

The Polemic of Pig Kidney Xenotransplantation for Human Life Sustainability: An Overview of Islamic Legal Thoughts between *Halal-Haram* Principle and the Concept of *Mashlahah*

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Abstract

End-Stage Renal Disease (ESRD) cases continue to increase. However, the increase in cases of ESRD is not matched by the supply of kidneys as a condition for being able to perform a kidney transplant. Although this is not the only way to treat this case, it is only with a kidney transplant that the patient can truly recover. New York University Langone's success in xenotransplantation procedure using a genetically engineered pig kidney has become a new polemic in Islamic law issues. According to Islamic law, a pig has forbidden legal status (*haram*). This article analyzes the practice of xenotransplantation of pig kidneys in the human body using the concept of "*Halal-haram*" by Yusuf al-Qaradawi and "*Mashlahah*" by Harun Sencal & Mehmet Asutay. This study is a qualitative method using a library research approach. This study found that it is permissible to do prohibited things during an emergency (*daruriyat*). In addition, in the realm of *maslahah*, *hajiyyat* cannot beat *daruriyat*. Finally, summing up from these two Islamic scholars' thoughts indicates that pig kidney xenotransplantation is prohibited as long as other alternatives to treat ESRD patients are available. Some options might be taken, such as hemodialysis and blood filtration through continuous ambulatory peritoneal dialysis (CAPD); therefore, it cannot be considered an emergency.

Keywords: Pig kidney xenotransplantation, Islamic legal thoughts, Pig Kidney.

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Introduction

Every year, the need for kidney transplants in the world is increasing. In America, there are approximately 90,000 patients who need a kidney transplant. However, this is not supported by the availability of the kidney itself. Of 90,000 patients, only 23,000 kidneys can be fulfilled. Meanwhile, in Indonesia, out of 101,000 patients, only about 15 percent had kidney transplants.¹ Kidney transplantation is applied end-stage renal disease (ESRD) patients or end-stage chronic kidney disease. The increasing number of ESRD cases that are not matched by the availability of kidney donors makes patients have to wait years for their turn to donate kidneys. During the long wait, not a few patients died due to deteriorating medical conditions. In fact, according to research, only about 78% of patients with chronic kidney failure can survive for one year, 57% for three years, and even only 42% for five years.² Most patients waiting for kidney donors are potential recipients who meet the criteria.³

ESRD or what is commonly called chronic kidney failure can be treated in three ways.⁴ The first is hemodialysis, the process of cleaning blood that is no longer needed by the body by filtering it from outside the

¹Astika, "Selangka Apa Donor Organ, Sampai Harus Pakai Ginjal Babi?," March 3, 2022, <https://health.detik.com/berita-detikhealth/d-5776737/selangka-apa-donor-organ-sampai-harus-pakai-ginjal-babi>.

² "Annual Data Report," USRDS, accessed March 3, 2022, <https://www.usrds.org/annual-data-report/>.

³ V. Casingal et al., "Death on the Kidney Waiting List--Good Candidates or Not?," *American Journal of Transplantation: Official Journal of the American Society of Transplantation and the American Society of Transplant Surgeons* 6, no. 8 (August 2006): 1953-56, <https://doi.org/10.1111/j.1600-6143.2006.01399.x>.

⁴ Sekar Ratih Widowati, "Tingkat Kualitas Hidup Pasien Gagal Ginjal Kronik Terapi Hemodilisis," *Jurnal Kesehatan Masyarakat* 6, no. 2 (2011): 108.

body. This therapy is done two to three times a week. The second is continuous ambulatory peritoneal dialysis (CAPD), which is the process of filtering blood through the abdomen. This therapy is carried out 2-4 times daily at the patient's home independently. And the last is the kidney transplant itself. However, of these three therapies, only kidney transplantation can restore the patient's total kidney function. This is because the other two methods only cover part of the kidney function and not all of it, so the patient does not fully recover, and his medical condition gradually declines.

Therefore, a kidney transplant is a necessary thing to do. Scientists continue to try to find a way out of the lack of kidney availability. Until October 20, 2021, scientists succeeded in conducting experiments on transplanting pig kidneys into brain-dead humans at the NYU Langone Health medical center in New York City.⁵ In the experiment, a pig was genetically engineered to no longer contained the alpha-gel that could trigger rejection in the body. As a result, the kidney can function normally like a normal human kidney. This is undoubtedly good news in the medical world, which has long struggled to get a kidney donor.

The religious aspect told that the permissibility of transplanting pig kidneys into the human body is still questionable. As we all know, Allah clearly forbids. Allah has mentioned this several times in the Qur'an, one of which is the surah al-Maidah verse three which reads "It is forbidden for you to consume carrion, blood, pork, and

⁵ Ika Nur Cahyani, "Ahli Bedah AS Berhasil Menguji Transplantasi Ginjal Babi Ke Manusia," December 28, 2021, <https://www.tribunnews.com/internasional/2021/10/20/ahli-bedah-as-berhasil-menguji-transplantasi-ginjal-babi-ke-manusia>.

animals slaughtered without the name of Allah".⁶ Several similar discussions, such as the use of pig gelatin and the AstraZeneca vaccine containing pork, have been carried out by scholars. The results vary, some are prohibited and some are allowed. By considering *maqasid al-sharia and al-qawa'id al-fiqhiyyah*, the scholars try to provide results of ijtihad decisions that can benefit for society in general.

