Review article:

The Objectionable Practises of The In Vitro Fertilization-Embryo Transfer Method With Respect to Islamic Law (Fiqh)

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Abstract

Upon discovery of the In Vitro Fertilization and Embryo Transfer method (IVF-ET), outcomes such as production of a great number of embryos, pre-implantation genetic screening and diagnosis, sex selection and multi-parent IVF have gradually become possible. These developments need to be evaluated in the context of the general principles of Islam as well. Islamic communities have accepted the IVF-ET technology, which allows infertile couples to have children, as an exceptional solution and treatment. Nevertheless over time, the IVF method introduced expansions that contradict with religious, ethical and social values.

Keywords: Test-tube baby, embryo, genetic diagnosis, sperm and egg donation, fiqh

Introduction

The rapid progress in the fields of biomedicine and genetics, while leading to increased knowledge and new hopes to cure diseases, have also led to ethical, legal and religious discussions. In general, scientific research can be evaluated within the context of examining and demonstrating the actions of Allah. It could be argued that Islam encourages scientific efforts that prevent disease or provide treatments with an aim to benefit humanity. However, when the issue is the potential human that is the embryo and the termination of its life, it is not sufficient to approach the topic from the perspective of benefit. This issue also needs to be discussed in relation to the harm avoidance (daf al-mazarrah) principle. Moreover, it is worrisome that a human being, the best of creations (ashrafal-mahlukat) created by Allah, has become a topic of engineering and is reduced to a laboratory-produced object.

It is not possible to find direct information on how to interpret today’s scientific and technological advances and their problems in the two main sources of Islam, Qur’an and Sunnah, and Fiqh (Islamic Law) that was established based on these sources. However, these issues can be analyzed through secondary (al-far’iyyu) evidence such as “al-istishab”, “al-maslahah” and “sadazzarai” and general principles that were obtained from the main sources of Islam. This paper will examine the practices associated with the IVF-ET technique that are problematic within the context of the Islamic law, with respect to the principles mentioned above.

Multiple Embryo Production, Cryopreservation, and Destruction in IVF-ET

The IVF-ET technique refers to the co-incubation and fertilization of an oocyte, which has been retrieved using a specific method, with sperm, and implantation of the resulting eight or sixteen-cell embryo to the uterus of the woman. More than one embryo is produced through IVF-ET because it is thought that this provides both economic and psychological advantages. The healthiest embryos are selected to be transferred to the uterus. Embryos that are not transferred can be used for scientific research or be frozen for later use.

Embryo cryopreservation has some social risks and involves ethical and legal problems. Can an embryo be subject to ownership? Should frozen embryos be donated or destroyed? Can embryo donation be considered in the same way as tissue donation or child adoption? What will be the fate of frozen embryos if a marriage ends or one of the spouses renounces to have a child or dies? Who will make decisions on the future of the embryos of deceased parents? Could the risk of other people

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zygote is the core of a human being. Therefore is mentioned. Moreover, it is indicated that the related to the creation of human beings, the zygote protection more demanding. Preventing harm in the number of frozen embryos will make their the Islamic view. On the other hand, an increase cluster of cells cannot be approved according to the life of an embryo, which is an independent from the very beginning for couples that have a high risk of having a child with a genetic defect. Thus, families that request the use of PGD first receive IVF treatment. The cells taken from the embryos that belong to families that are carriers of a genetic disorder (the same embryos produced through IVF) are examined. Therefore, genetically disordered embryos are determined and healthy embryos are transferred to the mother. This leads to the birth of healthy children who don’t possess a genetic disorder.

Although PGD is one of the most significant applications within the newest IVF technologies, it gives way to many ethical discussions. PGD practices are primarily discussed in the context of the right to live and dignity of life of the embryo. The method is criticized on the basis of discrimination, as the diseased embryos are destroyed in favor of healthy embryos. In addition, it is pointed out that being human is a divine gift and cannot be turned into a product. People should be valued based on their characteristics, however, they may be evaluated depending on their genetics due to the PGD method. Moreover, it is proposed that the genetic engineering product “designer babies” may become the routine. In fact, the technique allows selecting an embryo’s physical characteristics such as height, eye and hair color, level of intelligence, and health status. Nevertheless, using the PGD method not for the treatment of all diseases but for some such as serious blood disorders is met with a general acceptance due to its considerable benefits.

There are no restrictions for PGD in international law. It is indicated that in the case of a violation of general human rights and general principles of law, restraints may be imposed. However, it is also argued that PGD does not break any universal human rights and it does not apply to discrimination against genetically disabled people.

As of 2004, genetic diagnosis is prohibited in Germany, Italy, Switzerland, and Australia. Whereas it is permitted in Denmark, Sweden, France, and Norway. In countries such as Turkey where there are no legal regulations on the issue, the method is allowed under particular conditions. Additionally, some countries only permit polar body biopsy, which is the genetic analysis of oocyte.

