

Classical muslim scholarly interpretations of when pregnancy begins?

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Abstract

Muslim scholars apply fiqh (substantive law) from classical text to modern understandings of embryology, yet sometimes we may fail to grasp that the theories of early human development then, may have been quite different to what we know today. There can be a serious charge of misapplication of fiqh when these theories do not correspond. I will demonstrate this using the case of how we define pregnancy. Pregnancy is the state “from conception to birth”, but there are problems with this definition as “conception” can mean either fertilization or implantation. This definition is important as it is a determining factor to when we can say a particular intervention is abortifacient or not. I will examine classical Islamic texts to identify whether there was any equivalent theoretical conception of the zygote (the fertilized egg), whether it had any independent moral status, and how fertilization and implantation were understood by classical Muslim scholars compared to what we know today. This will allow us to avoid any misapplication of fiqh pertaining to issues related to this topic.

Introduction

There is no single definition of Pregnancy. The American Heritage Stedman’s Medical Dictionary defines “pregnancy” as “from conception until birth.” (1) This can be confusing as “conception” can mean either fertilization (2) or implantation (3) and to others may mean both. (4) The discovery by O. Hertwig (1875-1878), of the very nature of fertilization- i.e. the fusion of the egg’s and spermatozoon’s nuclei, and Schleiden and Schwann’s discovery in 1839, recognising that the embryo develops from the single-celled zygote, led to a change of views on the ethics of the beginning of life.(5-6) In 1859 the American Medical Association published a statement strongly opposing abortion, commenting on the independence of the zygote during the time between its formation and its implantation. This was based upon the idea that the single-celled zygote was alive and an independent being.(7)

The American College of Obstetrics and Gynaecology in 1965 attempted to redefine “conception” to mean implantation rather than fertilization, (8) however, medical dictionaries and even English language dictionaries both before and after 1966 (9) defined “conception” as synonymous with fertilization. (10-12) Life was seen to begin at the moment when the genetic information contained in the sperm and ovum (female egg) combine

to form a genetically unique cell. As Eberl indicated, “What is controversial is whether this genetically unique cell should be considered a human person.” (13)

The single-celled zygote is a very different kind of cell than that of sperm or ovum, and contains a unique genome that will determine most future physical characteristics and functions of the person. (14) However, there is a potential for the conceptus to split into identical twins prior to implantation, and so (the argument goes) the conceptus cannot be regarded before implantation as a single human being. (15) So, does that make this single-celled zygote an independent agent with intrinsic moral value significant enough for it to be considered the initial organism which determines the beginning of pregnancy or life, and hence any act that terminates its progression and growth is to be considered an act of abortion or its equivalent. Or, is this just a pre-embryonic (16) process which leads to pregnancy, and its normative status does not reach the standard of what we would consider pregnancy, and hence to terminate its further development would not be tantamount to abortion but a lesser crime, if at all.

The American Medical Association at its 2004 Annual Meeting, passed a resolution in favour of making “Plan B” emergency contraception available over-the-counter,

and one of the claims in the resolution was that hormonal contraception that may affect implantation “cannot terminate an established pregnancy.” (17) Similarly, the British Medical Association has defined an “established pregnancy” as beginning at implantation (18), yet the legal definition in the United Kingdom remains unclear. (19)

Ethical concerns peaked with the introduction of over-the-counter emergency contraception and whether they were considered abortifacients. Birth control methods usually prevent fertilization and this cannot be seen as abortifacient because, by any of the above definitions, pregnancy has not started. However, some methods might have a secondary effect in preventing implantation, thus contributing to the death of the pre-embryo. Those who define pregnancy from fertilization subsequently may conclude that the agents should be considered abortifacients. Because an abortion is defined as ending an established pregnancy, rather than destroying a fertilized egg, depending on when pregnancy is considered to begin, some methods of birth control as well as some methods of infertility treatment might be classified as causing abortions.