The discussion on xenotransplantation of pig kidneys becomes very important because the government is currently implementing regulations on halal products that cover not only food, but also various other sectors of life such as fashion, tourism, media, cosmetics, as well as medicine, and medical. In the Law. no. 33 of 2014, genetic engineering has become one of the government's focuses on halal product policies.⁷ In this discussion, the author will analyze the law of transplanting pig kidneys into the human body using the analytical thinking of *al-qawa'id al-fiqhiyyah*, especially the rules and principles of Yusuf Al-Qaradawi's halal haram in his book *al-Halal wa al-Haram fi al-Islam* which were these rules focus on discussing the halal or haram of a thing⁸ and the concept of *maslahah* proposed by Harun Sencal & Mehmed Asutay in *Rethinking Halal; Genealogy, Current Trends, and New Interpretations*.⁹

In this study, the author will use a qualitative method with a literature study approach. The author uses a qualitative method to carry out an in-depth assessment

⁶ Al-Maaidah (5): 3

⁷ Musyfikah Ilyas, "Sertifikasi Dan Labelisasi Produk Halal Perspektif Maslahat," *Jurnal Al-Qadau: Peradilan Dan Hukum Keluarga Islam* 4, no. 2 (2017): 362.

⁸ Yusuf al-Qaradhawi, *Al-Halal Wa al-Haram Fi al-Islam* (Kairo: Maktabah Al-Wahbah, 1997), 20–38.

⁹ Harun Sencal and Mehmet Asutay, *Rethinking Halal: Hegemony, Agency, and Process* (Leiden: Brill, 2021), 32–38.

and analysis of the issue of pig kidney transplantation into the human body.¹⁰ The data used are primary and secondary sources. Primary data sources are the book by Yusuf al-Qaradawi entitled *al-Halal wa al-Haram fi al-Islam* and the book *Rethinking Halal: Genealogy, Current Trends, and New Interpretations*. Supported by secondary data sources such as the book *al-Asybah wa al-Nadzair, Idhoh al-Qawa'id al-Fiqhiyyah, and Qawa'id al-Ahkam fi Masalih al-Anam*. There are four steps and analysis techniques carried out by the author in this study. The first is to perform data reduction. The second is to display data. The third is data interpretation. And the last is to make conclusions.

The Kidneys Transplantation and Xenotransplantation

Kidney transplantation has been regulated in the Regulation of the Minister of Health (*Permenkes*) Number 38 of 2016 concerning the implementation of organ transplants.¹¹ In this regulation, what is meant by transplantation is the transfer of organs from a donor to a recipient for healing and restoration of the recipient's health problems. The regulation also explains in detail starting from which parties are related to organ transplantation, procedures for organizing organ transplants, donor and recipient requirements, and so on. In other words, this organ transplant, especially the kidney, already has standard rules in Indonesia. This is also confirmed by the MUI that kidney transplants can be done as long as it is voluntary and not on the basis of

¹⁰ Patton Michael Quinn, *Qualitative Research & Evaluation Methods*, 3rd ed. (Thousand Oaks: Sage Publications, 2002), 9.

¹¹ "Peraturan Menteri Kesehatan Republik Indonesia Nomor 36 Tahun 2016 Tentang Penyelenggaraan Transplantasi Organ" (n.d.).

buying and selling. Because they think that the kidney is not a human right, it should not be traded.

As mentioned in the introduction, kidney transplantation is one of three therapies that can be used to treat patients with end-stage renal disease (ESRD) or what we call kidney failure. Kidney transplantation is considered to be the best and most effective way to treat patients with kidney failure. Because the other two methods only partially improve kidney function, the benefits are not full and the patient will gradually experience a decline in health.

Different from transplantation, xenotransplantation is the transplanting tissues or organs taken from animals to human tissues or organs that are no longer function¹² In other literature, a similar thing is called heterotransplantation. Basically, xenotransplantation has a greater resistance when applied because donors and recipients have a large difference. So that the implementation must be done carefully and thoroughly so as not to have a negative impact on humans in accordance with the standards applied by the National Health and Medical Research Council (NHMRC).¹³ The process before being tested from animals to humans first tested on animals with animals. If it goes well, it will be tested on animals to humans.

The selection of pigs as a source of organ donors is not an arbitrary choice. It has undergone a long process and deep consideration to be used as a solid foundation. Scientifically, pigs have organs that are almost the same as humans, from the liver to the kidneys, which are almost

¹² Ervin Nazardi, "Tinjauan Hukum Islam Terhadap Praktek Xenotransplantasi Organ Babi Ke Manusia", Skripsi, (Jakarta: UIN Syarif Hidayatullah, 2010)," n.d., 2.

¹³ Nazardi, 3.

identical in size and function. Based on their availability, pig organs are much easier to obtain than organs obtained from other primates or humans.¹⁴

However, it must be recognized that pigs are the most profitable and possible source of donors. This is because pigs reproduce faster than other animals. The levels of pathogens that can cause disease in their hosts carried by pigs are also lower than in primates such as monkeys or monkeys. In addition to pigs having a metabolism that is almost similar to humans, genetic engineering can also be done in pigs to reduce the risk.¹⁵

The number of cases of chronic kidney failure in the world is not matched by the availability of kidneys. This has made scientists for years look for kidney alternatives that can be obtained from other than humans. Many studies on the use of the kidneys of primates because they are considered to have organs that are most similar to humans. However, the practice of utilizing primate kidneys has not found a bright spot. In 1963 the practice was applied to several patients and only one of the patients survived for up to 9 months before finally dying.¹⁶ After years of research, recently successfully carried out trials of pig kidney transplantation in the human body. As a result, the kidneys can function properly and can excrete urine like human kidneys.

