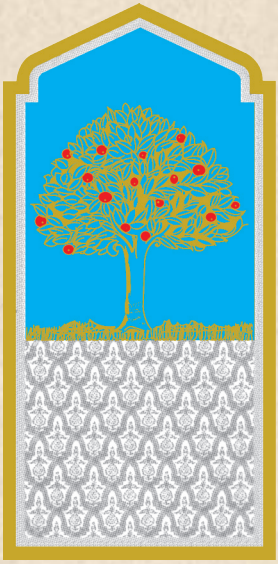

AL-SHAJARAH

JOURNAL OF ISLAMIC THOUGHT AND CIVILIZATION
OF
THE INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA (IIUM)

2018 Volume 23 Number 2

AL-SHAJARAH

Al-Shajarah is a refereed international journal that publishes original scholarly articles in the area of Islamic thought, Islamic civilization, Islamic science, and Malay world issues. The journal is especially interested in studies that elaborate scientific and epistemological problems encountered by Muslims in the present age, scholarly works that provide fresh and insightful Islamic responses to the intellectual and cultural challenges of the modern world. *Al-Shajarah* will also consider articles written on various religions, schools of thought, ideologies and subjects that can contribute towards the formulation of an Islamic philosophy of science. Critical studies of translation of major works of major writers of the past and present. Original works on the subjects of Islamic architecture and art are welcomed. Book reviews and notes are also accepted.

The journal is published twice a year, June-July and November-December. Manuscripts and all correspondence should be sent to the Editor-in-Chief, *Al-Shajarah*, F4 Building, Research and Publication Unit, International Institute of Islamic Civilisation and Malay World (ISTAC), International Islamic University Malaysia (IIUM), No. 24, Persiaran Tuanku Syed Sirajuddin, Taman Duta, 50480 Kuala Lumpur, Malaysia. All enquiries on publications may also be e-mailed to alshajarah@iium.edu.my. For subscriptions, please address all queries to the postal or email address above.

Contributions: Submissions must be at least 5,500 words long. All submissions must be in English or Malay and be original work which has not been published elsewhere in any form (abridged or otherwise). In matters of style, *Al-Shajarah* uses the *University of Chicago Manual of Style* and follows the transliteration system shown on the inside back cover of the journal. The Editor-in-Chief reserves the right to return accepted manuscripts to the author for stylistic changes. Manuscripts must be submitted to the Editor-in-Chief in Microsoft Word. The font must be Times New Roman and its size 12. IIUM retains copyright to all published materials, but contributors may republish their articles elsewhere with due acknowledgement to *Al-Shajarah*.

ISSN 1394-6870

INTERSEX GENDER DETERMINATION IN CLASSICAL ISLAMIC LAW AND MODERN MEDICINE: AN ANALYSIS FOR INTEGRATION[1]

Muhammad Afif Bin Mohd Badrol
Abdul Bari bin Awang
Sayed Sikandar Shah Haneef

Abstract

Intersexuality is a biological fact of human birth. Unlike the normal birth of human species as boys and girls, instances of babies born with ambiguous sexual denomination has been part of human procreation since time immemorial. In the context of Islam, Islamic law contains both regular laws and special provisions dealing with this genre of humans. In the process, the most perplexing issue facing classical jurists was juridical determination of intersexuality in order to decide which set of laws can apply on an intersex. Therefore, they formulated their own juridical criteria and set of indicators mainly dealing with the appearance of genitalia at birth and its function during infancy, otherwise postponing their judgments until the exhibition of secondary characteristic by such individuals. Modern medical science changed the landscape by examining not only the external genitalia but also internal sexual system and chromosomal formula to assign a particular gender to an intersex. This study after delineating the position in both fiqh and medicine argue for regulated integration between the two.

Keywords: Integration, Intersex, Islamic law, Medical science

[1] Article Received: September 2017; Article submitted: November 2018; Article accepted: December 2018

Introduction

In the scheme of Allah's creation, human babies are born either male or female. Nevertheless, there are incidents in which the babies cannot be distinguished as such at birth. Such babies are known in Arabic as *khuntha*, which is normally referred to as 'hermaphrodite' in English, or more recently, popularly known as intersex. It is defined as a person whose body does not conform to arbitrarily quantified criteria for male or female body and have ambiguous sex. Islamic law similar to its prescription of rules for normal male and female, contains juridical rules pertaining to the intersex. For instance, the Prophet inaugurated this special law when he spoke about such individual`s inheritance by ruling that: "an intersex`s portion of inheritance is determined by the way it urinates".[2]

Muslim jurists later on developed a body of *legal corpus* detailing other rules about such individuals for the purpose of accommodating them within the community based on the state of art in their time, namely by looking at their external traits. Modern medicine, however, changed the landscape by considering other factors with far reaching implications for medical treatment of intersex conditions. An important question which this paper is going to examine is: To what extent medical delineation of intersex can be accepted in Islam? To this end, it offers a comparative analysis of the position on intersex from both classical Islamic law and its medical counterpart.