Islamic Perspective

Islam recognizes the sanctity of human life and believes it should be protected fully. The killing of a single individual human being is tantamount to the mass murder of the whole of mankind: “...anyone killed a person not in retaliation for murder or for spreading mischief on earth, it would be as if he killed all mankind...(Q. 5:32)” Killing children is specifically condemned. In this regard, the Qurān says: “And do not kill your children for fear of poverty. We provide for them and for you. Indeed, their killing is ever a great sin (Q. 17:31).” (20)

All Muslim jurists consider abortion a serious crime and an act of infanticide (al-w’ad) at the time when the embryo or foetus is considered a child and and/ or a human person. This is usually taken to be at ensoulment. (21) Anything before this, there is a difference of opinion, and most consider it a minor crime, requiring compensation by some. This stage is also termed al-w’ad al-khafī (hidden infanticide) or al-maw’ūdat al-sughra (minor infanticide). (22) Then there is a stage before this, when the woman is not considered pregnant, yet there is intrinsic value assigned to the pre-embryo. This stage is considered synonymous to that of the male ejaculated semen having yet not established itself in the womb. The intrinsic moral value assigned to this semen is consigned the ruling of al-‘azl (coitus interruptus), or withdrawing during intercourse, (22) where such acts are normatively no different to preventing the sperm reaching the uterus (womb). With regards to al-‘azl, the correct Islamic legal view is that it is permissible, because of narrations from the companions of the Prophet like Jābir, who narrates,

“We used to practise al-‘azl at the time when the Qurān was being revealed” – i.e., at the time of the Prophet. If that action had been prohibited, the Prophet would have forbidden it. However, Muslim jurists say that one should not engage in al-‘azl with a free woman except with her permission, because she has the right to have children, or at times of poverty for fear of economical hardship and tribulation. (23-24)

At what stage of pre-human development does the normative state cease to be equivalent to that of al-‘azl, and hence permissible prior to this? And when is it to be considered al-w’ad al-khafī, where most consider it a crime to abort? If preventing fertilization (al-talqīh) by blocking semen is considered acceptable or permissible, then would the rule of al-‘azl extend beyond fertilization of the ovum to the zygote and to what stage of development? There exists a great variety of opinions in the Islamic tradition amongst the contemporary scholars about the exact beginning of human life based on this. (25)

To address this question, the first line of enquiry would be to ask whether classical Muslim scholars recognised the zygote and the equivalent process of fertilization and implantation as we do today.

Classical Interpretations of Equivalence to Zygote

The Qur’ān describes the stages of development of human life

“And verily we did create man from a quintessence (of clay). Then we made it into a nuṭfa in a place of rest, firmly fixed. Then we made the nuṭfa into an ‘alaqa. Then of that ‘alaqa we made a muḍgha. Then of that muḍgha bone and then, clothed the bones with flesh. Then we developed out of it another creature (by breathing life into it). So blessed be Allāh, the Most Marvellous Creator.” (Q. 23:12-14)

The Qur’ān describes seven stages of development. Quintessence of clay, nuṭfa in a place of rest [womb], firmly fixed, nuṭfa to ‘alaqa, ‘alaqa to muḍgha, muḍgha to bone, clothing of bones with flesh and finally another creature. We will be focussing mainly on the nuṭfa stage.

There is a ḥadīth (prophetic tradition) which indicates that not the whole of this semen (mā’) actually becomes the child. The companion, Abu Sa’īd al-Khudrī narrates from the Prophet when he was asked regarding al-‘azl, “Not all of the mā’a (semen) becomes a child. If Allāh wills to create something then nothing can prevent Him” (26-27).

This can be interpreted in two complementary ways. Firstly, that only some aspects of the whole semen are essential for creation of man i.e. the *nuṭfa*. Secondly, that the final product which implants in the uterus to create a child does not comprise solely of the male contribution.

