



Burhani's Reason on Scientific Interpretation Ministry of Religion of the Republic of Indonesia in Scientific Interpretation of the Qur'an Surat.Az-Zumar Verse 6

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Abstract. Many people are only concerned with aspects of science and technology when investigating the development of the science of embryology. They tend to forget that there is a book that explains science related to embryology from thousands of years ago, and it has been thoroughly examined by an embryologist named Keith Moore. This present study is library research since it includes many references from several interpretations and scientific papers, allowing it to determine the relationship between the Qur'an and science. From our analysis of the interpretation of Q.S. Az-Zumar, it is found that there is a strong connection between the Quran and science. As a result, it can be claimed that the Qur'an will always be relevant to the times. This research concludes that the creation of human beings can be seen from many sides because these sides are connected to one another. The interpretation explains the three layers of darkness as darkness in the abdomen, darkness in the womb, and darkness in the membrane that surrounds the child in the womb. In Biology, it is described that the embryo in the womb undergoes three developmental phases known as the morula, blastula, and gastrula phases.

Keywords: Burhani · Scientific Verses · Quran and Science

1 Introduction

There are several studies on the process of fetal growth in the female womb, and it should be noted that the majority of study on fetal development is mainly from a scientific standpoint. We frequently forget that the Muslim holy book, the Quran, has previously addressed this issue. Islam, through the Quran, has explained the growth of the fetus in the womb since thousands of years ago, one of which is in the surah Az-zumar verse 6, which will be explored in this paper. As we all know, Keith Moore is a well-known Western anatomist and embryologist who carried out research on the development of the embryo in the womb of a woman using the Qur'anic approach, and as a result of

his studies, he converted to Islam. In addition to receiving Allah's guidance from the findings of his research, he wrote a popular book among midwives titled *The Developing Human; With Islamic Additions*.

In his book, Moore explains the creation of humans explicitly through the explanation of the QS Al-Mu'minun verses 6–12, which describe that humans are created from an extract of clay, which then transforms into sperm and is placed in a secure place called a womb. Many scientists were astounded by the findings of this study.

To further examine Surah Az-Zumar verse 6, this study uses the Burhani approach by empirically examining the process of fetal development in a woman's womb. The findings of this study are expected to spark a discussion in an intellectual forum. Furthermore, these results are hoped to broaden readers' understanding of the concept of human creation.

2 Literature Review

In a book written by Dr. Abid Rohmanu, M.H.I titled "*Kritik Nalar Qiyasi Al-Jabiri: Dari Nalar Qiyasi Bayani ke Nalar Qiyasi Burhani*", Al Jabiri argues that the Burhani method is better than other reasoning methods since it involves logical reasoning known as a syllogism. Syllogism reasoning is a type of reasoning in which a conclusion is derived from specific premises or statements. As a result, once these premises have been gathered, a logical conclusion will be reached.

As a result, Burhani reasoning can also be defined as reasoning that uses empirical evidence or experience, where the experiences are considered as clear premises, and when these premises are collected, it produces a logical and easily understood conclusion. Therefore, Al Jabri has a very strong alignment with Burhani epistemology because the results of Burhani methodology can provide alternative solutions to challenges faced by the ummah [1].

A similar point is also found in an article entitled "*Model Nalar Burhani Dalam Madzhab Tafsir Teologi Mu'tazilah*" written by Salim Rosyadi, which describes Burhani's reasoning methodology. According to this article, the Burhani method is an intellectual activity carried out using a deductive approach by connecting statements that are whole (proposition) and clear (axiomatic), and when these two things are joined, it becomes definite knowledge or conclusion.

Viewed from its history, Burhani's reasoning was introduced by a Muslim philosopher named Al-Kindi. Burhani's reasoning idea is thoroughly detailed in a piece of writing titled *Al-Falsafah Al-Ula*. This philosophical idea was influenced by the work of Aristotle, an eminent philosopher. Al-Kindi's work was provided as a gift to the king who ruled at the time, Al-Makmun. According to Al-Kindi's book, this Burhani method can be utilized to develop science by applying the syllogism rules referred to in this book as the al-qiyas al-jam'i method, namely the merging of two premises in such a way that the premises become a conclusion [2].

