Examining the Reasons for the Permission to Perform the Cryonics Process

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**ABSTRACT**

**Background**
One of the advances in human knowledge is cryonic technology, a human protection form. The purpose of this process is to prevent the decay of proteins and living cells of the human body through freezing at shallow temperatures; hoping to bring them back to normal with the advancement of medical science and technology, some see cryonics as a form of suicide. The present study seeks to compare the definition of death and suicide by explaining the process of human freezing.

**Materials and Methods**
This research has been done using library resources in a descriptive-analytical manner.

**Ethical Considerations**
Honesty and fidelity in writing the text have been observed.

**Findings**
Cryonic is not considered suicide. Because; The dying patient, by freezing, seeks to escape certain death. The wise act is the only available solution. Preserving life and striving for it is a religious obligation for every individual.

**Conclusion**
The incurable patient seeks to revive the soul by freezing, repelling harm, denying psychological hardship, and reason dictates that the only remaining way to preserve the soul, which is cryonic, is to be saved from certain death. The cryonic process is technically one of the stages of the treatment process.

**Key words**
Cryonics, Reasons, Permission, Human Freezing, Death, Suicide.

**How to Cite this Article**

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INTRODUCTION

A. Preface

One of the new technologies that have entered medicine and genetic engineering is cryonic technology. The purpose of this process is to prevent the decay of proteins and living cells of the human body through freezing at shallow temperatures; with the hope that with the advancement of medical science and technology, they will return them to their everyday lives.

Because science has failed to bring any frozen individuals back to life, some consider cryonics to be a form of suicide. Cryonics is only practiced in some countries so far, so given the sensitivity of this issue, it is necessary to analyze and study the concepts and titles of jurisprudence such as suicide, death, etc., that challenge the cryonic process.

B. Background

Due to the emergence of the cryonic problem in this field, there is little research that can be mentioned in the following dissertations:


None of the above articles have examined the concepts of suicide, death, and human life stages from a medical perspective. Since those who believe in cryonic legitimacy's impermissibility argue for arguments such as induction of self in indulgence, unjust murder, self-harm, etc., it is necessary to give a reasoned answer to their argument by explaining the mentioned concepts.

C. Cryonic Process

The cryonic process is a branch of physics that aims to study the reaction of living tissues and proteins to exposure to shallow temperatures and freezing [1].

In cryopreservation companies, when a patient is in a state of cardiac arrest, cryogenic specialists and physicians, before the brain cells are destroyed, freeze the patient's body and deliver blood and oxygen to the brain using a particular device that as a result of this process, brain cell death is prevented [2].

D. Definitions and Concepts

1- Definition and Symptoms of Death

1-1- Definition of Death

From a medical point of view, death is a complete and irreversible cessation of vital
functions, and usually, the heart first fails, followed by the death of brain cells, resulting in loss of respiration, sensation, and movement. Sometimes, on the contrary, brain cell death occurs first. Shortness of breath, resulting in a lack of oxygen in the blood, causes the heart to fail, resulting in both definite and actual death [3].

In the second half of the twentieth century, following the evolution of biomedical technology and cardiopulmonary resuscitation techniques (electronic shock, ventilator, and pacemaker), the science of resuscitation emerged, followed by cardiopulmonary insufficiency as always. It is not considered an irreversible situation [4].

1-2- Symptoms of Apparent Death

As we have said, respiratory actions and heart movements are incredibly mild and may even seem to stop. A person often returns to life by artificial respiration, delivering oxygen, and stimulating the heart with an electric shock (electroshock) [3]. Within 3 to 5 minutes, apparent death becomes definite death, and this is when brain cells are not yet dead.

The disappearance of cardiovascular and respiratory functions does not co-occur, and among them, the disappearance of cardiovascular functions is the most important. The heart may fail and stop breathing after brain cell death [5].

1-3- Symptoms of Definite Death

Death is definite when the cardiovascular, sensory, and motor functions are eliminated, and its return is not possible [3]. Moreover, brain cells are dead [5]. In this case, the corpse may be exposed to the cold, and as a result, the vital centers need less oxygen, causing the child to return to life [3]. In other words, at each stage of death, a specific part of the body's organs stop functioning and stop functioning [6].