Intersex Delineation in Sunni Classical *Fiqh*

Khuntha (intersex) literally comes from word *khunuth* which means *Layyin* (soft).[3] It is not applied to *Mukhannath*, a term used for a man who clearly identifies as male but chooses to behave and dress like a woman.[4] Hence, *khuntha* refers to an individual that is

[2] Al-'Asqalānī, Ahmad ibn ʿalī Ibn Hajar, *Talkhīṣ al-Habīr fī Takhrīj Aḥādith al-Rafi'ī al-Kabīr*, vol. 1 (Egypt: al-Tibā'ah al-Fanniyah al-Muttaḥidah, 1964), 194.

[3] Ibn Manẓūr, Muhammād ibn Mukarram ibn `Alī ibn Ahmad, *Lisān al-ʿArab*, vol. 2 (Bayrut: Dār Ṣadir, 1955-1956), 145.

[4] Vardit Rispler-Chaim, *Disability in Islamic Law* (Netherland: Springer, 2007), 69.

completely not male or female, or an individual that has both male and female genital but cannot be identified as either.[5]

Muslim jurists have also given various definitions of *khuntha*. For instance, Hanafi jurists like Al-Kāsānī, defines *khuntha* as a person born with both male and female external genitalia.[6] However, Al-Zayla'i, adopted broader view by maintaining that *khuntha* is the condition of having a male and female characteristic.[7]

Maliki jurist, Al-Khurashi, defines *Khuntha* as an individual that has both male and female organs, and also an individual that does have male or female organs. This person must not be identified as man or woman. This is because such variations may involve genital ambiguity or vague combinations of one's physical characteristics as long as there is no proof to distinguish them.[8]

Shafiʿi jurist, Al-Nawawī, defines *Khuntha* in his book *al-Majmu'* as an individual with two sex organs that may not match the gender identity of a man or a woman. The identity of such a *khuntha* remains undecided on whether he/she is going to be a father or a mother, bride or groom, and grandfather or grandmother when he/she grows up.[9]

Hanabilah jurist, Ibn Qudamah al-Maqdisi, in his book *al-Mughni*, defines *khuntha* as those born with both male and female sexual organs. If the person urinates from male sex organs, then the individual can be defined as male or vice versa.[10]

---

[5] Al-Fayrūzabādī, Muhammad ibn Yaʿqub, *Al-Qāmūs al-Muḥīṭ* (Bayrut: al-Mu'assasah al-'Arabiyah li al-Dirāsāt wa-al-Nāshr: Mīhwār al-Shī'r, 1887), b.1, 216; al-Jurjānī, al-Sharāf ʿAlī bin Muhammad, *Kitāb al Ta'rifāt* (Bayrut: Dār al-Kutub al-'Ilmiyyah, (1988), b.1, 137; al-Farāhīdī, Abu 'Abd ar-Raḥmān al-Khalīl ibn Aḥmad ibn 'Amr ibn Tammām al-Azdī al-Yaḥmadī, *al'Aīn* (Bayrut: Dār al-Kutub al-'Ilmiyyah, 2003), b.4, 248.

[6] Al-Kāsānī, ʿAlā' ad-Dīn Abū Bakr ibn Masʿūd al-Kāsānī, *Badā'i' al-Ṣonā'i' fi Tartīb al-Sharāi'*(Bayrut: Dār al-kutub al-ʿlmiyyah, 1986), b.6, 418.

[7] Al-Zailā'i, Uthmān ibn ʿAli Zaylaʿī, Fakhruddīn Uthmān ibn ʿAlī, *Tabyīn al-Haqā'īq Sharh Kunz al-Daqā'iq* (Egypt: Bulaq, 1313H), b.6, 215.

[8] Al-Khurashī, Muhammad bin ʿAbd Allāh, *Sharh Mukhtasār al-Khalīl*, b.8, 227.

[9] Al-Nawawī, Abu Zakariā Yaḥyā Ibn Sharaf, *al-Majmu'* (Riyād: Dār al-Bayrut, 2003), b.2, 53.

[10] Ibn Qudāmah, Imam Mawaffaq al-Dīn ʿAbdullāh Ibn Ahmad Ibn Qudāmah al-Maqdisī, *al-Mughnī* (Riyāḍ: Dār ʿĀlim al-kutub, n.d.),b.7, 114.

Muslim medical experts define *khuntha* as 'intersex' or 'hermaphrodite' (an old word for intersex used until the mid-20th century). According to their edict, intersexuality is a congenital disorder where an infant cannot be identified upon birth as male or female. The reason is that he or she has both female and male sexual organs, or has no sexual organs whatsoever.[11] According to Ani Amelia, in 2005, a meeting has been convened in Chicago by 50 members of medical experts in this field and came up with a medical name for intersex, namely DSD (Disorder Sex Development). The reason is that to call them hermaphrodite or intersex is insulting/ offensive to them.[12]

After analysing the definitions that have been discussed from four schools of Islamic jurisprudence and a medical expert, we can conclude that due to the lack of technology in their time, jurists concentrated more on genital shape of such individuals for their social placement but modern medicine takes complex factors into account.