It should also be emphasized that the Burhani method differs from the empirical approach in that it is not only restricted to ratios but also has a foundation in external objects. So, in order to employ the Burhani method, several steps must be followed, including the understanding, inclusion, and reasoning steps. When these steps are completed, the syllogism method can be applied, and the Burhani method can be used at that point.

Meanwhile, surah Az-Zumar verse 6, which describes the three stages of darkness in fetal development, is linked to other surah in the Qur'an, notably surah Al-Mu'minun verse 12. This is mentioned in an article entitled "*Studi Literatur: Konsep Pembentukan Janin Dalam Perspektif Al-Qur'an dan Sains*" by Intan Suryani [3].

The paper also describes a branch of science called embryology, which is a scientific discipline that studies fetal growth in the womb. In terms of embryology, there have been several scientific findings that agree with the interpretations of the Quran's verses. According to the research, Surah Al-Mu'minun verses 12–14 describe fetal growth and explain how human development is separated into six stages. These stages are as follows:

1. The first phase is the *Nutfah* phase. In this phase, the sperm cells mix with the ovum cells. If it does not happen, it cannot be categorized as *nutfah*.
2. The second phase is *Alaqah*, in which the mixed cells form a clinging clot similar to a leech that sticks to its host in order to obtain food from it. The sperm-ovum mixture will create a clot that will cling to the uterine wall.
3. The third phase is *Mudghah*, in which the blood clot forms a placenta when examined under a microscope.
4. In the fourth phase, known as the *Idzhaman* phase, bones will form. At this point, the fetus will build an internal structure with uniformity in shape; nevertheless, the bones referred to here are not hard bones, but rather soft bones.
5. The fifth phase is the *Lahman* phase. In this phase, the soft bones will be covered with muscle and flesh resulting in strengthening of the bones due to the covering of the muscles and flesh. The flesh, however, differs between the *mudghah* and *lahman* phases. The distinction is that the flesh in the *mudghah* phase is dirty, but the flesh in the *lahman* phase is fresh.
6. The sixth phase is known as *Khalqan Akhar*. This is the final phase in the development of the fetus. The fetus is in human shape during this stage, and its characteristics and behaviors have also developed. This final phase is crucial since the soul is also blown in this phase.

Therefore, the discussion in this article is related to the relationship between science and several verses in the Qur'an. This research employs the literary method to help us better understand and study verses of the Qur'an and science concerning embryology [4].

This research related to surah Az Zumar verse 6 is expected to generate favorable information, allowing negative dogmas about the Qur'an and science to contradict each other be dispelled. The interpretation of surah Az-Zumar verse 6 is explained in one of the Tafsir or Interpretation book issued by the Ministry of Religion. According to this Tafsir, Allah created mankind beginning with the prophet Adam and continuing with the creation of Eve as his partner. Couples of sons and daughters were born from this couple. It is also stated in this interpretation that Allah created humans sequentially, and there were always occurrences after occurrences when the creation of humans took place.

This development started from the *nutfah* phase to the *khalqan akhir* phase. Following these phases, the process of human creation continues, and these phases will be tied to one another. This is particularly interesting when discussed in a dialect forum using the Burhani reasoning approach. The object of this research is Tafsir by the Ministry of Religion.

There are also several other Tafsirs that explain surah Az-Zumar verse 6. Among these are Tafsir Muyassar, Tafsir Mukhtasar, and others, and all of them reach the same conclusion that there are still more phases to go through after going through the six growth phases mentioned in Surah Al-Mu'minun [5].

3 Methodology

3.1 Type of Research

This study is a type of library research because the researchers used several publications as references. In this case, the researchers cited a large number of texts from numerous articles published in various journals. In addition, the researchers also compared information from the papers with current facts using the Burhani methodology.

