

Pig Eye Cornea Transplantation from Maslahah Ath-Thufi's Perspective

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ABSTRACT

Islamic Law prohibit pork, while corneas from pig eyes can be used as a substitute for human corneas that are blind due to corneal abnormalities by transplanting corneas from either human corneas or corneas from pig eyes. Pig corneas have close genetic and anatomical similarities to human corneas so that rejection of the transplanted organ tissue is minimal. Transplantation of pig corneas as a replacement for human corneas does not yet have a clear law in the Al-Quran and Al-Hadith, so the law needs to be established, in this case the author approaches the law from the perspective of Maslahah from Najamuddin Ath-Thufi who states that Maslahah is a shariah proposition ' strongest where Allah Ta'aala prioritizes maintaining the benefit of His servants as a gift from Allah. This article is a descriptive study where the author only takes and processes data sourced from literature related to the research topic with the tentative conclusion that transplantation of pig corneas as a replacement for human corneas is permitted for the benefit of humans if it is necessary to overcome blindness so that they can see again.

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1. INTRODUCTION

Pig cornea transplantation has become an alternative as a substitute for human corneas at this time which is an inevitability that has occurred (Hasugian MR, 2019) so that a Muslim doctor who will carry out this action requires certainty in Islamic law regarding the action he will carry out, as well as Islamic legal certainty for a Muslim who is blind due to corneal abnormalities can restore his vision by replacing (transplanting) his damaged cornea with a new cornea sourced from human corneas, but this is very difficult to obtain due to the very lack of people who are willing and willing to donate both eyes through the Eye Bank to give to others in need if he died.

Sight is the greatest gift given by Allah to living creatures. The eye has a very important function in the life of living creatures to obtain information from nature and the surrounding environment. The eyes are the most important sense for humans, by seeing more than 80% of information from nature can be absorbed for various human activities. If visual impairment occurs, it will cause problems for humans in carrying out their work, so efforts to prevent and overcome it must receive serious attention from sufferers, health workers, the community and the government (Ministry of Health of the Republic of Indonesia, 2014)

Blindness is a global problem in the world because of its high prevalence and large impact. Blindness impacts social life and affects people's productivity. Around one billion people in the world experience a moderate decrease in visual acuity and even go blind in the world, where one third of the total sufferers are in Southeast Asia, including Indonesia. The World Health Organization (WHO) estimates that every 5 seconds 1 person experiences new blindness and more than 7 million people experience blindness every year (Widiyanti & Prastyani, 2020).

The cornea is the central wall of the eyeball of living creatures in the form of transparent and see-through tissue which functions as a refractive medium for the

passage of light which is transmitted to the retina, thereby enabling creatures to see objects and the surrounding environment. Porcine corneas come from certain species that are genetically similar to human corneas so that a tissue rejection reaction from the donor recipient (human) is expected to be minimal which gives hope that they can be used for a long time (National Cancer Institute, n.d.).

Blindness caused by corneal abnormalities often occurs due to trauma to the cornea, such as the entry of a foreign object during work such as a metal turner and metal welder or in the form of infection and can even be caused by a lack of vitamin A. Corneal blindness is generally reversible (can be restored.) if treated with a corneal transplant (keratoplasty) from a healthy cornea donor. Corneal transplantation is an organ transplant that has the best results among transplants of other organs in the human body because the corneal tissue is avascular (does not have blood vessels) which functions as a refractive medium for living creatures to see, thus reducing the risk of organ rejection in the person affected. given a transplant(Rashmi Singh, Noopur Gupta, 2019),(Kim, 2017).

Throughout the world, around 216.6 million people are blind, of which 4.5 million people are blind due to corneal abnormalities. Blindness sufferers caused by corneal disease mainly attack the younger population compared to other causes of blindness. Even though progress in the field of cornea transplantation has been very rapid, only 1 in 70 people who need a cornea can have a transplant to treat blindness, this is due to the many problems that can cause it, including social, political and economic problems, in a country (Rashmi Singh , Noopur Gupta, 2019).