This is such a happy news from the medical view because if the pig kidney transplant goes well it will be able to reach the needs of kidney donors in the world. So that cases of chronic kidney failure in the world will be resolved

¹⁴ Nazardi, 3.

¹⁵ Nazardi, 33–34.

¹⁶ David KC Cooper et al., “Clinical Pig Kidney Xenotransplantation: How Close Are We?,” *Journal of the American Society of Nephrology* 31, no. 1 (2020): 12.

more quickly. Meanwhile, from a humanitarian perspective, this news is certainly also a positive thing that can save many lives and reduce the death rate because many patients died while waiting to get a kidney donor.

Different from medical and humanitarian perspective, there are at least four verses of the Qur'an that forbid us to utilize pigs¹⁷, which are as follows;

“Indeed, He only forbids you carrion, blood, pork, and (meat) of animals slaughtered by (naming) other than Allah. But whoever is forced to (eat it), not because he wants it and does not (also) transgress, then there is no sin for him. Indeed, Allah is Forgiving, Most Merciful.”¹⁸

“Forbidden to you (eating) carrion, blood, pork, and (meat) animals slaughtered not in (name) Allah, which strangled, hit, fell, went into a horn, and was attacked by a wild animal, except for those you had slaughtered. And (forbidden) that which is slaughtered for idols. And (it is also forbidden) to draw fate with *azlam* (arrows), (because) it is a wicked act”.¹⁹

“Say, "I do not find in what was revealed to me, anything that is forbidden to eat it for those who want to eat it, except the flesh of a dead animal (carcass), flowing blood, pork - because all of it is dirty - or an animal slaughtered not on behalf of (name)) God. But whoever is forced not because he wants and does not exceed (the emergency limit) then indeed, your Lord is Forgiving, Most Merciful.”²⁰

¹⁷ Tamlikha Tamlikha, “Keharaman Babi Dalam Al-Quran: Telaah Penafsiran Ayat-Ayat Keharaman Babi Dengan Pendekatan Sains” (PhD Thesis, UIN Sunan Ampel Surabaya, 2017), 26–29.

¹⁸ Surah al-Baqarah (2): 173.

¹⁹ Surah al-Ma'idah (5): 3.

²⁰ Surah al-An'am (6): 145.

“Indeed, Allah only forbids you carrion, blood, pork, and (animals) slaughtered by (naming) other than Allah, but whoever is forced (to eat) not because he wants it and does not (also) transgress, then indeed, Allah is Forgiving, All-Merciful.”²¹

These verses clearly state the pig is forbidden either the pork (*lahm al-khinzir*) or the all of it parts. Although Dawud az-Zahiri said that the forbidden one is the pork (*lahm al-khinzir*) due to statement of these verses that only mention the pork not the pig, Jumhur Ulama said the word “pork” is not only addressed to pork itself, but all of the pig’s parts.²² It reminds us to the principle in *Ilm al-Bayan* that told “*dzikrul juz wa irodatu al-kull*” or mention some and mean the whole.²³

Yusuf al-Qaradawi’s Halal-Haram Principle

Yusuf al-Qaradawi is the one of various scholars that concentrate in Islamic Law studies. Halal studies cannot be separated from Islamic Law because there are discussion that require researchers to be able to understand fiqh. Yusuf al-Qaradawi has connected these two studies through his book entitled *al-Halal wa al-Haram fi al-Islam*. In his book, Yusuf al-Qaradawi formulated eleven basic principles regarding halal and haram in Islam. The eleven principles are as follows:²⁴

²¹ Surah an-Nahl (16): 115.

²² Badrah Uyuni, Mohammad Adnan, and Muhibudin Muhibudin, “DAMPAK KONSUMSI BABI DALAM PEMBENTUKAN KARAKTER DAN TERKABULNYA DOA,” *Tahdzib Al-Akhlaq: Jurnal Pendidikan Islam* 1, no. 2 (2018): 55.

²³ Hanik Mahliatussikah, “PEMBELAJARAN QASHĪDAH WU’UD MINALĀSHIFAH KARYA MAHMUD DARWISH MELALUI KAJIAN POSTKOLONIAL,” *Prosiding Konferensi Nasional Bahasa Arab* 1, no. 1 (2015): 139.

²⁴ al-Qaradhawi, *Al-Halal Wa al-Haram Fi al-Islam*, 17.

- a. *al-Ashlu fi al-asyya 'al-ibahah* (the original law of everything is permissible)
- b. *al-Tahlil wa al-tahrim haqq Allah wahdah* (allowing and forbidding is the right of Allah alone)
- c. *Tahrim al-halal wa tahlil al-haram qarin al-shirk* (forbidding what is lawful and justifying what is unlawful causes shirk)
- d. *al-Tahrim yatba'u al-khabtsa wa al-darar* (in the forbidden there is evil and danger)
- e. *Fi al-halal ma yughni 'an al-haram* (in the halal there is something that avoids the haram)
- f. *Ma adda ila al-haram fahuwa haram* (anything that leads to haram is haram)
- g. *al-tahayul 'ala al-haram haram* (tricking with the haram is haram)
- h. *an-Niyat al-hasanah la tubarriru al-haram* (good intentions cannot justify what is unlawful)
- i. *Ittiqo'u al-syubhat khayyata al-wuqu' fi al-haram* (abstaining from syubhat for fear of falling into the forbidden)
- j. *al-Haram haramun 'ala al-jami'* (something that is haram then haram for all humans)
- k. *al-Darurat tubihu al-mahdzurat* (a state of compulsion to allow what is prohibited)