3.2 Research Approach

The approach utilized in this research was a scientific approach, in which researchers took some existing data in the world of midwifery and Tafsir 'Ilmi from the Ministry of Religion. Therefore, it can be said that this research was carried out scientifically.

3.3 Data Sources

Due to the nature of library research, the data in the study were derived mostly from articles published in numerous journals. This research relied heavily on journal references rather than facts in the field, although the primary source was still a Tafsir issued by the Ministry of Religion.

3.4 Data Collection

Data were gathered by collecting articles from numerous publications so that researchers may draw conclusions about the topic under discussion. Furthermore, data were also acquired from a book in order to enhance the arguments made in the articles [6].

3.5 Data Analysis

The data were analyzed by reviewing a variety of interpretations from the Ministry of Religion that had been investigated by previous researchers, as well as several articles from the field of science.

4 Result and Discussions

The interpretations of surah Az-Zumar verse 6 have been explained in a Tafsir produced by the Ministry of Religion. It is said that human beings were created from a single soul, namely Adam's soul, and then from Adam and his companion, Eve, born couples of offspring. Then Allah created eight pairs of cattles, He creates humans in women's womb, one development after another, in three layers of darkness. It is mentioned in surah Az-Zumar verse 6, which reads:

خَلَقَكُمْ مِنْ نَفْسٍ وَاحِدَةٍ ثُمَّ جَعَلَ مِنْهَا زَوْجَهَا وَانزَلَ لَكُمْ مِنَ
الْأَنْعَامِ ثَمَنِيَّةً أَزْوَاجًا يَخْلُقُكُمْ فِي بُطُونِ أُمَّهَاتِكُمْ جَلْفًا مِنْ
بَعْدِ جَلْقٍ فِي ظُلُمَاتٍ ثَلَاثٍ ذَلِكَ اللَّهُ رَبُّكُمْ لَهُ الْمُلْكُ لَا إِلَهَ إِلَّا هُوَ
فَإِنِّي تُصِرُّونَ 6:

“He created you all from a single soul, then from it He made its mate. And He produced for you four pairs of cattle. He creates you in the wombs of your mothers in stages, one development after another, in three layers of darkness. That is Allah—your Lord! All authority belongs to Him. There is no god worthy of worship except Him. How can you then be turned away?” [17]

In the brief interpretation of the Ministry of Religion, it is also explained that Allah created mankind from one soul, namely the soul of Adam, and Allah made Eve as Adam's partner, and from this pair were born couples of offspring [7]. Following that, the process of human creation continues, development after development, beginning with a drop of sperm and ending with a human. Based on the Ministry of Religion's comprehensive interpretation, one of the ways Allah shows His omnipotence is in the process of human creation. The interpretation of the Ministry of Religion further explains that in the beginning, Allah created only one human, Adam, and afterward He created Eve. Allah created people with different languages and colors. Then Allah created several sorts of animals in pairs [8]. Similarly, there is also an explanation for the three layers of darkness in the mother's womb, that the infant in the womb lives in three layers of darkness [9].

From a scientific standpoint, it appears that there is a connection between science and surah Az-Zumar verse 6, as stated in one of the embryology books *“There are three stages of prenatal development in the womb; pre-embryonic that happens in the first two and half weeks after conception, embryonic period, which occurs until the eight weeks of pregnancy, and fetal period, which is the time from the eighth week until birth”* This explanation from science and Surah Az-Zumar verse 6 has relevance. According to scientific perspectives, there are three stages in the development of the fetus in the uterus, notably:

1. *Pre-embryonic period.* This is the first stage in which the zygote encounters enlargement in the uterus. This enlargement is subsequently followed by cell division, resulting in the formation of a blood clot. This blood clot will penetrate the uterine wall. The constituent cells of the zygote arrange their sides to form three layers as it grows [10].

2. *Embryonic period.* This period is classified as the second stage, which lasts five and a half weeks. At this stage, the enlarged zygote forms an embryo. All of the baby's organs and systems begin to form at this stage. This infant develops from a layer of cells formed during the pre-embryonic stage [10].
3. *Fetal period.* The infant is referred to as a fetus at this stage. This stage lasts through the eighth month of pregnancy until birth. The baby has fully developed as a human being during this phase, thus it simply waits for the next 30 days for the birth period [10].