Types of Intersex in Islamic Law

The *fiqh* discourse on *khuntha* has evolved along distinguishing between two categories of *khuntha*, namely Khuntha *wadih* (determinate intersex*)* and *khuntha mushkil* (indeterminate intersex*)*. *Khuntha wadih* refers to an individual who has both male and female genitals but shows some clear traits of a specific gender as agreed by the *fuqaha'*, hence such an individual can be a male or female.[13] The cue came for the Prophetic hadith where a companion asked the Prophet on how to divide the inheritance if a person is born with two genitals. The Prophet answered that if the person urinates through the penis then the person is male or else is a female.[14]

Drawing from this hadith, the jurists concluded that dominant gender traits is factor for distinguishing between *khuntha wadih* and *khuntha mushkil*. Accordingly, there evolved a juristic theory of

[11] Rispler-Chaim, *Disabilty in Islamic Law* . . . , 69.
[12] Refer interview E1AAPPUKMKL.
[13] *Mausu'ah fiqhiyyāh*, 1st edn. (Kuwait: Wizāratul al-Auqāf wa al-Shu'un al-Islāmiah, 1998), b.20, 23.
[14] Al-'Asqalānī, Talkhīṣ al-habīr fī takhrīj aḥādith al-Rafi'ī al-kabīr . . . , vol.1, 194.

khuntha within the frame of which, their discourse delineates the subject of gender determination of *khuntha* in two stages of such individuals` growth: during infancy and on the eve of its puberty and thereafter. Overall, in the case an infant intersex, they held that the biological sex of *khuntha wadih* is determined by some factors present at birth. Firstly, if the person urinates from the male sex organ, then he is a male but if the person urinates from the female sex organ, then she is a female. Secondly, if the person urinates from both the male and female sex organs, then we see from which organ it secretes the urine first. However, if the person urinates from both male and female sex organs at the same time, then we look at the quantity of urine. For example, Imam Abū Ḥanīfah and scholars of the school *Shāfiʿīah* opined that the *khuntha*'s sex is determined only by looking at which urinary organ secretes more urine.[15] Likewise, Abu Yūsuf and Muhammad al-Shaybānī from the Ḥanafīah school, Mālikīah scholars and Ḥanābilah's scholars, held that the determination of *khuntha* also can be decided by examining the amount of urine secreted.[16] In addition, if the amount of urine secreted from both genitalia are the same, then they will consider the infants to remain as *khuntha mushkil* until puberty.

Conversely, if an infant does not have any characteristics of *khuntha wadih*, then he or she will be classified as *khuntha mushkil.* This is the condition where there are no physical signs to be either male or female based on potency and function of one of his or her organs. Additionally, a person with *khuntha mushkil* condition may have both male and female sexual organs, or may have neither but has a urinary tract ending with a hole. This type of *khuntha* is classified as a person of indeterminate sex due to the ambiguity of urination manner. Hence, in the case of *khuntha mushkil,* it is important for the person to take immediate action and for the *fuqaha'* to discuss this issue so that Muslims with *khuntha mushkil* are able to perform their obligatory duties as the servants of Allah. For example, the individual method of prayer is questionable if a Muslim is

[15] Al-Sarakhsī, *al- Mabsut* . . . , b.30 104-105, Al-Nawāwī, *al-Majmu'* . . . , b.2, 54.
[16] Al-Hattāb, 'Abd al-Raḥmān al-Maghribī al-Hattāb, *Mawāhīb al-Jalīl li Sharh Mukhtaṣār Khalīl* (Bayrut: Dār al-Kutub al-ʿilmiyyah, 1995), b.6 431, Ibn Qudāmah, *al-Sharh al-Kabīr* . . . , b.7, 149.

khuntha mushkil, either he or she must follow male or female method of praying. In addition, the *fuqaha'* of every school of jurisprudence have specified the ruling of inheritance for Muslims with *khuntha mushkil* by taking an average of two separate distributions for a male and a female respectively, or the lower of the two, depending on which school of *fiqh* one follows, to be assigned to them.[17]

There are some common conditions of *khuntha mushkil*, such as an infant who has both male and female reproductive organs and a person whose genitals seems to be in-between the usual male and female.[18] The second common condition of *khuntha mushkil* has four types. First, a person who does not have male or female genital but born with a noticeably large mound which he or she urinates from.[19] Second, a person with only one hole which he or she urinates and defecates from.[20] Third, a person who does not have male or female sex organ as well as buttocks but vomits everything he or she consumes.[21] Finally, a person who does not have any genitals but he or she urinates and defecates through the umbilical cord.[22]

Furthermore, all scholars from the schools of Islamic jurisprudence agree that if there are any complications in determining the sex of *khuntha* infants during childhood, they are advised to remain as *khuntha mushkil* until puberty.[23] Upon the onset of puberty, the signs to determine the individual's gender are: Secretion of semen or wet dream; menstruation; having sexual intercourse; pregnancy; giving birth; and the physical changes of puberty for boys and girls.

---

[17] Anam Shahid, "Inheritance of Hermaphrodite (Khunthā)," (academic exercise, Contemporary Issues in MFLO 1961, International Islamic University Islamabad, 2014), 15-16.

[18] *Mausu'ah fiqhiyyāh* . . . , b.20, 23.