Of the eleven principles, not all of them will be used by the author to analyze the issues in this research. This is because it is adapted to the theme of this discussion. The principles and rules of Yusuf al-Qaradawi that will be used by the author are *al-Tahrim yatba'u al-khabtsa wa al-darar*, *an-Niyat al-hasanah la tubarriru al-haram*, *al-Haram haramun 'ala al-jami'*, *Fi al-halal ma yughni 'an al-haram*, and *al-Darurat tubihu al-mahdzurat*. With these rules and principles, the author will analyze the law of pig kidney transplantation in humans.

1. *al-Tahrim Yatba'u al-Khabtsa wa al-Darar*

The first rule that we use from the formulation of the principles of Yusuf Al-Qaradawi is *al-tahrim yatba'u al-khabtsa wa al-darar*²⁵ which means something that is forbidden there is something bad and dangerous. Allah as the owner of the universe has the authority to justify and forbid everything. Humans are not allowed to go against the provisions of Allah. However, behind Allah's authority to justify and forbid all things, Allah has several plausible reasons for the benefit of mankind. So what Allah forbids is definitely bad, while what Allah has permitted is definitely good.²⁶

Indeed, there are some of God's prohibitions against good things for the Jews, but this is nothing but a form of sanction from God for the actions of the Jews who oppose His provisions. This is found in Surah Al-An'am (6) verse 146 and also in Surah An-Nisa '(4) verses 160-161. As for after, namely in the Shari'a of the Prophet Muhammad the prohibition was lifted. So in Islam, it is common knowledge that in one thing that is forbidden there is something bad and dangerous. So that four conclusions can be drawn, namely: first, that something that is purely dangerous is therefore haraam; secondly, something that is purely beneficial is lawful; thirdly, something whose level of danger is greater than its benefits is haraam; and fourth, something whose level of benefit is greater than its danger is lawful. We can refer to Allah's prohibition on khamr and gambling in Surah Al-Baqarah (2) verse 219.

²⁵ al-Qaradhawi, 28.

²⁶ Mian N. Niaz and Munir M. Chaudry, *Handbook of Halal Food Production: Halal Food Laws and Regulations* (New York: CRC Press, 2019), 8.

Regarding the ugliness and danger of something that is forbidden by Allah, there is no obligation for Muslims to know it in detail. Because it could be a group of people may be scientists or medical experts can know the dangers of this but other groups outside of scientists and medical experts cannot know it because of various limitations. It is also possible that at present the dangers have not been revealed, but in the future, thanks to the help of technology, all the dangers, and ugliness contained in a portion of food will be revealed. Therefore, Muslims are commanded to always obey God's commands whatever it is as in the letter Al-Baqarah (2) verse 285 which reads "*sami'na wa ata'na*" meaning we hear and we obey.

Likewise, God's prohibition on humans to consume pork is in some of the verses that have been described above. At first, the reason behind God's prohibition on pigs was not discovered until it was by scientists that it turned out that pork contains tapeworms, alpha-gel content, viruses such as Porcine Endogenous Retrovirus, and several other substances that can threaten the health of the human body.²⁷ In the verses above, the editor used is *lahm al-khinzir* or pork. This is because what is most often consumed from pig is meat. However, what is prohibited is of course not only the meat, but all parts of the pig, in accordance with the rules of *dzikrul ba'dh wa irodatu al-kull* or mentioning part of it but what is intended is the whole.

So from this rule, it can be concluded that xenotransplantation of pig kidneys in humans is unlawful. Because the process uses pig body parts, the prohibition of which is clear, supported by the disclosure

²⁷ al-Qaradhawi, *Al-Halal Wa al-Haram Fi al-Islam*, 28–30.

of harmful substances and viruses contained in the pig's body.

2. *an-Niyat al-Hasanah La Tubarriru al-Haram*

The second rule is *an-niyat al-hasanah la tubarriru al-haram*,²⁸ which means that good intentions cannot justify something that is unlawful. This rule is in tune with one of the rules in the *al-kulliyah al-kubro* rule which many scholars refer to in diversifying a law, namely the *al-umuru bi maqasidiha* rule or everything depends on the intention, this rule is absorbed from the hadith of the Prophet "*Innama al-a'malu bin-niyyaat*" (all actions depend on intentions). Sheikh Yusuf Al-Qaradawi explained this rule in the discussion of *an-niyat al-hasanah la tubarriru al-haram*. He explained that based on good intentions, actions that were originally permissible and just habits can be valued as worship and obedience to Allah. So if someone eats with the intention of strengthening the body and maintaining the continuity of life in order to carry out his obligations to Allah, then drinking and eating is worship to Allah. It was narrated from Imam Thabrani that the Messenger of Allah said: "Whoever works to avoid begging, and to support his family, and to help his neighbors, then he will meet his Lord while his face is like the moon on the night of Badr".²⁹

Sheikh Yusuf Al-Qaradawi explained that these actions could be of worship value if the original law was permissible. As for actions whose original law is unlawful, then the law will remain unlawful even though the intentions and goals are good. Islam will not approve if its people use the forbidden method for the sake of even a noble goal. Because Islam is very concerned about

²⁸ al-Qaradhawi, 33.