On the other hand, in the judgement of International Islamic Fiqh Academy on the genetic treatment provisions, it is allowed to perform a genetic diagnosis on the embryo before implanting it into the uterus. This is achieved through PGD, which is a method that is practiced to identify the genetic disorders of the embryo that is produced through IVF, before implanting it to the uterus of the mother. Through PGD, pregnancy is controlled using these embryos be prevented?

Embryo cryopreservation brings along many questions and problems such as those mentioned above. According to Islam, just like the desire to get married, having children is a natural need. The Qur’an asks believers to marry. In addition, Prophet Muhammed (pbuh) encourages spouses to have children. If pregnancy cannot be achieved through sexual intercourse, on the condition that the sperm, egg, and womb belong to the married couple, having a baby with artificial insemination is considered a medical therapy and generally accepted by Muslim scholars and fatwa commissions. However, production, freezing, and destruction of surplus embryos add a different dimension to the issue. The decision of the International Islamic Fiqh Academy, under the Organization of Islamic Cooperation, on this issue is following: “In in vitro fertilization, only the number of eggs that will be implanted into the uterus should be fertilized each time. If surplus embryos are produced, these should be abandoned to the natural way of death without any medical protection.”

“The protection of human life” is one of the five higher goals (ad-daruriyyahad-diniyyah) of Islamic Law. In the verses of the Qur’an that are related to the creation of human beings, the zygote is mentioned. Moreover, it is indicated that the zygote is the core of a human being. Therefore ontologically, the life of a human being begins with the fertilization of an egg and a sperm that belong to two alive and different human beings. Thus, the life of an embryo, which is an independent living being from the first moment, should be protected. The viewpoint of an embryo as only a cluster of cells cannot be approved according to the Islamic view. On the other hand, an increase in the number of frozen embryos will make their protection more demanding. Preventing harm (al-mafsadah) is prioritized over obtaining benefit (al-manfaah), according to the understanding of Islam. At the present time, since the egg and sperm can be separately frozen, only a medically required minimum number of embryos should be produced by the IVF method.