2- Stages of Life

The types of life from the point of view of medical knowledge are as follows:

2-1- Full Life of the Corpse: In this situation, all the body organs are in complete contact with each other, and the level of consciousness of the person is at a high and perfect level.

2-2- Persistent Vegetative States (Vegetative States): In this case, due to the disappearance of the cerebral cortex in the brain, which is responsible for perception and voluntary movements, the person loses perception and the ability to perform voluntary movements.

Simply put, one does not have the power to perceive and react to one's surroundings. However, the part of the brain that is responsible for controlling the body's involuntary and vital actions is healthy. As a result, body temperature, respiration, and heart rate are controlled. This is why some writers call this condition "the death of cognition and perception." [7]
2-3- **Organ Life:** If the brain and brainstem's function is wholly destroyed, life can be maintained in different parts of the body by using preservatives. In this situation, the person does not have an independent life.

2-4- **Tissue Life:** Forms a set of cells in the body formed after their division and proliferation.

2-5- **Cell Life:** In this situation, the person's death and the cessation of the respiratory process have occurred [4].

In general, the process of death occurs in three main stages, which are:

- Stopping the function of the heart and lungs;
- Death of brain cells due to lack of oxygen that previously reached the brain cells through blood circulation;

Eventually, the death of other cells [8].

3- **Definition of Suicide**

The equivalent of the word suicide is to kill oneself [9]. In suicide, unlike murder, which is also considered a life-threatening act, the killer and the victim are one person [10].

**MATERIALS AND METHODS**

This research is a theoretical type; the research method is a descriptive-analytical one.

**DISCUSSION**

A. **Reasons for Cryonic Impermissibility**

1- **Verses (Quran & Hadith)**

Verse 195 of *Surah Al-Baqarah* is the first verse to be cited in this regard by the opponents of the cryonic process. The verse says:

Moreover, spend in the way of God, and do not destroy yourselves with your own hands, and do well, for God loves goodness [11].

**Argument:** According to the opponents, the holy verse forbids any action that exposes man to perdition [12].

**Answer to the Argument:** In the interpretation and expression of this verse, several possibilities have been mentioned, some of which are mentioned below: Induction means throwing and interpreting with your own hands, pointing out that you do not do it of your own free will [13].

Some believes that the verse means that they should not be stingy. "It means that you do not destroy yourself by being stingy with wealth" [14].

"And do not kill yourself" is the implication of the answer to the condition, that is, if you refuse to give alms, you will perish, and you should not kill yourself with your own hands [15].

We can see a similar situation in a narration of Imam Mohammad Baqir, who says: "If a person spends everything he has in the way of God, he has not done a good deed and
has not acted on this verse of the Qur'an" [16].

Yaman Ibn Rabab and Mufaddal Ibn Salma said; The Arabs say to the one who submits to perdition and despairs of salvation:

Shaykh al-Tusi writes: And the word of the Almighty (and do not neglect) means that you do not plan to do what you want us to do [17].

And the phrase does not kill yourself with your own hands is a general rule.

Man can not destroy his body and property and provide him with troubles and troubles in ways that are neither for the benefit of this world nor the Hereafter [18].

The following sample interpretation of the verse states:

Although the sentence (and do not throw yourself into ruin ...) has been included in the case of leaving alms for Islamic Jihad, it has a wide meaning that includes many other cases; For example, a person does not have the right to cross dangerous roads (whether in terms of insecurity, weather or other factors) without the necessary foresight, or to eat food that is most likely contaminated with poison, or even in the field of jihad, without a plan. Take action. In all these cases, man has unnecessarily risked his life and is responsible [19].

On the one hand, the risk of death due to disease and on the other hand, the possible consequences of the freezing process [20].

Verse 93 of Surah Al-Nisa 'says: And whoever intentionally kills a believer, his punishment will be Hell, where he will abide, and God will be angry with him and curse him and has prepared for him greatly [11].

God also says in verse 30 of Surah Al-Nisa': Do not kill yourself, for God is always merciful to you, and whoever does so out of aggression, we will soon burn him in the fire, and this is easy for God [11].