²⁹ HR. Thabrani

and maintains both the ways and the goals of a Muslim. So if a Muslim wants to achieve a noble goal, he must also use it the right way.³⁰ It is the same if we draw this view on the polemic of xenotransplantation of pig kidneys. Even though the xenotransplantation was carried out on the pretext of humanity, by referring to al-Qaradawi's explanation above, it was still considered unlawful because the method was not justified and had violated God's provisions.

3. *al-Haram Haramun 'Ala al-Jami'*

The third rule is *al-haram haramun 'ala al-jami'*³¹ which means something that is forbidden then the prohibition applies to all mankind. So it can't be that something is haram only for Indonesian citizens but halal for Saudi Arabian citizens. Nor does Allah forbid something only for the white people but is allowed for the black class. Nor is it forbidden only for commoners but lawful for officials. Even Sheikh Yusuf al-Qaradawi said that there is no specificity of a prohibition only for Muslims but for all mankind including non-Muslims because Allah is the owner of the universe and made the norm for it. So that what is lawful by Allah is lawful for all mankind and what is forbidden by Allah is unlawful for all mankind.³²

One case that we can learn from this discussion is theft. Islami forbid stealing, whether the person who does it is a Muslim or not, whether the property is owned by a Muslim or not, a thief will still be given a penalty regardless of the height and position. This is what the Prophet Muhammad exemplified in his saying "If Fatimah Binti Muhammad stole, I would cut off her

³⁰ al-Qaradhawi, *Al-Halal Wa al-Haram Fi al-Islam*, 33.

³¹ al-Qaradhawi, 35.

³² al-Qaradhawi, 35.

hand".³³ It happened at the time of the Prophet there was a Muslim who stole and then hid the stolen goods in the house of a Jew. The person alleges that it was a Jew who stole and then the relative of a Muslim asked the Messenger of Allah to punish someone even though they knew that someone. The Prophet almost confirmed the accusation but then hesitated until a revelation came down which revealed the perpetrator of the theft, namely An-Nisa' (4) verses 105-109.³⁴

From this case, we can conclude that the Prophet Muhammad justified the existence of sanctions for Jews who violated the *Shari'a*. It's just that the theft was not proven true, so one of the Jews did not get any sanctions. The story also implied that if the theft had been true then the Prophet Muhammad would have punished the Jews. In addition to the verse above, many other verses confirm that Allah's *Shari'a* applies to all groups without being selective. So we can conclude from this rule that the prohibition on the use of pig as a kidney donor in the xenotransplantation process applies to all human beings on earth. Not only for Muslims but also for non-Muslims.

4. *Fi al-Halal Ma Yughni 'an al-Haram*

After previously discussing the three rules that reinforce the prohibition of pig kidney xenotransplantation in the human body, then we will discuss two rules that provide solutions for patients experiencing end-stage renal disease (ESRD) or what we usually call kidney failure. The first is the rule of *fi al-halal ma yughni 'an al-haram*³⁵ which means that in something lawful there are things that prevent it from being unlawful. The point is that Islam always provides

³³ Sahih Bukhari, 3475.

³⁴ al-Qaradhawi, *Al-Halal Wa al-Haram Fi al-Islam*, 36.

³⁵ al-Qaradhawi, 30.

convenience and a way out for its adherents that nothing is forbidden unless it has been provided by the bride. That God always provides a substitute as compensation for something forbidden so that humans no longer need to use the haram. He, Sheikh Yusuf Al-Qaradawi, quoted the opinion of Ibn al-Qayyim, describing several examples of things that Allah had forbidden and which had been provided by his successor. Among the examples of Allah replacing the forbidden with the lawful is the lottery of fate with arrows (*istsiqom bil azlam*) is replaced with *istikharah* prayer, usury is replaced with trade, gambling to get money is replaced with useful competitions, silk is replaced with wool, cotton, and so on. so on, adultery is replaced with marriage, drinking intoxicating drinks is replaced with various delicious and healthy drinks, and so on.³⁶

So that it can be concluded that Allah will not forbid his servant in one thing unless Allah has provided a way out with something else. Allah does not want his servant to be in trouble, but what he wants is ease. Likewise in the case of xenotransplantation of pig kidneys in the human body. It is forbidden not to do this without providing a solution and a way out. Namely by transplanting human kidney organs. This is allowed as long as the donor gives his kidney voluntarily without any coercion. Moreover, it is traded, most scholars agree to prohibit it because some say that kidney organs are not a property that can be traded, such as land, houses, vehicles, and so on. As long as the donor and recipient are medically compatible, it's okay to give one of their kidneys to someone else. This is supported by research that human kidneys can still function until their kidney

³⁶ al-Qaradhawi, 31.

levels are in the range of 10%. By donating his kidney, that person will certainly care more and love his body so that he will live a healthier lifestyle than before.

5. *al-Darurat Tubihu al-Mahdzurat*

The last rule in the discussion is *al-daruratu tubihu al-mahdzurat*³⁷ which means the condition is forced to allow doing things that are prohibited. This rule is a derived rule from one of the *kulliyah kubro* rules, namely *al-dararu yuzalu*, namely that harm must be removed which is absorbed from the words of the Prophet "*La Darara wa La Dirara*"³⁸ which means you should not harm yourself and others. This *al-dararu yuzalu* rule derives several other rules, the author will only convey two rules related to this study, along with their explanations.