[19] Al-Mardawī, ʿAlī ibn Sulaimān Ibn Aḥmad, *al-Inṣāf* (Bayrut: Dār iḥya' al-Turāth al-ʿArabi, 1975), b.7, 345.

[20] Ibn Qudāmah, *Al-Mughnī* . . . , b7, 121-122.

[21] Al- Bahutī, Manṣur ibn Yunus ibn ʿIdrīs, *Kashshāf Al-qinā' 'alā Matn Al-Īqna'* (Bayrut: Ālam al-Kutub, 1997), b.4, 475.

[22] Al-Sarakhsī, Muhammad ibn Aḥmad ibn Abī Sahl, *al- Mabsut* (Bayrut: Dār al-Ma'rifah, 1989), b.30, 93.

[23] Al-Nawāwī, *al*-Majmu' . . . , b.2, 53-55; al-Hattāb, *Mawāhīb al-Jalīl* . . . , b.6, 431-432; ibn ʿabidīn, *Radd al-Muhtār 'alā al-Dur al-Mukhtār* . . . , b.6, 728-799.

However, there are different opinions among the scholars of jurisprudence when it comes to the signs of *khuntha* during puberty.[24] They are the number of *khuntha's* ribs, the growth of pubic hair and hair on arms and legs of girls, the growth and fullness of breasts for girls, the production of breast milk and the tendency for *khuntha* to fall in love with either men or women. To start with, considering the number of ribs as a factor to differentiate a male from a female *khuntha,* some *Malikiyyah*, one of the *Shafi'iyyah* opinions, Hasan Albasri, Umair bin ʻAbid and ʻAli bin Abi Talib argue that in the human body, there are 24 rib bones which are divided into two sets of 12 curved, flat bone. To them a female will have more ribs than males after the ribs are completely grown. This is supported by two hadith.[25] The first hadith*,* narrated by Bukhari and Muslim, expresses that women were created from the rib. Allah's Messenger (S.A.W) said: "And I command you to take care of the women in a good manner for they are created from a rib and the most crooked portion of the rib is its upper part; if you try to straighten it, you will break it, and if you leave it, it will remain crooked, so I command you to take care of the women in a good manner".[26] The second hadith, narrated by Ibn ʻAbbas (ra) and other companions stated that Eve was created from Adam's rib while he was asleep.[27] Based on these hadith, these scholars said that Allah Almighty first created Adam and then created Eve from one of his ribs. Hence, Adam had less ribs than Hawa' (Eve). Therefore, the gender of a *Khuntha* can be determined through the number of ribs. Hence, they presumed that if the *khuntha* has less than 24 ribs, he is a male.

On the contrary, Hanabilah, the majority of the Hanafiyyah and Malikiyyah and another opinion from Shafi'iyyah*,* the number of

[24] Al-Zailāʻī, Uthmān ibn ʻAli, *Tabyīn al-haqā'iq Sharh Kanz al-Daqā'id wa Hasiah al-Shalābi*, vol. 3 (Egypt: Maktabah al-Kubra al-ʻAmiriyyah, 1313 AH), b.6, 216; al-Hattāb, *Mawāhīb al-Jalīl* . . . , b.6, 432-433; Al-Nawāwī, *al*-Majmu' . . . ,b.2, 55-56; Ibn Qudāmah, *al-Sharḥ al-Kabīr 'ala al-Muqni'* . . . , b.7, 149.

[25] Muhammad 'Illīsy, *Manhu Al-Jalīl Syahru 'Alā Mukhtaṣār Khalīl* (Bayrut: Dār al-Fikr, 1984), b.9 717; Al-Nawāwī, *al*-Majmu' . . . , b.2, 55-56.

[26] Al-Bukhārī, h.3084, "Chapter the Creation of Adam"; Muslim h.2671, Wasiyyah Woman, b.7, 400.

[27] Al-ʻAsqalānī, Aḥmad ibn ʻalī Ibn Hajar, *Fatḥ al-Bārī bi Sharḥ Saḥiḥ al-Bukhārī*, vol. 9 (Riyāḍ: Dār Ṭayyibah, 2005), 253.

ribs cannot be considered as a way in determining the genders of *khuntha*. The reasons are:[28] first, if the number of ribs determines *khuntha*, they should consider determining *khuntha* upon its brith, as the numbers s of ribs should be the same even before puberty. Second, the number of ribs is not legitimate as there are various opinions in the aggregate number of ribs that men and women can have.Third, if the number of ribs is significant to determine the state of *khuntha*, there is no need to rely on urination as a factor because ribs can be found in both infants and adults. Fourth, scientifically, parents cannot pass a lost rib to their children. Finally, there is no clear and solid evidence regarding the idea that men have fewer ribs than women as the Qur'an and Sunnah are not explicit on this. Religiously as well, the Qur'an does not mention anything explicit with regards to Hawa' being created from the rib of Adam (peace be upon them both). Rather, it states, "And from amongst His signs is that He created for you mates from among yourselves, so that you may dwell in tranquillity with them".[29] Many exegetes interpreted the phrase "from among yourselves" to mean that Hawa' was created from the rib of Adam (peace be upon them both). Yet, Imam al-Qurtubi and others interpreted the phrase "from among yourselves" to mean "from the same species," that is, human beings.[30]