Organ transplantation is defined as grafting or transferring part or all of a particular human organ to another human body, or can also be carried out on the same body, with the aim of replacing an organ that is not functioning properly in the organ recipient (recipient) with another human organ that is still functioning. either from

living or deceased organ donors (Organ Transplantation, n.d.). Xenotransplantation (xenos- in Greek means "foreign") is defined as grafting/transplanting organs from one species of living creature to another (Cooper et al., 2018)

The concept of xenotransplantation (transplantation of organs from animals) has been known since the 17th century by Jean Baptiste Denis (1667) by conducting blood transfusions for humans from sheep's blood. In 1824, Franz Reisinger began to create the concept of corneal transplantation from animal corneas. The first corneal transplant from a pig's eye was carried out by Richard Kissam in 1836. In 1972, Haq reported a gibbon (gibbon/macaque) corneal transplant that could last for 5 months in 50% of patients from 10 recipients (Chang Ho Yoon, Hyuk Jin Choi, 2021),(Kim, 2017).

Research on corneal transplantation from the perspective of Islamic law has begun to be carried out by previous researchers, but as far as the researchers know, previous researchers discussed according to the period of their research that corneas that were transplanted to people in need were obtained from human corneas that had expressed their consent to become corneal donors to the Eye Bank in certain countries with statements, among others, that if he dies, his corneas can be taken and given to other people who need them, while currently cornea transplantation is very advanced both in terms of surgical technology and medicine, it has even been developed from donor corneas, not just from humans. just died, even the cornea donor came from an animal, especially a pig's eye (Ratih Rinendya Putri, Frans Dany, 2016)

1. METHODS

This article is a normative descriptive research where the researcher only takes and processes data sourced from literature in the form of journals, textbooks and other representative written works related to the research topic of Maslahah At-Thufi's perspective on pig cornea transplantation as a replacement for human corneas.

2. FINDINGS AND DISCUSSION

3.1 Development of Pig Corneal Transplantation

Dr. Richard Sharp Kissam (1806-1861), a surgeon from the United States, transplanted pig corneas from 6 month old pigs to human eyes (James Dunn, male, 35 years old) for indications of corneal staphyloma, which was successful even though it was only one month old. because the transplanted pig's cornea experiences shrinkage/absorption (Kissam, 1844).

According to the Asia One report, September 6 2019, the medical team from Wuhan Union China Hospital has transplanted pig corneas to a patient who needed corneas named Huang which resulted in visual acuity reaching 6/12 (50%) which medically provided good results. if it reaches visual acuity of 6/10 (60%). The report also revealed that around 5 million Chinese people are blind due to disease in their corneas. After the success of this transplant, more than 100 people have undergone pig cornea transplants with success rates reaching normal visual acuity. Genetically, pig corneas are almost similar to human corneas compared to the corneas of other animals, besides pig corneas have the lowest risk of infection compared to other animals, thus providing a lower tissue rejection effect for donor recipients (humans) (Hasugian MR, 2019).

3.2. Scholars' Views on Organ Transplantation from Pigs

From the perspective of Muslim jurists in the Sunni tradition regarding organ transplantation. Muslim jurists allow various forms of bone grafting (autograft, allograft and xenograft) for broken bones widely. Ibn Sina in 1037 discussed this issue in Al-Kanoon 1000 years ago. In 1959, the Muftis of Egypt and Tunisia permitted, under certain conditions, the transplantation of corneas from dead people. After that, many fatwas (jurisprudence) regarding organ transplantation have been issued from various parts of the Muslim world. In Amman, Jordan, the International Council of

Islamic Jurists recognized brain death as a recognized sign of death in Islam in October 1986. In 1990 and 2003, the International Islamic Fiqh Academy and the Islamic Fiqh Academy issued fatwas on organ transplantation, paving the way for transplantation. organs from brain-dead people, which immediately started in Saudi Arabia, so that by the end of 2008 more than 3600 organs had been transplanted from brain-dead people there (Mohammed Albar, 2012).

The Indonesian Ulema Council issued a fatwa regarding organ transplantation on March 8 2019, that organ transplantation is permissible if there is no other treatment to deal with it in a syar'i manner and does not bring harm to the giver and recipient of the organ donor (Central MUI, 2019).