First, the rule of *ad-daruratu tubihu al-mahdzurat*,³⁹ the purpose of this rule is that if we are in a condition of being forced to do something unlawful to maintain the greater benefit which is summarized in the *maqasid al-shari'ah* and there is no other way than doing the forbidden then it is allowed. For example, drinking *khamr* when the condition is very thirsty can threaten his life while there is no more drink other than *khamr*, or dismantling the grave because the body is buried in a condition that has not been bathed or does not face the Qibla. Imam Suyuthi in his book *al-Asybah wa al-Nadzair* requires that the level of prohibition should not exceed the emergency condition. An example is when a corpse is buried without using a shroud, it does not need to be dug up again to be given a shroud because

³⁷ al-Qaradhawi, 37.

³⁸ (HR. Ibn Majah and Ad-Daruquthni)

³⁹ Jalaluddin al-Suyuti, *Al-Asybah Wa al-Nadzair Fi Qawa'id Wa Furu' Fiqh As-Syafi'iyah* (Beirut: Dar al-Kutub al-'Ilmiyyah, 2015), 133.

maintaining the honor of the corpse is more important than just a shroud that can be replaced with soil as a cover for the body.⁴⁰

Second, the rule of *ma ubiha li al-darurah yuqaddaru biqodriha*,⁴¹ means that a prohibition that is allowed for emergency reasons is only allowed to do what is sufficient. An example is a person who is in an emergency is allowed to eat carrion in sufficient quantity for him to survive death and is not allowed to eat it until he is full unless the distance he has to travel to get the halal one is very far which requires him to be fortunate enough to fill his stomach to survive until his destination. the. It is no less important that we pay attention to the various conditions that allow or forbid us to do something unlawful. Imam Suyuti divides it into five conditions as follows:⁴²

- a. *al-Darurat*: namely a condition where if someone does not do the forbidden thing he will die or endanger himself, as in the example above.
- b. *al-Hajat*: namely a condition where if a person does not do the forbidden thing, it does not harm him, like normal hunger.
- c. *al-Manfa'ah*: namely the condition of a person who fulfills something based on his desires, such as eating beef and drinking milk.
- d. *al-Zinah*: ie someone who fulfills something just for fun such as women wearing jewelry, or clothes made of silk or cotton.

⁴⁰ al-Suyuti, 133.

⁴¹ M. Ahmad Sahal Mahfudz, *Anwar Al-Bashoir: 'Ala Ta'Liqot al-Asybah Wa an-Nadhzair* (Pati: Ma'had Maslakul Huda, 2021), 110.

⁴² al-Suyuti, *Al-Asybah Wa al-Nadhzair Fi Qawa'id Wa Furu' Fiqh As-Syafi'iyyah*, 35.

- e. *al-Fudhul*: that is, someone who is excessive in attitude to the point of falling into the forbidden, such as using gold tableware.

In the book *Idohu al-Qawa'id al-Fiqhiyyah* by Shaykh Abdullah bin Sa'id 'Ubadi, it says a rule "*Ma Jaza Li 'Udzrin Bathala 'Inda Zawalihi*" which means that something is allowed because of the excuse, then the permissibility expires when the excuse already lost.⁴³

Harun Sencal & Mehmet Asutay's Maslahah Concept

Maslahah is a complicated study that need many time to understood. Harun and Mehmet can conclude and formulate the *maslahah* and give some insight to this study. He can connecting the *maslahah* term with halal studies in his section book, *Rethinking Halal. Maslahah* is not a new concept in the process of making fatwas, it has been widely known by medieval scholars. However, nowadays, *maslahah* has experienced a slight shift in meaning. One of the definitions of *maslahah* that is most often quoted in this modern era is that *maslahah* does not have to be under the two main sources, the Qur'an and the Sunnah. Sa'id Ramadan Al-Buthi calls it *maslahah mawhumah* or a matter that is still being debated.⁴⁴ On the other hand, the legitimacy of *maslahah* comes from the evaluation of a case carried out by a scholar without evidence or supporting arguments from the Qur'an and Sunnah.⁴⁵ Looking back, *maslahah* is used as a legitimized concept in the making of fatwas, although with various

⁴³ Abdullah bin Sa'id 'Ubadi, *Idohu Al-Qawa'id al-Fiqhiyyah* (Surabaya: al-Haromain, n.d.), 44.

⁴⁴ Said Ramadan Al-Buthi, *Ḍawābiṭ Al-Maşlaḥa Fī al-Sharī'a al-Islāmiyya* (Damaskus: Risalah Publisher, 2005), 412.

⁴⁵ Sencal and Asutay, *Rethinking Halal: Hegemony, Agency, and Process*, 25.

variants.⁴⁶ From a historical perspective, we can find the initial discussion of *maslahah* in the Juwaynī's book (d. 419/1028), al-Burhān. In his book, Juwaynī tries to describe the *maslahah*, although it is not complete. In addition, he also did not convey various scientific fields related to *maslahah*.⁴⁷ Sencal and Asutay divide *maslahah* based on the period of development, starting from al-Ghazali, al-Razi, al-Qarafi, al-Thufi, to al-Syatibi.