**Preimplantation Genetic Diagnosis**

**Destruction of Embryos with Genetic Disorders**

Preimplantation Genetic Diagnosis (PGD) is a method that is practiced to identify the genetic disorders of the embryo that is produced through IVF, before implanting it to the uterus of the mother. Through PGD, pregnancy is controlled.
As previously mentioned, destroying an embryo which has the potential of a human being or using it as an experimental tool without a compulsive reason is religiously objectionable. Nevertheless, according to articles 21 and 22 of Mecelle -Islamic norms and doctrines:- “Necessities remove restrictions” and “If it is a necessity, the Islamic Law can be broken only for eliminating the necessity.”27 Therefore, applying the PGD method and having children through IVF may be allowed for those who are the carriers of genetic disorders. Production of a Healthy Sibling for the Treatment of a Diseased Sibling
The only treatment for serious blood disorders such as Fanconi anemia is allogeneic stem cell transplant using stem cells from a tissue compatible donor. In the case of such blood disorders, it is possible to select non-disease carrying embryos via genetic diagnosis pre-implantation and to concurrently use the Human Leukocyte Antigen genotyping (HLA) procedure. For these reasons, families that are carriers of such disorders may prefer the PGD method. For the treatment of diseased children, families can have a new child whose genetic structure is compatible with the diseased children through this method. The use of PDG for these reasons brings up the following questions: Is it ethical to use a living being that cannot decide for themselves as an experiment object? Who will decide when they can be used? How can it be guaranteed that the child conceived in order to obtain the required stem cells would not face any psychosocial problems such as feelings of worthless or perceive himself/herself as a “spare part”? The aforementioned questions and the process of ending embryos’ lives based on their genetic incompatibility with the diseased sibling make this practice objectionable with respect to Islam. It is important to mention one of the sayings (hadith) of Prophet Muhammed (pbuh) here: “There is not to be any causing of harm nor is there to be any reciprocating of harm.”28
Sex Selection – Deciding on the Sex of the Offspring
Forming an embryo with the preferred sex or selecting the sex of an embryo is possible through PGD technology. The chromosomes of the gamete (germ cells) determine sex. Sperm cells have X (female) or Y (male) chromosomes whereas an egg cell contains only the X chromosome. The sperm that fertilizes the oocyte determines the sex of the embryo. If the sperm carrying an X chromosome fertilizes the egg, the embryo will be female. If the sperm carrying a Y chromosome fertilizes the egg, the embryo will be male.29 Therefore, the sex of a baby is determined during fertilization. The PGD method, which allows for sex selection, is accepted as a positive medical practice since it allows for the detection of sex-linked disorders in the embryo.30 In cases where female members of the family are carriers of disorders such as hemophilia, having a male baby may be desired. Thus, sex selection that prevents the passing down of such genetic disorders is considered reasonable.31 However, couples in many societies desire to have a male child first due to cultural reasons. In addition, parents may demand to have a second child of a different sex than the first. Performing PGD due to such reasons is considered sex discrimination. It is also proposed that sex selection through PGD can become widespread among wealthy people due to the high costs associated with this method.32 It is also assumed that using the PGD for sex selection without medical reasons poses both personal and societal risks and a waste of healthcare resources. Using a method that was developed for diagnosing genetic disorders for sex selection due to above-mentioned reasons is considered a distortion of its aim. Indeed, according to the Convention on Human Rights and Biomedicine, signed under the Council of Europe, sex selection without medical reasons is considered illegal.33 Different arguments have been put forth regarding the permissibility of embryonic sex selection in Islam. The current Islamic law experts study the interference with the sex of an embryo in two categories - using natural ways or medical ways for the process. Some posit that couples using natural methods such as paying attention to their nutrition and arranging the time of intercourse are religiously acceptable. Related to the issue, the International Islamic Fiqh Academy underlines submission to Allah’s Qadar (destiny) and Qadaa (decree) and adopts the view that the natural intervention to the sex of an embryo is permissible, however, sex determination through medical methods is not.34 It should be noted that the existing medical knowledge posits the futility of the traditional methods. Conversely, it is suggested that intervening with the sex of an embryo through both medical and natural procedures means altering the demographic balance of the world, and thus, impermissible.35 In addition, it is indicated in the relevant fatwa...
of the High Board of Religious Affairs in Turkey that sex selection by medical interferences may cause a disruption of the balance of sex division. Therefore, sex selection is against natural disposition, cosmic and ecological balance, and the divine will, thereby impermissible. According to Islamic scholars who perceive sex selection as a personal preference that is in the interest of couples, sex selection is permitted if the spouses are both alive and give consent, there is a necessity for this process, it is performed safely in a way that prevents any mix-ups in the lineage, and the private parts are exposed only as required. Related to the issue, Yusuf Karadavi states that the sex of a baby is determined by Allah and the equilibrium is supervised herein. In fact, humans wish by the will of Allah and act by the hand of Allah. Based on that, sex selection is religiously permissible according to Karadavi. However, this allowance is only by virtue of necessities or narrow circumstances. Nevertheless, what is favorable is leaving it to the wisdom and desire of Allah. In the Qur’an it is said that: “To Allah belongs the dominion of the heavens and the earth; He creates what He wills. He gives to whom He wills female children, and He gives to whom He wills male children.” This verse clearly emphasizes the will of Allah on the offspring’s sex. Everything in the universe has been created in a certain form and balance, and every action that disrupts this balance is condemned in the Qur’an. Someone is valuable not due to their sex but due to being human according to Islam. Although sex selection is possible through technological advances, the adverse consequences of the practice cannot be ignored.

In addition, without a medical necessity, the natural fertilization that happens with sexual intercourse is transferred to the laboratory, an artificial environment. Thus, natural birth is converted into an artificial fabrication. Hormones are injected into the female, the private parts of the female are opened unduly in order to gather the oocytes, which violates the principles of privacy in the religion. Additionally, effort and money are wasted. Most importantly, the development of the embryo is prevented and its life is terminated because of its sex. Due to these reasons, applying sex selection and IVF electively cannot be considered permissible. However, in cases of medical necessities such as having a genetic disorder in the family, the process of the healthy male or female embryo formation through the sperm sorting method may be done.

### Single and Multi-Parent Babies

**Surrogate Motherhood-Sperm, Egg and Embryo Donation**

The sperm, oocyte and embryo donation, and surrogate motherhood practices have led to various discussions in relation to ethical, religious, social, and legal perspectives first in the West and later in the Muslim societies. Surrogacy, sperm and oocyte banks have started to threaten the future of the family institution and safety of progeny. These techniques transfer the process of having a child outside of the family institution, lead to births of children with unknown lineage, and degenerate the generations.