Regarding the first interpretation, the *nuṭfa* refers to a small “drop” of liquid (28-30). This should be interpreted as the drop of semen that has the destined sperm. Only 1 sperm out of approximately 3 million get to fertilize the ovum. Therefore, the *nuṭfa* should be seen as just that same drop of liquid from the semen that goes on to contribute to the creation of the zygote. The *nuṭfa* once entering the uterus mixes with the female germinal fluid containing the ovum and fertilizes it in the fallopian tube, and then the zygote which is the product of this fusion (in that very same drop), is transported to the uterus to implant. *Nuṭfa*, though it refers to a physical drop of liquid, represents the stage or process of pre-implantation as would be seen by the unaided eye, rather than at the microscopic level that modern science and its reductionist nature of explanation tends to observe regarding physiological or biological processes. (31) The language used in the Qurān allows for different theories of embryological development, accommodating different understandings of the knowledge of science of that time. (32)

The verse, “While He has created you in stages? [Q. 71:14], Ibn ‘Abbas, Qatāda, ‘Ikrima, Saddī, Ibn Zayd all state that this verse indicates that embryological development is in stages termed – *nuṭfa*, ‘*alaqa* and then *muḍgha* until the last stage of the human person. (33)

The Qurān differentiates *nuṭfa* from semen (*manī* or *mā’*).

Had he not been a *nuṭfa* from (min) semen emitted? [Q. 37:75]

The word “min” here, grammatically indicates the meaning of *tab‘īd* (i.e. a constituent of). This suggests that the *nuṭfa* is a part of the semen. (i.e. the part which contains the sperm that will fertilize the female egg). Yet at the same time the Qurān refers to them in the same manner by describing the *nuṭfa* as being ejaculated in the same sense as semen.

“And He created the two sexes male and female from a drop (*nuṭfa*) when ejaculated (or planned)” [Q. 53:45-46]

This identifies that the *nuṭfa* is also ejaculated with the remaining semen. It could be argued that it would therefore make sense to consider the *nuṭfa* as the sperm which fertilizes, as it is a constituent of the semen and is ejaculated with the semen. However, this would be incorrect.

If we were to accept that *nuṭfa* refers to sperm or the semen generally, then there is a problem as there is no mention of the female contribution. The verse clearly says

further, ““We made (*khalaqnā*) the *nuṭfa* into an ‘*alaqa*”. This would therefore suggest that the child was contained in the man’s seed (sperm) independent of the female contribution and this would be incorrect. We know that the sperm doesn’t become a zygote, rather it fertilizes an ovum, which then becomes the zygote and early stages of man. The more acceptable explanation of this would be that the *nuṭfa* just refers to “a drop of fluid”, and it can be used interchangeably as “a drop from emitted semen which contains the sperm that will fertilize” or, “a drop of fluid as a final product consisting of a fertilized egg (zygote)”. In other words, the Qur’ān makes reference to that constituent drop of semen (which contains the sperm that is destined to fertilize), which will then fertilize the ovum to develop into a zygote, visible as a drop. *Nuṭfa* describes an important process of fertilization related to the mixing of drops, and hence the stage of early human development through the processes of the emission of a drop to a production of a drop that will implant. Just like *mā’a* or *manī* refers to the semen generally and not specifically to what is contained in the semen i.e. sperm + seminal fluid, similarly the *nuṭfa* refers to a drop of liquid which can consist of either semen or/ and the fertilized egg (zygote). The reference here to *nuṭfa* is solely in reference to what would be observed with the naked eye and not to necessarily differentiate between a sperm or semen from a zygote.

Classical Interpretations of Equivalence to Fertilization

Indeed, We created man from a drop mixture (*nuṭfa amshāj*) that We may try him; and We made him hearing and seeing. [Q. 2:76]

The above verse elaborates and describes the *nuṭfa* as a drop “mixture” (*nuṭfa amshāj*) suggesting that there is a process of mixing to create man. In Arabic *amshāj* means mixture, and *nuṭfa amshāj* indicates a mixture of male and female germinal fluids. Muslim scholars agree on deriving this meaning from the above expression. The Muslim exegetists, al-Farā’a (d. 822) claims this *nuṭfa amshāj* to be a fusion (*al-akhlāt*) between male and female fluid, blood and congealed clot (*al-‘alaqa*). (34) al-Baghwī (d. 1122) also states that *amshāj* is to mix (*akhlāt*) (35). al-Ṭabarī (d. 923) asserts that Muslim scholars state that this is the mixing of the male and female fluids. This is supported by the verse of the Qurān. (36)

O mankind, indeed We have created you from male and female [Q. 49:13].