We believe that the majority opinion is the preferred view as it is more in line with modern science particularly when the authority of the hadith by the opponents is un-Qur`anic. The reason is that men and women have 12 pairs of ribs while only a few individuals have 13 or 11 pairs of ribs based on modern medicine.[31] The belief that a lost rib, or a cut-off thumb, or a chopped-off tail, could pass from parent to a child was a theory, derived hypothesis made by French biologist, Jean-Baptiste Lamarck, which has long been discredited.[32]

---

[28] Al-Nawāwī, *al-Majmu'* . . . , b.2, 55-56; Ibn Qudāmah, *al-Sharḥ al-Kabīr 'ala al-Muqni'* . . . , b.7, 149.

[29] Surah *Ar-Rum* 30: 21.

[30] Al-Qurtubī, Abu ʿAbdullāh Muhammad ibn Aḥmad ibn Abu Bakr al-Anṣāri, *al-Jamiʿ li Ahkam al-Qur'ān*, vol. 1 (Bayrut: Mu'assasat al-Risalah, 1980), 200.

[31] *Al-fiqh wa al-Masāil al-Ṭibbiyyah*, accessed August 22, 2016, www.rafed.net

[32] Wayne Simpson, *Adam's Rib,* accessed August 25, 2016, http://www.creationtips.com/ribs.html

If you have a finger or toe amputated, it would not mean you would produce children with a missing finger or toe. So, a rib taken from Adam does not mean that any of his sons and daughters would have a rib missing as men and women have the same number of ribs.

Secondly, men typically start developing facial hair upon attaining puberty. For women, the first outward signs of breast development begin to appear during adolescence and some of them even produce milk. Scholars differ on this. According to the majority of scholars of Hanafiyyah, Malikiyyah and Hanabilah, the development of facial hair, the growth of breasts and the production of milk are signs to determine the gender of *khuntha mushkil*.[33] They argue: first, the growth of facial hair is a characteristic of being male; second, breast development and milk production are vital signs in the human female; finally, these signs validate the puberty of humans, along with any of these signs will appear being the benchmark to ordain the gender of *khuntha mushkil*. On the other hand, scholars from al-Shafiʿiyyah believe that the development of facial hair, the growth of breast and the production of milk are not included as the signs to determine the gender of *khuntha mushkil*. Their arguments include: 1) A person may have unique characteristics which differ from other people; 2) There is no disagreement among scholars that if a man does not grow a beard in a timely manner, it does not mean that the person is a woman; 3) if a woman does not grow breasts on time, it does not mean she is male; and finally, the production of milk by a *khuntha* cannot be definitive sign of femaleness.

Moreover, modern Shafiʿiyyah believe that the beard growth, the breast development and the breast milk production are not indications to determine *khuntha*. There are a few reasons for this. First, scientific study does not validate those signs as the benchmark to differentiate between male and female. Another reason that supports this statement is that hormones, genetics and many other factors can affect the rate of facial hair growth and hormone replacement therapy can be the cause for facial hair in a *khuntha* individual and even non-*khuntha* individuals. Moreover, with the technology we have nowadays, people with beards are probably on

[33] Al-Sarakhsī, *al-Mabsut* . . . , b.30, 104-105; al-Hattāb, *Mawāhīb al-Jalīl* . . . , b.6, 424-432; Ibn Qudāmah, *al-Mughnī* . . . , b.7, 116.

hormone therapy or even had hair transplants. Besides that, the shortage of sex steroids or sex hormones that control metabolism of a person's sex, which is produced by the adrenal glands, produces adrenaline and small amounts androgens. This may result in a female looking like a male and vice versa.[34] In conclusion, science shows that physical/physiological signs of a person are not points of reference to determine the gender of the *khuntha* to which we tentatively subscribe.

Finally, the tendency to like the opposite sex is another marker between determinate and non-determinate intersex, the so-called sexual orientation according to Shafi'iyyah and al-Hanabilah. To them, liking one gender is one way to indicate the gender of khuntha mushkil. If the khuntha likes men, then she is considered as female. Conversely, if the khuntha likes women, then he is considered as male.[35] Their main arguments are:[36] First, according to the Qur'anic, Allah has created all creatures in pairs, male and female, and they tend to have interest (liking) in one another. It is the law of nature since the Qur'an has included them all in the verse of Surah Zariyat:" "All things are in twos: sex in plants and animals, by which one individual is complementary to another; in the subtle forces of nature. Day and Night, positive and negative electricity, forces of attraction and repulsion…"[37] Lastly, when a man desires to like a woman and a woman desires to like a man, it means that a khuntha has desire to like one of the genders. If that desire comes from the inside of their souls while nobody else knows it except themselves, this recognition can be accepted. Additionally, it is considered as an inner sign while there are weaknesses in the outwardly signs.

The majority of scholars of Hanafiyyah and Malikiyyah, on the other hand, disagreed by arguing:[38] first, the tendency to like one

---

[34] Robert M. Sargis, "An Overview of the Adrenal Glands, Beyond Fight or Flight,", accessed September 17, 2016, http://www.end ocrineweb.com/ endocrinology/overview-adrenal-glands.