Aasim I. Padela and Jasser Auda as members of the Fiqh Council of North America (FCNA) in their fatwa on organ donation and transplantation stated that organ transplantation from pigs (xenotransplantation) is still controversial both in Islamic law and ethical issues, even though pig organs have benefits for replacing diseased human organs such as kidney transplants to avoid humans having to undergo dialysis (dialysis) for life (I. Padela & Auda, 2020).

Sautermeister J, Mathieu R, Bogner V in their article at the anatrdisiplinary symposium on religion and ethics concluded that Judaism, Christianity and Islam that using animals for organ transplantation (xenotransplantation) does not provide a specific prohibition on replacing and treating serious illnesses in humans who need it. organ donation but still respects those who think that this is not permissible (Sautermeister J, Mathieu R, 2015).

The Egyptian Fatwa Commission (Dār al-Iftā' al-Miṣrīya) stated that Islam places great importance on maintaining health and protecting life as in Surah Al-Maaidah verse 32: "Whoever preserves the life of one human being, it is as if he has preserved the lives of all human beings. " , states that there is no legal objection to the use of pig

heart valves for medical treatment purposes, as long as the nature of the animal tissue has been changed into a substance that is not harmful to the recipient, for example through genetic engineering, however, in an emergency where the patient's life is threatened, then use is permitted non-genetically modified pig organs. Meanwhile, Professor Amine Nesir, a member of Egypt's fatwa commission, does not see the use of pig body parts for medical purposes as a problem. He clarified that there is no doubt that eating pork is prohibited in Islam, but not the use of pig organs for human transplants (Redaktionsteam, 2023).

Apart from this, there are also some critical voices among Muslims who strongly oppose pig organ transplantation. The former secretary of Al-Azhar's fatwa council, Sheikh Jamal Qutb, explained his disagreement by stating that humans are the most noble creatures. According to Qutb, only pure components may enter or be used in the human body. In his view, medical experts must look for better alternatives and continue experimenting with other creatures from the animal world to replace pigs (Redaktionsteam, 2023).

3.3. Islamic Law Perspective with the Maslahah Ath-Thufi approach.

Islamic law can be found using two approaches, namely the language approach and the legal purpose approach for which Allah created the law. Both approaches must be carried out simultaneously, synergistically and in harmony so that Islamic law can be established and applied in human life. These two approaches are a necessity that must exist and be applied by an Islamic legal expert to establish a law, if the legal approach is only carried out from language alone then there will be an artificial legal product because there is no objective of the law itself, while if in terms of objectives law alone, it will be difficult to find the correct law because language is a medium from Allah in conveying His revelations to humans in a language that

humans understand, so that the purpose of the law will be easily understood in the correct language (Abd. Rahman Dahlan, 2010)

Ushul fiqh scholars state that the aim of the law is Maqashid Syari'ah, which means the goal of ash-Syâri' Allah SWT establishes laws for humans. The purpose of law is known and understood from the ijihad of the ulama on the verses of Allah and the Sunnah of the Prophet as a source of law. The conclusion obtained from these scholars is that God's purpose in establishing laws is for the good (al-Mashlahah) of humans in this world and the hereafter (Al-Shatiby, 2019).

There are two limits to the meaning of al-Mashlahah, namely according to language ('urf) and syara'. According to 'urf, al-Mashlahah is defined as "Causes that give birth to goodness and benefits", while the definition of al-mashlahah in Sharia is "Causes that bring and give birth to the aims (goals) of ash-Syari', related to worship and muamalah (al-'âdât)" (Nawawi, 2020).

From the various views of the scholars above, researchers will provide input regarding transplantation of pig corneas as a replacement for human corneas from the perspective of Islamic law using the Maslahah theory approach put forward by Ath-Thufi (657 – 716 H) (A. Z. Abd. Rahman Dahlan, 2023) as following: Ath-Thufi gives the syar`i meaning of Maslahah as follows:

وأما حدها بحسب الشرع فهي السبب المؤدى إلى مقصود الشارع عبادة أو عيادة

Viewed from a syar`i perspective, it is the cause(s) that brings about and gives birth to the aims (goals) of al-Syari`, both aims related to worship and muamalah (al-`adat..) From the definition above, it can be clearly seen that the benefit that Ath-Thufi means is benefit that is in line with the objectives of the Sharia', not benefit that is outside of it, or strictly speaking, not al-Maslahah that is based on reason alone.