The female contribution (ovum) is at times also referred to as *nuṭfa* (a drop), as both contribute to the final product of zygote. (36) Many of the Qurānic scholars acknowledged that the early human creation was from a mixture of male and female fluid.

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Recognising that Muslim scholars were aware of a similar process resembling what we consider fertilization today, which included the fusion or mixing of male and female germinal fluid, the question arises did they give it moral significance. It could be argued that they were not aware of the degree of significance of fertilization as a determining factor for sexual and genetical/ physical characteristics with its associated biological events, and hence did not give the same value as what they would have, if they had known.

Ibn Abbas narrates that the dominant liquid in gender will determine final gender of child and this is explained as the male liquid (*ma' al-rajul*) meeting the female liquid (*ma' al-mar'a*). (37) He also states that the male and female liquid meet in the uterus and one of them becomes the child. The male liquid is dense white (*abyad ghaliz*) and the female is a light yellow (*asfar raqiq*). (38)

Ibn Abbās's statement suggests two things; firstly that the equivalence to what we consider fertilization occurs in the womb, and secondly that the dominant liquid in gender will determine final gender of child.

In relation to the first point, there are many accounts from classical Muslim scholars that clearly identify that they believed that this process of *nutfa amshaj* occurring in the womb was after the *nutfa* was established in the womb (i.e. equivalent to what we would consider implantation), which is quite a different understanding to what we know of today. We now know that fertilization occurs in the fallopian tubes before implantation.

In relation to the second point, that the dominant liquid in gender will determine final gender of child, we now know that this is related to the time of conception determined by chromosome characteristics - and it will be the male (or rather the male's sperm) that determines whether the child will be a boy or a girl. Prior to fertilization, the unfertilized egg carries an X chromosome while the sperm can carry either an X or a Y chromosome. The gender of the zygote comes down to one simple event: If the sperm carrying an X chromosome fertilizes the egg, a girl will be conceived. If the sperm carrying a Y chromosome fertilizes the egg, a boy will be conceived. This however has been described as the mixing of two liquids (male and female contributions) equivalent to what we consider fertilization.

This information about sex determination is narrated in the Qur'an:

“And He created the two sexes male and female from a drop (*nutfa*) when ejaculated”. [Q. 53:45]

Furthermore, when the Prophet was asked about the reason why the child sometimes resembles the father and other times the mother, he responded, “when the semen of the male dominates the germinal fluid of the female, then it (the child) will resemble him (the father) and if the female germinal fluid dominates the male then it (the child) will resemble her (the mother). Ibn Qayyim (d. 1350) asserts that the liquid of the man does not alone lead to birth of a child, until it mixes (*yumazij*) with another essence (*mada ukhra*) from the woman. He further elaborates that the limbs, body parts and form are determined by meeting of these two germinal fluids. (39)

Sayyid Qutub (d. 1966), a contemporary scholar of exegesis explains that *al-amshaj* is to mix (*al-akhlat*) and he further asserts that this is sometimes taken as the formation of the *nutfa* from the male gamete and female egg after fertilization and sometimes the fusion of the chromosomes in the *nutfa* which science refers to as “genes”. (40)

Moral significance of the Equivalence to Fertilization

Classical Muslim scholars acknowledged that it was at this stage of fusion/ mixing, that a male and female contribution led to sex determination and parental characteristics. (36) Having determined this, most still considered aborting at the *nutfa* stage as not problematic to the degree where it would be considered *infanticide al-wad*. However, they accepted that this was not identical to the state of *al-azl* and held higher normative value. It was the beginning of the means to life of the foetus, but for most, it still did not hold the same moral consequence of abortion (*saqt/ ijhad*) of an embryo which was seen in the *al-alaqa* and *mudgha* stages in the uterus. Muslim jurists morally differentiated the *nutfa* stage from that of *al-alaqa* and *mudgha*. (41)