There is a narration from the Holy Prophet of Islam which says:

Whoever commits suicide with an iron will enter the fire of Hell while holding iron and swallowing it in his stomach and staying in it forever, and whoever kills himself by eating poison will enter Hell while Who has poison in his hand and eats it and will stay in the fire of Hell forever, and whoever kills himself by throwing himself from the mountain will be thrown into the fire of Hell and will stay there forever [21].

Imam Baqir also said: A person with faith may be afflicted with any pressure and suffering and die with any death, but he does not commit suicide [22].

Imam Sadegh also says: Whoever willingly and consciously kills himself will be continuously burned in the fire of Hell [23].

Answer to the Argument: When a patient with an incurable disease declares his or her consent to perform a cryonic procedure, not
only does he or she not intend to end his or her life, but his or her goal is to save his or her life and save his or her life from certain death.

In the face of certain death, the cryonic process is the only solution that can save a person's life [2].

2- Cryonic Risk

Argument: Some critics of the cryonic process believe that this process is considered a danger to life from a jurisprudential point of view, and such a danger is not permissible due to its irreversibility [24].

Answer to the Argument: Risk on human life is not considered unauthorized in all cases [25].

3- Inadmissibility of Harming Oneself and Others

In the jurisprudential and legal system of Islam, as a general rule, it is forbidden to inflict harm on anyone, even "oneself" [26].

This rule has been emphasized in various narrations and in different ways. In the following, we will refer to some of these narrations that have been cited by the opponents of the cryonic process.

The Messenger of God (PBUH) said: *Whoever cheats on a Muslim or harms him is not one of us* [27],[28].

It is also narrated from another Imam that: "Whoever harms a Muslim is not one of us, and we are not with him in this world and the hereafter." [27].

According to the opponents and critics of the cryonic process, in the jurisprudential-legal system of Islam, by the rule of *No Harm*, any kind of harm is prohibited. In analyzing this rule, one must be careful to harm himself or others. As a result, if the patient consents to the cryonic process, he consents to harm himself and commits a forbidden act.

Answer to the Argument: There are a few essential points to note about this claim:

The first point is that the freezing and cryopreservation process is part of the healing process.

The second point is that, if we consider the cryonic process as a clear example of harm, we should still pay attention to the fact that in the literature of Islamic jurists, we must distinguish between the situations of self-harm and harm to others. There is a consensus among all jurists regarding the sanctity of harming others. However, there is disagreement among jurists regarding the sanctity of self-harm [26].

As a result, according to the principle of correctness and permissibility, it should be said that the sanctity of self-harm exists only in cases that have been explicitly stated by the lawgiver, such as the sanctity of murder, amputation or the like [29].
In his opinion, the damage that can be borne and has a rational purpose is acceptable [30].

The third point is that, even if one accepts the assumption that the cryonic process is self-harming and therefore Haram, in the practice space, one must choose the milder at the crossroads between the two forbidden actions [20].

4- Obligatory Duties

Argument: Another argument put forward by critics and opponents of the cryonic process is that the process causes each person to stop performing the obligatory duties such as acts of worship, the issue of wills, and so on.

Answer to the Argument: In response to this argument, it should be said; freezing of the patient occurs after cardiac stop.

5- Changing the Concept of Death

Argument: "Cryonics changes the nature and meaning of death." Therefore it is not permissible.

Answer to the Argument: In response to this argument, it should be said; In this case, any progress in technology and medical science that changes the concept of death must be prohibited and illegitimate.

6 - Loss of Limbs

Argument: "It may be hoping for frostbite to destroy the limb." So freezing is not allowed.

Answer to the Argument: In the answer should be said; Cryonics is performed in the hope of reviving and returning the person to the state of health and organs.

B. Reasons for Cryonic Permission

1- Verse 32 of Surah Ma'idah

This verse says: Therefore, We decreed for the children of Israel that whoever kills anyone except retaliation for murder, or [punishment] for corruption on earth - it is as if he had killed all the people [11].

Allameh Tabatabai, in the interpretation of this verse, says:

The meaning of the phrase "reviving" in verse is a process that common sense calls "reviving." [31].

The commentator of Majma 'al-Bayyan has also stated as follows:

"Whenever one saves another person from a deadly state, such as rescuing someone who is drowning, is either burning or is under the rubble" [16].