At the present time, some men who don’t want to get married and take the responsibility of a family, women who are unwilling to go through maternity and childbirth pains, and people who have homosexual tendencies see surrogacy, and sperm and oocyte banks as a solution to fulfill their inherent feelings of fatherhood and motherhood, and they can have children for a certain fee. Within the capitalist system, womb renting and sperm and oocyte trading have turned into a business connections network. These are serious social problems for societies. One of the basic rights that Islam aims to protect is “the preservation of lineage and progeny”. Moreover, this right is categorized as an extreme necessity (ad-darurah) in terms of the norms and values hierarchy. Islam objects to any danger that weakens the family institution and damages the lineage and progeny. Lineage refers to the bloodline of each person with their father-mother and grandfather-grandmother. This reality is stated in the Qur’an as: “It is He who has created from water a human being and made him [a relative by] lineage and marriage. Your Lord is All-Powerful.” Every child deserves to be born with a precise lineage and it is their natural right to know their own bloodline. Accordingly, providing the continuity of progeny through a marriage that is built by a legitimate marriage covenant is one of the major aims of Islam. In fact, the necessity of marriage to have a child is emphasized in the Qur’an in several verses.

The certainty of lineage is also important since the uncertainty may create an obstacle for marriage, and cause problems with alimony, custody and inheritance conditions. For the protection of lineage which has a special position in the sense
of child rights, many mandatory and prohibitory provisions are constituted in Islam. With these provisions, the conservation of good sense and disposition are promoted, the honor and respectability of all humans, the peace and lasting of family and society are aimed. In addition, practices which may cause mixing of bloodlines are not allowed. Hence, the essential precautions are taken for the proper protection of progeny.

In the case that there is no possibility to have a child with sexual intercourse, artificial insemination, where the sperm and oocyte belong to married couples, by using the assisted reproductive techniques is accepted as a marital intercourse. Since it allows to determine the lineage. However, using the womb, embryo, sperm or oocyte that belong to others in order to have a child is not permissible due to the violation of the principles of Islam on privacy, marriage, preservation of progeny and personality, protection of people’s soul and physical health, and human dignity. Indeed, the certain fiqh rules of the Islamic world and majority of contemporary Islamic law scholars judge that the use of womb, embryo, sperm or oocyte that belong to others and surrogacy technique are unlawful. Additionally, according to Islamic understanding, a human is an honorable being. Thus, none of the cells and organs of a human including sperm, oocyte, and womb can be the subject of commerce. Turning children, who are the most innocent and precious beings on Earth, into a good that can be acquired with money is not acceptable in Islam.

Conclusion
The allowance of tube-baby treatment for people who cannot have a child through sexual intercourse is given by Islamic scholars in terms of the law of necessity. However, the IVF treatment transfers the reproduction process from natural way to laboratory, an artificial field. Gradually, many religiously unacceptable practices of the IVF method have been faced.

According to Islam, not only the protection of the life of fetus in mother’s womb but also the life of the embryo which is produced through artificial fertilization is significant and a great responsibility. In addition, from the beginning of fertilization, the embryo should be treated as a potential human being. Therefore, it should be considered that producing surplus embryos by IVF, destroying embryos for genetic diagnosis, sex selection or other reasons, and using others’ sperm, oocyte and embryos involves many religious and ethical problems.

There is no doubt that as Muslims, we need a perspective to determine our view towards the biotechnological progress and practices. Accepting all technological advances and treatment-purpose studies for the sake of the absolute benefit of human beings is not a rational approach. A cost-benefit analysis should be done. In fiqh terms, it may sometimes be required to prevent costs (sad az-zarai’), whereas prioritize benefits other times (calb al-manafi’) due to the concept of maslahah. It should be reminded that the concept of maslahah does not contradict with the basic principles of Islam, refers to private and public interest, and can be adopted unhesitatingly by people with good senses.

Ultimately, biotechnological practices and medical methods should not involve an interference with the honor and prestige of mankind, should not be a threat to the personal characteristics of people, should provide absolute benefit for humanity rather than harm, should not turn a human being into an experimental object, create discomfort in our conscience, destroy the social fabric, family and kinship connections, and damage the safety of lineage. The genetic and technological studies should not be directed by poisonous power passion and commercial concerns but for the sake of humanity.


10. Ibn Mâce, Marriage, 1.


15. It is indicated that only in the U.S.A, are there more than 400,000 frozen embryos. See, Singer, P. Pratik Etik. Translated by Nedim Çatlı, Istanbul 2012, p. 192.


32. Vatanoğlu Lutz, E. E. “Preimplantation Genetic Diagnosis (PGD) According to Medical Ethics and
In the Qur’an, it is stated that ‘And your Lord creates what He wills and chooses; not for them was the choice. Exalted is Allah and high above what they associate with Him.’ (Al-Qasas, 28/68).

Karadâvî, Y.Minhediyi’l-IslâmFetâvâMuâsıra, el-


45. An-Nahl, 16/72; Ar-Ra’d, 13/38.
46. An-Nisâ, 4/23; Al- Isrâ, 17/32
47. Al- Furqan, 25/54.
48. Al-Nahl, 16/72; Ar-Ra’d, 13/38.
49. An-Nisâ, 4/23; Al- Isrâ, 17/32