The moral significance of the mixing or fertilization was addressed explicitly by scholars like al-Ghazali (d. 1111), who holds conservative views on the issue and claims the beginning of the means of existence (*mabda'u sabab al-wujud*) is when the semen locates in the womb (*wuqu' almani fi al-rahm*), and not when it exits the urethra of the male (*viz. equivalent to al-azl*) because the child is not created from the semen alone but from a combination of germinal fluids of both mother and father. He then asserts that, “this prepares it for life”. In other words it is not considered alive as yet, but has the potential. Interestingly he also mentions this is either when the liquid of the man mixes or fuses with the woman's liquid

or her blood. (42)“It is at this point that aborting is a crime”. He deduces this from the legal analogy (qiyas) based on the contractual relationship which follows the proposal (al-ijab) and its acceptance (al-qabul) in a marriage contract. Then he states, “Any stage before this is not of same moral value,” which suggests he would be referring to before implantation as all jurists concede that post-implantation is not like that of al-‘azl and is considered a significantly higher normative state. Classical Muslim jurists believed that the mixing occurred once implantation had occurred (i.e. the nutfa was firmly established in the uterus). He also admits that aborting in the ‘alaqa and mudgha stage is a greater crime, suggesting that he differentiates between the nutfa stage and the other stages, claiming the former to be of a lesser crime. (36) (43)

We know fertilization occurs before implantation and not the reverse, so how does this impact the application of these normative judgements? It is important to note that for most jurists moral significance wasn’t applied directly or explicitly to fertilization to the degree it was applied to implantation. Ibn ‘Arabi MalikI (d. 1148) is explicit about the normative sequence of events yet doesn’t address the issue of ikhtilat. He describes three states (1) ejaculated semen which enters the female reproductive system (viz. considered the al-‘azl stage), (2) implantation of the semen (described as an essential stage where abortion is considered a criminal offence), and then finally, (3) ensoulment. (44)

One good explanation for this could be that implantation was considered a defined stage that determined the initiation of the less defined process of ikhtilat. And ikhtilat was only acknowledged to have happened when the nutfa had become an ‘alaqa. This phase between fertilization and implantation would be considered a time, where to terminate would be of a greater crime than that of al-‘azl and a lesser crime than that after implantation.

Moral Significance of the Equivalence to Implantation

Most Muslim jurists consider life to begin at the time when the nutfa establishes itself in the womb. Pregnancy is described in its technical and legal sense as, “that which is in the womb of a woman, as a child, be it male or female”. (29) This could be because of the understanding that a greater chance for pregnancy is secured once it is established in the uterus. The establishment in the uterus, and also that the embryo has developed enough to accept life, are two important factors which define pregnancy. Any action leading to abortion after this point is seen as a greater crime.

The Quran explicitly describes the fertilized drop (nutfa amshaj) as being lodged firmly in the uterus.

Then We placed him as a nutfa in a firm lodging (qararin makin). [Q. 13:23]

There is moral significance identified when the embryo (nutfa) implants or lodges in the womb. Its place in the womb is seen as pregnancy (al-haml) and many Muslim scholars have considered this event as the point after which the conditions of al-‘azl no longer apply but more stringent conditions are required to terminate, as this would be considered abortion (ijhad). However, we have ascertained that moral value should also be given to the nutfa amshaj or the zygote. Considering that we now know that the zygote nutfa amshaj comes before implantation, (previously assumed to have been after implantation), Muslim jurists will need to decide whether the stage between fertilization and implantation is normatively equivalent to al-‘azl or somewhere inbetween where it holds a normative value more than al-‘azl and less than that after implantation. One approach to this would be to assign it the legal normative state of nutfa, as we are aware that the Quran terms it nutfa amshaj and classical Muslim jurists have provided some idea of their position on the normative value of the nutfa. This would be a more cautious or conservative position, something Islamic legal jurisprudence encourages in such circumstances.

