definition has changed several times. European Society of Human Reproduction and Embryology (ESHRE) Preimplantation Genetic Diagnosis (PGD) Consortium defined repeated implantation failure as ">3 embryo transfers with high quality embryos or the transfer of ≥10 embryos in multiple transfers; exact numbers to be determined by each centre" in the year of 2005, when transferring multiple embryos was common (1). In a review by Coughlan et al in 2014, RIF has been proposed to be defined as "the failure to achieve a clinical pregnancy after transfer of at least 4 good-quality embryos in a minimum of three fresh or frozen cycles in a woman under the age of 40 years" (2). A variety of other definitions of RIF based on clinical rather than scientific judgement and generally referring to two to three failed cycles in good-prognosis women have also been used so far (3).

Recently, some novel definitions were proposed because of the shortcomings of the available ones (4-6). They all guided their diagnostic criteria by statistical considerations rather than the clinical judgements or demands of the patients (7).

The probability model of Somigliana et al was based on the chances of success per cycle and defined RIF by three failed attempts including three oocyte retrievals and all subsequent transfers in women younger than 40 years of age (6). Rozen and colleagues' complex individualized diagnostic method suggested to consider multiple factors with the inclusion of the woman's age, the number, stage and quality of embryos transferred previously, the cycle types, etc. (5). The other complex model by Ata et al also proposed an individualized model which was mainly based on the euploidy rates anticipated for the female age ranges (4).

As a result, we may conclude that a widely adopted rational definition of RIF is not yet available and the efforts to provide such a definition is still on progress. We are looking forward to seeing whether the recently suggested definitions of RIF will be accepted by the scientific community and the patients or not.

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Conflict of Interests

The author has no conflicts of interest to disclose.

Ethical Issues

Not applicable.

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Received 10 June 2022, **Accepted** 21 July 2022, **Available online** 29 July 2022

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