From the three stages that science has explained, we must also investigate the interpretation by the Ministry of Religion of the Republic of Indonesia on Surah Az-Zumar verse 6 that the meaning of the three darknesses itself is a drop of sperm that forms a fetus, after which a layer is formed in the darkness of the abdominal wall. The following is the meaning of the three darknesses:

1. Darkness in the abdomen
2. Darkness in the womb
3. Darkness in the decidual membrane [11].

Science then further explains the types of darkness described in surah Az-Zumar verse 6 through the stages of a baby's development in a woman's abdomen. The phases that a woman goes through during pregnancy may be properly researched from a scientific standpoint. This scientific explanation provides insight into the development of sperm in a woman's uterus, allowing the Burhani procedure to be applied in this situation.

If we apply the Burhani technique to this, one of the researchers who has looked at pregnancy is Keith Moore. He is an obstetrician, also known as an expert in the subject of embryology. Moore analyzed Surah Al-Mu'minun verses 6-12 in his studies.

وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سُلْةٍ مِّنْ طِينٍ ۚ ۝۱۲

“And indeed, We created humankind from an extract of clay,” [18]

Surah Al-Mu'minun verse 12 concludes that human sperm has the element of soil, and when sperm mixes with an ovum, a nutfah is formed, which continues to develop towards the Khalqan Akhar phase, the last phase in human formation. The Qur'an has discussed the development of humans comprehensively, and this information is also consistent with science [12].

The following is an explanation of the three darknesses mentioned in science and the surah Az-Zumar verse 6. According to some interpretations, the darkness on the abdominal wall signifies that there is not only literal darkness inside the abdomen, but there are multiple cells and layers that can protect the baby, and this darkness lasts not only one month but up to nine months. This is similar to how nutfah and other phases are explained in Surah Al-Mu'minun. However, some experts argue that the first darkness is the amnion because the amniotic membrane is a thin membrane that shields the embryo and contains amniotic fluid in which the baby will later float [13].

The second darkness, which is darkness in the womb, occurs in the vagina. As we all know, there is a lot of darkness in every human body, thus there are numerous phases

of darkness in the womb [14]. But the darkness phase here is not without purpose. In the process of pregnancy, there are many processes and development steps that occur in the womb. The phases that take place in the womb can determine the life of an infant in a mother's womb. The womb, on the other hand, helps with the birth process, encourages blood flow to the ovaries, maintains fertilization that happens within the egg, and many other tasks. However, scientists identify this darkness as the chorion, which means that the chorion is the fetus' covering and this membrane is the outermost membrane within the fetus' covering [19].

The meaning of the third darkness or the last darkness is the darkness of the amniotic membranes. As previously stated, the amniotic membrane is a thin membrane that protects the baby, and within this membrane there is amniotic fluid which functions to float the baby in the stomach, reducing the movements and kicks caused by the baby. However, some experts also believe that the last darkness is the decidua membrane. This decidua membrane is the final membrane that lines the womb. This membrane serves to protect the fertilized cell. This membrane will be released when it is time to give birth [15].

Even though there are differences in the explanations regarding these three phases, it can be concluded that there are similarities of opinion, depending on how we conclude them, and that there is indeed a connection between science and the Qur'an.

5 Conclusion

The explanation above leads to the conclusion that there is a connection between science and the Qur'an. The Qur'an was revealed thousands of years ago, while science emerged after the revelation of the Qur'an. Keith Moore, an embryologist, also conducted research on the process of pregnancy and even looked deeper into the process of human formation. He decided to convert to Islam after discovering results that corresponded to what is written in the Qur'an. In terms of the three types of darkness, it is evident that the darkness found in the abdomen is more than just literal darkness. It contains various stages of human development. The darkness in the womb includes pregnancy phases, each with its own set of functions. Finally, there is darkness in the amniotic membrane, which is the last darkness and serves a crucial function in pregnancy.

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