[35] Al-Nawāwī, *al-Majmu'* . . . ,b.2, 56; Ibnu Qudāmah, *al-Mughnī* . . . , b.7, 159; al-Sayuti, *al-Ashbāh wa al-Naẓāīr* . . . , 244.

[36] Al-Nawāwī, *al-Majmu'* . . . , b.2p.65.

[37] Suraḥ al-Zāriyāt, 51: 49.

[38] Al-Kasānī, *Badā'i' al-Ṣonā'i'* . . . , b.7, 330; al-Hattāb, *Mawāhīb al-Jalīl* . . . , b.6, 433; ibn ʿabidīn, *Radd al-Muhtār 'ala ad-Dur al-Mukhtār* . . . , b.29, 240.

gender is an intangible thing, which means that evidence is not strong enough to be the indicator. Secondly, the use of sexual orientation to determine *khuntha* has no support from al-Qur'an or Hadith. Finally, it gives rise to moral corruption especially in the modern era,[39] where 10% of the world's population are identified as lesbian, gay, bisexual or transgendered.[40]

To conclude, it is argued that the more accurate view is that of the Hanafiyyah and Malikiyyah.[41] The acknowledgement from *khuntha* himself/herself cannot be averred or asserted as he/she may exaggerate. In general, the feeling or instinct may not always be correct and is probably influenced by external influences such as upbringing home, environment, culture and others. As a rule, the determination of *khuntha* must be based on the fundamentals of *Shari'ah*. The inner signs, such as the tendency to like one gender are considered as unfixed characteristics that comply with today's contemporary science standards. The feeling or instinct as the characteristic to determine maleness or femaleness may be a dangerous indicator because it allows using desire as a yardstick in deciding what they like for themselves. Eventually, there is still difficulty to ascertain whether the feeling is true or just mere lust. This issue needs to be explored further by Muslim jurists with experts from medicine and psychology.

Medical Theory of Intersexuality

From medical perspective, intersexuality is a relatively rare congenital reality encompassing numerous types of anomaly present at birth in which a person's reproductive or sexual anatomy do not indicate if the person is male or female. Scientifically, unusual genetic or hormonal patterns can lead to cause this condition. There are many types of intersex conditions that are different in structure or

[39] Al-Kasānī, *Badā'i' al-Ṣonā'i'* . . . , b.7, 330; al-Hattāb, *Mawāhīb al-Jalīl* . . . , b.6, 433.

[40] Rita Lee, "Health care problems of lesbian, gay, bisexual, and transgender patients," accessed July 15, 2016, http://www.ncbi. nlm.nih.gov/pmc/articles/ PMC1070935/

[41] Umat Shahabī, "'Amaliyyah Taḥwīl al-Jins: wa Sāruhā al-Muḍmarāh," *Majallah Furqān Islamiyyāh*, accessed August 22, 2016, www.forgan.net.

appearance from those usually associated with normal definitions of male and female.[42]

According to Carl Gold, approximately in one out of every 100 births, tiny errors may occur during the various stages of foetal sex differentiation, causing an infant's body to develop abnormally.[43] Problems in the formation of chromosomes, gonads, or external genitals can lead to a range of intersex conditions. For example, a baby boy with an atypical penis may have ovaries in which ova or eggs were produced instead of a set of testes. A baby also may have genitals that look in-between the typical male and female types, such as a girl born with a noticeably large clitoris or be deficient in a vaginal opening. Similarly, this can be seen in cases where a boy born with a notably small penis or with a separated scrotum, so that it has formed more like labia.[44]

Medical experts today differ in opinion from that of classical scholars to determine the types of intersex. Classical scholars standardise the types of intersex by looking into external signs of intersex. Today's knowledge and technology, however, give medical experts a thorough overview into the human body. Modern medicine discovered miscellaneous abnormalities in people with intersex condition. A person's sex is not easily classified by only looking at his/her sexual organs. The partial or strange development of the internal reproductive organs must also be considered. For example, there is a contradiction between the internal genitals and the external reproductive organs. Some of them were born with female genitalia but have male reproductive organs inside and vice versa.[45] Confirming to this, Ani Amelia said, "We can say that some DSDs are intersex, some DSDs are not. Some DSDs only have mutilation. A few years ago, they only looked at external genitalia only. But now medical development is growing, we don't look at outside only, but

[42] Katy Steinmetz, "This is What Intersex Means", *Time*, November 21, 2014, accessed October 6, 2016, http://time.com /3599950/intersex-meaning/.

[43] Carl Gold, "The Intersex Spectrum", *PBS Online*, accessed October 6, 2016, http://www.pbs.org/wgbh/ nova/body/intersex-spectrum.html.

[44] Ibid.