1. Al-Ghazali and al-Razi's Maslahah Perspective

Maslahah according to al-Ghazali is taking things that can provide benefits and avoid harm. In addition, according to him, *maslahah* functions as a means of actualizing the goals of the *Sharia*. According to him, *maslahah* cannot be based on the subjectivity of a person or group but based on the will of Allah.⁴⁸ This was agreed by Sheikh Izzuddin bin Abdissalam in his book *Qawa'id al-Ahkam fi Masalih al-Anam*.⁴⁹ Al-Ghazali also said that *Sharia* is oriented towards five things, namely religion, soul, reason, lineage, and property. In addition, he also categorizes them into three parts, namely primary needs (*daruriyat*), secondary needs (*hajiyyat*), and complementary needs (*tahsiniyyat*).⁵⁰ The *maslahah* according to al-Razi in his book *al-Mahsul* is not far from what was conveyed by al-Ghazali. By adding

⁴⁶ Siti Qomariyah, "Al-Ghazālī's Theory of Munāsaba in the Context of the Adaptability of Islamic Law" (Thesis, Canada, McGill University, 1994), 13–37.

⁴⁷ Duman Soner, "Imam Gazzali'nin Maşlahat Dusuncesine Katkileri," *Journal of Islamic Law Studies* 18, no. 24 (2011): 11.

⁴⁸ Soner, 14.

⁴⁹ Izzuddin bin Abdissalam, *Qawa'id al-Ahkam Fi Masalih al-Anam* (Beirut: Dar al-Kutub al-'Ilmiyyah, 2014), 22–23.

⁵⁰ Sencal and Asutay, *Rethinking Halal: Hegemony, Agency, and Process*, 33.

some details and methodologies as well as analogies, he opens a room for criticism in his problem.⁵¹

2. Al-Qarafi's *Maslahah* Perspective

Al-Qarafi continued what al-Ghazali and al-Razi had founded by adopting two major points. The first is to integrate *maslahah* with a legal analogy by seeking integration (*munasabah*) using the legal ratio (*illat*). It also expands the function of *maslahah* by making it a legal rule of law. So it can be said that al-Qarafi did not fully follow al-Ghazali and al-Razi, but developed it into a rule (*qawaid*) as a means of answering various problems.⁵²

3. Al-Tufi's *Maslahah* Perspective

In the realm of fiqh and theology, al-Tufi did not get much acclaim. He has a fairly controversial view where he says that *maslahah* is a source of law that is superior to texts (al-Quran and Sunnah) and *ijma'*. According to him, *maslahah* must go through *takhsis* (particularization) and *bayan* (clarification). He departs from the hadith which states "it must not cause harm" by concluding that *maslahah* comes as protection against possible harm.⁵³

4. Al-Syatibi's *Maslahah* Perspective

Al-Syatibi introduced a new approach, namely the inductive approach. In this approach, there are two variables, namely *kulliyat* (universal) and *juz'iyat* (particular). Each *kulliyat* consists of several interrelated *juz'iyat* and has a universal purpose. According to him,

⁵¹ Felicitas Meta Maria Opwis, "Maslahah: An Intellectual History of A Core Concept in Islamic Legal Theory" (Desertasi, Canada, Yale University, 2001), 71-116.

⁵² Opwis, 131-36.

⁵³ Kayadibi Savsat, *Al-Tūfī Centred Approach Ti al-Maslahah al-Mursalah (Public Interest) in Islamic Law* (Islam Hukuku Arastimalari Dergisi, 2017), 78-79.

the public interest argument can be achieved by using an inductive approach.⁵⁴ As stated by al-Ghazali, he divides objectivity (*maqasid*) into five, namely religion (*din*), soul (*nafs*), reason (*'aql*), offspring (*nasl*), and property (*mulkiyyat*). Then, each of these elements has three levels, namely *daruriyat* (primary), *hajiyyat* (secondary), and *tahsiniyat* (tertiary). According to him, all these elements are a unit that cannot be separated.⁵⁵ According to al-Syatibi, *maslahah* or *mafsadah* cannot only be measured by current conditions, but also for the future and the last day. He also added that nothing is purely *maslahah*, but a combination of *maslahah* and *mafsadah* to be weighed and seen which ratio is more dominant.⁵⁶

In addition to formulating some of the views of the figures above, Sencal & Asutay also gave their views on *maslahah* in the modern era. Modernization brings a lot of influence on human life, not sparing the Muslim population. He said that there is no easy solution for Islamic law in dealing with the conflict between Islam and modernity. As a result, several reformist groups respond to these challenges with an intellectual perspective.⁵⁷

It can be understood from the explanation presented by Harun and Sencal above that there are several important points in the *maslahah*'s discussion. The first point is that *maslahah* is divided into three

⁵⁴ Wael B. Hallaq, *A History of Islamic Legal Theories: An Introduction to Sunni Usul al-Fiqh* (Cambridge: Cambridge University Press, n.d.), 166.

⁵⁵ Sencal and Asutay, *Rethinking Halal: Hegemony, Agency, and Process*, 36.

⁵⁶ Opwis, "Maslaha: An Intellectual History of A Core Concept in Islamic Legal Theory," 272.