One of the important stages of the basic stages of Ath-Thufi's thinking to arrive at the final conclusion that Maslahah is the strongest shariah argument is his assertion that al-Syaari' (Lawmaker; Allah) prioritizes the maintenance of human benefit. To explain and prove that syara' emphasizes the importance of maintaining human benefit, Ath-Thufi put forward several arguments, both general and detailed, including the proposition that Ath-Thufi put forward general reasons to prove that Allah SWT. Prioritizing human benefit in the Koran, Surah Yunus verses 57 and 58:

يَأْتِيهَا النَّاسُ قَدْ جَاءَتْكُمْ مَوْعِظَةٌ مِّن رَّبِّكُمْ وَشِفَاءٌ لِّمَا فِي الصُّدُورِ وَهُدًى وَرَحْمَةٌ لِّلْمُؤْمِنِينَ
 قُلْ بِفَضْلِ اللَّهِ وَبِرَحْمَتِهِ فَبِذَلِكَ فَلْيَفْرَحُوا هُوَ خَيْرٌ مِّمَّا يَجْمَعُونَ

"O people, indeed a lesson (the Qur'an) has come to you from your Lord, a cure for something (disease) in the chest, and guidance and mercy for the believers (57).

Say (Prophet Muhammad), "By the grace of Allah and His mercy, let them rejoice. It was better than what they put together.(58)"

According to Ath-Thufi, there are several aspects of the meaning of the two verses above which are related to Maslahah, namely, in the sentence "a lesson has come to you from your Lord", Allah SWT. emphasizes the importance of learning (al-wa`zh) for humans. In it lies the greatest human benefit. Because with this al-wa`zh Allah prevents humans from destruction and directs them to the right path. Meanwhile, Allah SWT. gives the Koran the title of healer for diseases in the chest), namely a cure for diseases of doubt and so on. Likewise with the predicates of al-huda and al-rahmah that Allah gave to the Koran. The function of these two predicates is of great benefit to humans. Meanwhile, in verse 58 above, Allah gives the characteristics of Allah's grace and mercy to the Koran. What is born from these two qualities is of course a great benefit. Then in the continuation of this verse, Allah commands humans to be happy. This joy is due to great benefits. Meanwhile, at the end of verse 58, Allah

emphasizes that the Koran is better than what humans collect, whereas what humans collect is usually that which brings goodness to them. In this way, the Al-Quran and its benefits are the pinnacle of benefit (A. Abd. Rahman Dahlan, 2022).

As for what is more detailed, Ath-Thufi stated the explanation and reasons that Allah prioritizes maintaining the welfare of creatures, both from the Al-Quran, Hadith, ijma', and logic, among others, in the Al-Quran, Al-Baqarah 179 and Al-Baqarah 179. Mā'idah [5]:38

وَلَكُمْ فِي الْقِصَاصِ حَيَوةٌ يَا أُولِي الْأَلْبَابِ لَعَلَّكُمْ تَتَّقُونَ

In that Qisas there is (a guarantee of) life for you, O people of understanding, so that you may be pious. Al-Baqarah [2]:179

وَالسَّارِقُ وَالسَّارِقَةُ فَاقْطَعُوا أَيْدِيَهُمَا جِزَاءً بِمَا كَسَبَا نَكَالًا مِنَ اللَّهِ وَاللَّهُ عَزِيزٌ حَكِيمٌ

Men and women who steal, have their hands cut off as retribution for what they have done and as a punishment from Allah. Allah is Mighty, Most Wise. Al-Mā'idah [5]:38

From the two verses above, Ath-Thufi stated that the verses above clearly show that Allah cares for the benefit of humans, both in the areas of their lives, property and honor. More generally, he emphasized that there is not a single verse of the Koran that does not contain benefits.

The arguments originating from al-Hadith include:

لا يبيع بعضكم على بيع بعض

"Some of you should not buy and sell on the sale and purchase of others."