[45] Jared Diamond, "Why Some Babies with Male Genes Have Female Parts," *Discover*, accessed October 9, 2016, http://discovermagazine.com/1992/jun/ turningaman62.

we also look on the internal system too such as chromosomes, hormones, and ovary or testis".[46]

The anomalies in sex chromosomes is also one of the factors that influences the complexity of an intersex's gender. Modern medicine indicates that one pair of chromosomes is the difference between men and women. Chromosomes derived in matching pairs, one pair from each parent. For instance, humans have 46 chromosomes, 23 from the mother and another 23 from the father. With two sets of chromosomes, children inherit two copies of each gene, one from each parent. Women have two X chromosomes in their cells, whereas men have one X and one Y chromosome.[47] Inheriting too many or not enough copies of sex chromosomes can lead to serious problems. For example, women who have extra copies of the X chromosome are usually taller than average and some suffer from mental retardation. Men with more than one X chromosome have Klinefelter syndrome, a condition characterised by tall stature and, often, impaired fertility. Another syndrome caused by the imbalance in the number of sex chromosomes is 'Turner Syndrome'. Women with this condition have one X chromosome only. They are usually very short, do not undergo puberty and some may have kidney or heart problems. Similarly, anomalies of sex chromosomes can lead to unusual development of physical sex appearances.[48]

Medically, there are numerous forms of genital abnormality conditions in the birth of some human babies. The most frequent one's are as follows:

I-Intersex Condition with External Malformation of Sex Organ

Intersex infants with commonly external sexual organs that do not fit into the typical definitions of a male and female includes:

1. *Androgen Insensitivity Syndrome (AIS)*

AIS condition occurs in approximately 1 in 20,000 XY births. It has

[46] Refer to interview E1AAPPUKMKL

[47] HoG staff, "Basic Genetics", *Hemophilia of Georgia*, accessed October 7, 2016, http://www.hog.org/ handbook/section/2/bas ic-genetics.

[48] Judith E Owen et al, *Gender Development* (New York: Psychology Press, 2009), 49.

three sub- types; the Complete Androgen Insensitivity Syndrome (CAIS), the Mild Androgen Insensitivity Syndrome (MAIS) and the Partial Androgen Insensitivity Syndrome (PAIS). They are distinguished by the degree of genital masculinisation. CAIS is implied when the external genitalia are that of a normal female, while, MAIS points to external genitalia of a normal male. PAIS, however, is when the external genitalia are partially, but not fully masculinised. These conditions are genetic faults that are usually passed down (except for infrequent natural mutations) from mother to child[49] and affect sexual development before birth. When the body cannot use androgens, the Complete Androgen Insensitivity Syndrome (CAIS) may develop. AIS may not be discovered until puberty as they are infertile with no menstruation.[50]

New-born infants with AIS generally have male chromosomes (XY chromosomes) but with female appearance and the abnormal external genital typical of a female. They are born with undescended or partially descended testes that prevent them from having fallopian tubes and uterus. The testes are usually connected to a short vagina with no cervix. In some cases, the vagina is almost absent. However, if they are born with AIS, they will have masculinised female external Sex organs such as an enlarged clitoris or clitoromegaly or under-masculinized male external sex organs such as a micropenis, which is an unusually small penis. The condition can be caused by a variety of hormonal and/or chromosomal conditions.[51] Nevertheless, as a congenital condition, this buried or hidden penis is rare, but it may also develop due to aggressive circumcision, obesity and aging with an overlying fold of abdominal fat and skin, or chronic inflammation. In this state, a typical-sized penile shaft is hidden beneath the outward of the penile skin. Additionally, the penis may also be partly or completely buried in the abdomen, thigh or

[49] Nhs staff, "Androgen Insensitivity Syndrome," *NHS choices*, accessed October 25, 2016, http://www.nhs.uk/conditions/ Androgen-insensitivity-syndrome/Pages/ Introduction.aspx.

[50] Christian Nordqvist, "What is Androgen Insensitivity Syndrome (AIS)?" *Medical News Today*, accessed October 14, 2016, http://www.medicalnewstoday.com/ articles/186480.php.

[51] Fima Lifshitz, *Pediatric Endocrinology*, vol. 2 (New York: Marcel Dekker, 2004), 384.

scrotum.[52] AIS's Intersex normally grow breasts at puberty, but most of them will have no underarm or pubic hair.

However, AIS, has its sub-categories. For instance, 60 percent of CAIS have vaginas with rudimentary penises with one descended gonad that might be able to experience sexual interaction. 90 percent of them may more or less develop a vagina with no uterus. Raising infants with type of AIS as female could be an effective solution. PAIS infants, on the other hand, may develop a short potent penis or a rudimentary penis which is unable to experience sexual interaction. This is caused by a condition called as *cloacal exstrophy*. For this type of AIS, raising them as females have yielded inconsistent outcomes such as femininity identity but masculine personality or vice versa. However, nurturing them as males brings about more problems as there is a probability that they may experience psychological problems and are predisposed to criminal behaviour.[53]

2. *5-Alpha-Reductase Deficiency (5-ARD)*

Similar to AIS, 5-ARD have abnormal external genitalia typical of a female, the XY chromosome and the appearance of a girl. However, the reason for this condition is different from AIS. They have no internal female sex organs like the fallopian tube or uterus. Nevertheless, they have intact testes but are unable to convert testosterone into dihydrotestosterone which is crucial in the development of male sex organs. During puberty, increased testosterone may help develop masculine features such as an enlarged phallus, the growth of body and facial hair, the Adam's apple, the deepening of the voice, and no breast development.[54] The diagnosis of such condition is often conducted on the onset of such individual's puberty when she does not have menses or any increase in their

[52] Robert Kotler, "Secrets of a Beverly Hills Cosmetic Surgeon", accessed October 15, 2016, http://blogs.webmd.com/cosmetic-surgery/2011/06/a-subject-rarely-discussed-hidden-or-buried-penis.html.