⁵⁷ Sencal and Asutay, *Rethinking Halal: Hegemony, Agency, and Process*, 37.

categories, namely primary (*darurat*), secondary (*hajiyyat*), and tertiary needs (*tahsiniyyat*). The use of pig kidneys at this time cannot be said to be a primary need because there are still several solutions available to treat patients with kidney failure, such as hemodialysis, continuous ambulatory peritoneal dialysis, and transplantation using human kidneys. In other word, using pig kidney in the xenotransplantation can be allowed if there are no other ways to treating the kidney failure (*ERSD*) patient. The second point is the legal ratio (*illat*) which in this case, with the technological advances, we can better understand the scientific reason (*illat*) for the prohibition of pork is the large number of ingredients that harm the human body such as Fasciolopsis Buski (leech worms), Hook Worm (nematoda worms), Paragoninumus (lung worms), Cinorchis Sinensis (liver gall worms), and so on.⁵⁸ Zuhroni in his thesis that raised the response of scholars to medical issues said that transplantation with pig organs to replace similar organs in the human body is not allowed with the exception that there are no other organs as effective as pig organs. If that is the case, then the law is permissible according to Imam Subki, Imam Asnawi, and Imam Romli.⁵⁹

The use of porcine kidney in xenotransplantation may be carried out with several strict notes, namely that there is no other method other than porcine kidney xenotransplantation in health services, the patient's condition can only be treated with the porcine kidney xenotransplantation, the transplant has been proven

⁵⁸ Tamlikha, "Keharaman Babi Dalam Al-Quran," 35–45.

⁵⁹ Zuhroni, "Respon Ulama Indonesia Terhadap Isu-Isu Kedokteran Dan Kesehatan Indonesia" (Thesis, Jakarta, Sekolah Pascasarjana UIN Syarif Hidayatullah Jakarta, 2007), 298.

successful before, and if the circumstances and conditions return to normal in the sense that pig kidney xenotransplantation is no longer the only solution that can be applied to patients with chronic kidney failure, so the status is again haram. Further researchers can discuss the theme of this discussion using a humanitarian or social-humanities perspective. In addition, sharpening the analysis using the *maslahah* perspective can also be done using several concepts of *maslahah* contemporary scholars. With this research, it is hoped that it can help academics or the wider community in understanding the phenomenon of pig kidney xenotransplantation from a comprehensive perspective.

Conclusion

Using the principles and concepts described above, we can comprehensively analyze this pig kidney xenotransplantation comprehensively. There are several points that we should pay attention to. The first is how severe chronic kidney failure is for humans, the second is what are the ways to treat the disease, the third is how urgent is xenotransplantation of pig kidneys for people with kidney failure, and the fourth is what are the benefits and benefits that can be achieved. Taken from the practice.

First, the Ministry of Health said that chronic failure is a severe health problem. Data from the Global Burden of Disease in 2010 stated that chronic kidney disease was the world's 18th leading cause of death. Besides that, ten percent of the world's population suffers from chronic kidney disease, and millions of people die every year because they do not have access to treatment. In 2013, two out of 1000 people or 499,800 Indonesians suffered kidney

failure.⁶⁰ So we can know that kidney failure is a moderately severe disease that can interfere with human life.

Second, there are three ways to treat chronic kidney failure. These three therapies are to replace the role of the kidney that is no longer functioning. Namely hemodialysis, or often so called call dialysis, is done by machine. Then continuous ambulatory peritoneal dialysis, a therapy performed by inserting dialysis fluid into the abdomen through an artificial hole. The last one is a kidney transplant, replacing a patient's kidney that is no longer functioning with a donor's kidney.

Third, of the two million people in the world who receive treatment, only 10% undergo kidney transplants. That is only one in ten people who get the treatment. This is due to the lack of kidney stock to be transplanted in patients with kidney failure. Transplantation using pig kidneys is considered to be a solution to the shortage of kidney stocks. Many patients died due to waiting for a kidney donor who never came. There are indeed three ways to deal with this disease, but the other two ways only replace part of the kidney's work so that the benefits obtained are not complete.

Fourth, as stated by al-Syathibi that nothing is pure *masalah*, but everything has *masalah* and *mafsadah* sides. What then becomes a consideration is how big the ratio of each of the two variables is so that a solution can be found. The practice of xenotransplantation carried out by a team of medical experts in New York is not final. There are still a few more steps to be able to make sure that the practice is running well and right. On the other hand, the

⁶⁰ Aulia, "Ginjal Kronis," October 27, 2021, <http://p2ptm.kemendes.go.id/kegiatan-p2ptm/subdit-penyakit-jantung-dan-pembuluh-darah/ginjal-kronis>.

benefits that can be obtained from pig kidneys have a significant impact on kidney supplies as a condition for the implementation of the transplant process. However, the *mafsadah* generated is also not less. With the legalization of pig kidney xenotransplantation, the community will be aggressively producing pig farms. The pig population will increase significantly. Not to mention if later it is proven that the practice was not successful, thus endangering the people who have already done it.

Pig kidney xenotransplantation is a novelty in the medical world. The pig kidney is considered capable of replacing human kidney function. However, this is controversial because it uses pigs, especially among Muslims. Based on the data exposure and analysis above, the authors conclude that the use of pig kidneys as a substitute for human kidneys to be transplanted into the human body has not yet reached the *al-darurah* level, that is, if it is not carried out it will threaten human life but is still at the *al-hajah* level which does not match the level of *al-hajah* change the status of haram to halal. This is because other ways can be done, such as hemodialysis, continuous ambulatory peritoneal dialysis, and kidney transplantation using human kidney donorss. The factor in the death of patients with kidney failure is not necessarily due to a shortage of kidney stock, but also the system and procedures for managing health services that are not optimal and evenly distributed. This is evidenced by the number of patients with kidney failure who cannot get access to hospitals or other health care centers.

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