Meanwhile, the argument that originates from ijma', Ath-Thufi explained, except for the Zahiriyah ulama, all ulama make benefit (in the sense of achieving

benefits and avoiding harm) as *'illat* in determining the law. He further said that the person who used *al-Maslahah* the most as a legal argument was Imam Malik. In this case, Imam Malik uses *Maslahah al-murlah*. Ath-Thufi emphasized that actually it was not only Imam Malik who used *Maslahah al-murlah*, but all the *ulama*. It's just that not all of them explicitly state that they use it. Without going into further detail, he said, *ulama* who refused to make *ijma'* as evidence also used *Maslahah* as an argument. According to him, the provisions of *ijma'* which are based on *Maslahah*, include, among other things, the permissibility of carrying out *bai` al-salam* (reliable buying and selling) and *al-ijarah* (wages) transactions, even though these two transactions are contrary to the principle of *qiyas*. While the argument comes from logic, Ath-Thufi said that there can be no doubt, Allah SWT. maintaining human benefit, both in general and in particular. General benefits are in terms of creation and human life. Meanwhile, the specific benefit is in terms of their afterlife interests (A. Z. Abd. Rahman Dahlan, 2023).

To maintain human benefit in general, Allah SWT. created humans in the form and completeness of body parts that enable humans to achieve their benefits. Next, Allah SWT. created the heavens and the earth and everything in them, so that humans could live and enjoy their lives on earth. To maintain human benefit in the afterlife, Allah gives guidance (*al-huda*) to humans and directs them to the *ukhrawi* path, so that humans can achieve the happiness of heaven. After Allah takes care of human benefit from creation, life, until the benefit of the afterlife, it would be impossible, according to Ath-Thufi, if Allah ignored human benefit in the field of Sharia law. He further argued that because benefits in Sharia law are more general in nature, they are more important to maintain. Benefits in Sharia law are part of the benefits of human life. With this benefit, human property, blood and honor will be preserved. Without the maintenance of benefits in sharia law, human life becomes meaningless (A. Z. Abd. Rahman Dahlan, 2023).

Ath-Thufi also stipulates the requirement that a benefit which is used as the basis for determining sharia law in the field of muamalah must not conflict with three things, namely a greater benefit, the provisions of the text or *ijma'* which give rise to pure harm to the object, and the arguments of the text. which are special, even though only some of them give rise to harm (Hudiyani, 2019).

3.4. Scope of Implementation of Maslahah Ath-Thufi

To describe the scope of application of Maslahah as the strongest *syara'* argument, Ath-Thufi first made a division of Maslahah by reviewing it in terms of al-Syaari's objectives in establishing law. In this case, Ath-Thufi divides Maslahah into two parts, namely Maslahah which is the right of Allah and which is the right of humans. Maslahah that is due to Allah is that which is related to worship and which is equated with it. Meanwhile, al-Maslahah which is a human right is that which is related to muamalah and which is equated with it (A. Z. Abd. Rahman Dahlan, 2023).

In another part, Ath-Thufi explains the reasons for the difference between worship as God's right and muamalah as a human right: Worship is God's special right. It is impossible to know His rights, whether in terms of quantity, form, time or place, except based on information from the Sharia itself. Therefore, humans only implement the provisions set by al-Shari`. In other words, there is a distinction between worship which is the right of Allah and muamalat which is the right of servants, because the benefits contained in the field of worship are hidden and beyond the scope of human reason and habits, while the benefits contained in the field of muamalah can be known. humans through customary law (habit; experience) and reason (A. Abd. Rahman Dahlan, 2022).

3.5. Maslahah as the Strongest Proposition of Sharia'

In the previous description, the general nature of the Maslahah concept that Ath-Thufi intended was described. Likewise regarding the arguments, both from the

Al-Quran, al-Hadith, ijma', and logic, which show that al-Syaari' prioritizes human benefit in the field of Sharia law. Apart from that, it has also been explained that the scope of Maslahah as a shariah proposition is in the field of muamalah (Munadi, 2020). He further argued that in the field of muamalah, Maslahah is not just one of the syara' propositions, but is the strongest syara' proposition among the other syara' propositions (A. Z. Abd. Rahman Dahlan, 2023).