2- Hadith

Muhammad Ibn Yahya says: I said to Abu Abdullah Sadegh: May God correct your work, do you allow me to ask a question? Abu Abdullah said: Yes. I said: I used to have the enthusiasm, and now I do not have that enthusiasm. I used to go to the village and invite one, two people, a woman or a man, to the religion of truth, and God would
save anyone he wanted from going astray. But now I do not invite anyone. Abu Abdullah said: There is no reason for you to stop interfering between God and God's servants. Because God brings out of darkness into light whomever He wills.

Abu Abdullah said: If you find someone who is seeking the truth and ready to be guided and share some truths of the school with him, it will still not be a problem for you. I said: Inform me of the meaning of God's word, which says: ... and whoever saves a person from certain death means that he has saved all people from certain death. Abu Abdullaah said: It means to save him from the flame of fire or the flood of death. Abu Abdullaah Sadegh was silent for a moment and then said: The verse's highest interpretation is to invite him to the truth and accept him [32],[33]. In another narration, it is stated: Imam Sadegh is quoted as saying: Whoever gives water (to another) in a place where there is water is like one who has freed a slave [34].

3- The Rule “No harming and No harassment in Islam”

Different opinions have been presented about this hadith and its meaning. Sheikh Ansari believes that this hadith denies rulings that cause harm in the Shari'a [35]. Akhound also believes that the meaning of the hadith with the theme of harmlessness, forbidding harmful rulings, is in the language of claiming the negation of harmful matters [36].

4- The Rule “Hardship”

This rule is one of the essential rules of jurisprudence because it applies in all chapters of jurisprudence, and even in some cases that do not have the title of jurisprudential sub-rule, this rule applies. [37]. According to verses and hadith, the meaning of this rule in jurisprudential terminology is that: Tasks in which there is difficulty and cause hardship and difficulty for the obligee are void [38].

Some jurists believe that the rule of hardship is limited to physical hardship [39].

5- The Reason

It is not permissible to ignore it if the possibility of salvation is a reasonable possibility and considerable [40].

6- Obligation to preserve life in Conflict with other Rules

Preservation of life is not only obligatory and subject to its destruction is prohibited, but due to its particular importance, it is permissible but also obligatory to leave an obligatory act or a forbidden act in order to preserve life [41],[42].

In general, if it is possible to diagnose or treat the disease with legitimate and Halal methods, it is not permissible to perform illegal methods. Nevertheless, if there is no choice but to do illegitimate methods, there is no problem in doing them as much as necessary [43].
**7- Permission for Medical Procedures in Case of Emergency**

As previously stated, from the point of view of cryogenic scientists and the protocols and institutional standards that perform the cryonic process, patients who froze through the cryonic process are not considered a "corpse" but a patient and a living person [44].

According to jurisprudence rules, medical examinations and treatment methods are permissible in cases where it is necessary. [45],[46]. The diagnosis of necessity is a specialized matter, once the patient himself is a specialist and has the power of diagnosis, otherwise it is the basis and criterion for the diagnosis of a competent physician [47].

**8- Priority**

A patient who tries to save his life with the help of resuscitation devices if the doctors are disappointed with his recovery and no progress is made in if he is not in good health; they are jurisprudentially allowed to separate the restraint devices from the patient.

**CONCLUSION**

After examining the evidence of cryonic impermissibility and considering the concepts of suicide, death, stages of human life in medicine, and explaining the process of human freezing, it is obtained that:

Cryonic is not considered suicide or suicide because a patient who is dying by freezing seeks to escape certain death. The wise act is the only available solution. Therefore, freezing, suicide, and induction are not in motion.

The reason for this goes back to the fact that leaving the cryonic process in these circumstances will lead to certain death;

Therefore, the incurable patient seeks to revive the soul by freezing, repelling harm, denying psychological hardship, and reason dictates that the only remaining way to preserve the soul, which is cryonic, is to be saved from certain death. It should also be borne in mind that preserving life and striving for it is a religious obligation for every individual. On the other hand, the cryonic process is technically one of the treatment process stages.

**ETHICAL CONSIDERATION**

Authenticity of the texts, honesty and fidelity has been observed.

**AUTHOR CONTRIBUTIONS**

Planning and writing of the manuscript was done solely by the author.

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**CONFLICT OF INTEREST**

No conflict of interest was reported by the author.
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