If that is the case, then those who claim that aborting the nutfa is permissible, would accept interventions that act after fertilization, or it may need to qualify more stringent conditions to be accepted, whereas those who don’t permit aborting the nutfa demand higher competing factors to justify abortion or any intervention on the zygote.

The Maliki scholars are generally the most conservative. Dardir (d.1786), declares that, “It is not permitted to abort implanted semen in the womb even if it be before 40 days and when it is ensouled then it is prohibited (haram). Al-Dusuki (d.1815) elaborates, “This is the more authentic Maliki opinion ...it is as if it is not permissible to abort when the semen is established in the uterus even though the nutfa is in its first stages.”(45) For them the nutfa holds a high moral status and any intervention post-fertilization which terminates its growth and development would be a crime and tantamount to abortion.

The remaining sunnī schools consider it permissible to abort nutfa, with stricter conditions than al-‘azl, after alaqa or mudgha stage once the human form (takhliq) becomes apparent these conditions are graver. The Ḥanbalī and Shafii jurists prohibit when human form is visible in its initial stages (after ‘alaqa stage approx. 80 days gestation), whereas the majority position of the Hanafis is when the foetus is fashioned in complete form (after mudgha stage approx. 120 days gestation).

Ibn Qudama (d.1223) states, "If it is aborted whilst there is no human form then there is no problem with this, as we do not know it as a janin (foetus)...If it is miscarried as a mudgha and this is witnessed by reliable midwives and there is some form then a ghurra will be required. If it is witnessed that it is in beginning form and there is only part human form, then there are two opinions. The sounder opinion is that there is no issue as it is not fashioned and it is not obligatory like an alaqa. (46-48)

According to al-Nawawi (d. 1277), "a ghurra is obligatory when there is, due to the crime of abortion, a form of a human. Like eye, ear, hand and other parts, even if part suffices and the whole is not a condition... if the midwives were to state that there are no hidden features, rather it is a whole human even though there remains to be fashioned then there will not be an obligatory ghurra according to the school. (49)

Abu Ishaq al-Maruzi Hanafi (d. 951) permits abortion of nutfa and alaqa and transmits this from Abu Hanifa. After implantation there is the potential for takhallaq, which is a preparation for ensoulment, and this is not like al- 'azl. (50) The scholars differentiate between al- azl and implantation (istiqrar). The latter being the requisite for takhallaq. The former, al-azl is not a medium for life of the person as is seen after implantation.

The more conservative Hanafi jurist Ali ibn Musa, considers this as being disliked (karaha) because semen after having located in the womb its outcome is life and it is then given the hukm ruling of life just like the egg of the prey in the haram (the holy site Makka). Others also assert the same and to abort requires a shari excuse or qualification (al-'uzr). (51)

Conclusion

It has been concluded that most classical Muslim jurists and scholars saw the beginning of pregnancy (al-haml) from the point of their equivalence of implantation, but this was partly because they assumed ikhtilat to have occurred after implantation and not before. The moral status of the embryo implanted in the uterus is greater than that which precedes this. That is not to say that what precedes this in the nutfa stage does not hold intrinsic value, rather lesser competing conditions are required to justify ceasing the process of development at this stage but more than al- azl. It is best to be cautious and hence a good position would be to judge the moral legal crime of abortion in its equivalence to the nutfa stage, as this is how the Quran terms it, which would require more stringent conditions for all sunni schools, except the Malikis who prohibit.

This would suggest that intrauterine device (IUD) and emergency contraception would be an acceptable means of contraception within conditions requiring more

hardship than that which is required at al- azl and the same would apply in cases of reproductive technologies like IVF and stem cell research.

Besides this, there is growing evidence that even if we were to accept abortion post-fertilization, intrauterine devices and emergency pills are shown not to lead to harm of the zygote once fertilized and would therefore be considered safe to use. (52)

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