Ath-Thufi put forward the following argument from the Hadith:

حَدَّثَنِي يَحْيَى عَنْ مَالِكٍ عَنْ عَمْرِو بْنِ يَحْيَى الْمَازِنِيِّ عَنْ أَبِيهِ
أَنَّ رَسُولَ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ قَالَ لَا ضَرَرَ وَلَا ضِرَارَ

Yahya told me from Malik from 'Amru bin Yahya Al Muzani from his father that the Messenger of Allah ﷺ said, "You must not bring harm to yourself and cause harm to others." (HR. Imam Malik no. 1234)

Furthermore, Ath-Thufi said that لَا ضَرَرَ وَلَا ضِرَارَ consists of two sentences, namely "dharara" which means: Someone brings harm to others absolutely. Meanwhile, the word "dhirara" means that each party intends to cause harm to the other party. In other words, the first part of the Hadith disclaims everything that is harmful and detrimental to other people which originates from someone unilaterally, while the second part disclaims everything that is harmful and detrimental which is caused by each of the two parties (A. Z. Abd. Rahman Dahlan, 2023).

The verses from the Koran and Hadith above, in addition to several other propositions, according to Ath-Thufi, all clearly show that religious rules are established to produce benefits and benefits. If the syara' does not deny al-darar and al-dirar, of course it will conflict with the syara' information as mentioned above.

Meanwhile, the existence of contradictions in sharia information is an impossibility (Hudiyani, 2019).

From the context of the Hadith لَا ضَرَرَ وَلَا ضِرَارَ Ath-Thufi is of the opinion that the position of this Hadith is at the level that it must be practiced. The nature of the law of being obliged to practice it means that it is mandatory to prioritize it over all other Islamic propositions that conflict with it, and the meaning of this Hadith can be seen from two sides. From the perspective of nafy (negation) according to syar'i, all harm must be denied apart from those that are specifically excluded. Meanwhile, from the other side, the meaning of nafy automatically also contains the meaning of isbat (affirmation), namely the obligation to maintain the benefit (ri`ayah al-Maslahah)(A. Abd. Rahman Dahlan, 2022).

Maslahah is the strongest argument among all the syara' propositions, especially the text and ijma' propositions. Meanwhile, to prioritize Maslahah over ijma' and texts, two elements must be fulfilled, namely, if there is a conflict between the arguments of Maslahah and texts and ijma' as long as both are not supported by specific texts, and the conflict occurs in issues related to muamalah, not in field of worship (Sutikno, Kurniati, n.d.).

3.6. Maslahah Ath-Thufi's Perspective on Pig Corneal Transplantation

Ath-Thufi stated that Maslahah is the strongest Sharia' argument from other Sharia' propositions as long as it meets several requirements, namely if there is a conflict between Maslahah and the text and ijma' which is not supported by specific texts, then in the case of pig cornea transplantation as a replacement There are no texts that specifically state that it is haram, only general texts that state that pork is haram.

Likewise, Ath-Thufi stated that Maslahah can be used as a basis for determining sharia law in the field of muamalah as long as it does not conflict with greater benefits, and with the provisions of the text or ijma' which give rise to pure

harm to its object, as well as the postulates of the text which are special in nature. even though only some of them cause harm, in the case of transplanting pig corneas as a replacement for human corneas, the recipient of the pig cornea transplant will get greater benefits because they can see again, even though it can cause smaller harm in the form of transplant failure due to rejection of the cornea tissue. transplanted pigs, however, can be overcome by removing and discarding the corneas of the pig's eyes.

3. CONCLUSION

Transplantation of pig corneas as a substitute for human corneas to treat blindness is an alternative to overcome the high rate of blindness due to corneal abnormalities, whereas there are very few corneas from humans. The Sharia proposition states in general that pork is haram but does not specifically state the law regarding pig corneas to be used for human benefit. The Islamic Law perspective with the Maslahah approach put forward by Ath-Thufi provides the view that transplantation of pig corneas as a replacement for human corneas is permissible as long as it provides Maslahah that is higher than the harm it causes.

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