[53] C. R. J. Woodhouse, "Intersex Surgery in the Adult," *BJU International* 3 (2004): 61.

[54] Nasrollah Maleki et al, "5-Alpha-Reductase 2 Deficiency in a Woman with Primary Amenorrhea", *Hindawi: Case Reports in Endocrinology* (2013), http://dx.doi.org/10.1155/2013/631060

testosterone levels indicates the enlarging of the clitoris. Intersex individuals with 5-Alpha-Reductase Deficiency are also called as male pseudo-hermaphrodites.[55] Their perplexing feature is that if they are nurtured as a girl from birth due to their female genitalia, they will start to masculinise during adolescence.[56] Today, there is a near-universal early treatment to help patients with 5-Alpha-Reductase Deficiency via prenatal diagnosis and postnatal care.

3. *Swyer Syndrome/ Mixed Gonadal Dysgenesis (MGD)*

The Swyer Syndrome is also known as XY gonadal dysgenesis. In the Swyer Syndrome, chromosomal abnormality causes a child to be born with undeveloped sex glands, leading to gonadal dysfunction. Their traits include external genitals with indefinite shape, making it difficult to classify them as a female or male; minimally developed gonad tissue instead of testes or ovaries. A child born with this syndrome looks like a typical female. She will not develop most secondary female sex characteristics without hormone replacement therapy because streak gonads are incapable of generating oestrogen and androgens. This condition is often detected during puberty when periods are absent and there is slight or no breast development.[57] Most cases of MGD implicate an unusual chromosomal pattern called a mosaic, children born with this condition having 46XY or 45XO chromosomes.[58] This is due to the reduction or non-attending of testosterone biosynthesis which causes virilisation to be diminished or go missing.[59]

---

[55] Anne Fausto-Sterling. "The Five sexes: Why Male and Female re not Enough," accessed October 5, 2016, http://capone.mtsu.edu/phollowa/5sexes.html.

[56] Nancy Ehrenreich and Mark Barr, "Intersex Surgery, Female Genital Cutting, and the Selective Condemnation of Cultural Practice," *Journal of Harvard Civil Rights-Civil Liberties Law Review* 40 (2005): 97.

[57] Binta Leigh, Christoph Dorn, and Uwe Ulrich. "Gonadal Dysgenesis," *Gynacol Gebrtsmed, GynakolEndokrinol* 5, no. 2 (2009): 82-94.

[58] "Mixed Gonadal Dysgenesis Symptoms & Causes," accessed Ocotber 11, 2016, http://www.childrenshospital.org/conditions-and-treatments/conditions/mixed-gonadal-dysgenesis/symptoms-and-causes.

[59] A. Ritcher-Unruh et al, "Leydig Cell Hypoplasia: Absent Luteinizing Hormone Receptor Cell Surface Expression Caused by a Novel Homozygous Mutation in the

4. *Leydig Cell Hypoplasia (LCH)*

Similar to Androgen Insensitivity Syndrome (AIS), infants with Leydig Cell Hypoplasia (LCH) have XY chromosomes and may have genital abnormalities. Affected males may have a small penis (micropenis) and a hypospadias, which is an opening in the urethra located at the bottom of the penis or a scrotum separated into two lobes known as the bifid scrotum. With these abnormalities, the external genitalia are normally female but may occasionally seem slightly vague whether it is male or female. Even though they are chromosomally male, but they may develop as girls with no uterus.[60] LCH condition is inherited in an autosomal recessive pattern. This means that both copies of the gene in each cell have mutations. The parents of an individual with an autosomal recessive condition each carry one copy of the mutated gene, but they typically do not show signs and symptoms of the condition. There are no signs of male or female characteristics for infants with this condition during puberty except for the possible growth of body hair.[61]

5. *Progestin Induced Virilization (PIV)*

Progestin Induced Virilization (PIV) is a disorder caused by prenatal exposure to exogenous androgens or high doses of certain weakly androgenic synthetic progestogens, most commonly progestin. Progestin is a drug which was administered to prevent miscarriage in the 1950's and 1960's and it is structurally related to testosterone. It can masculinise (virilise) the external genitalia of a female foetus during susceptible times in pregnancy. This can, in some cases, result in ambiguous genitalia. XX people affected in-utero by virilising hormones can be mature normally with normal fertility but may have a range of sex phenotype such as males with no testes or females with a larger clitoris.[62]

Extracellular Domain," *The Journal of Clinical Endocrinology & Metabolism* 89, no. 10 (2004): 5161–5167.

[60] Ibid.

[61] Ibid.

[62] ISNA staff, "Progestin Induced Virilization", accessed October 27, 2016, http://www.isna.org/faq/ conditions/progestin.

6. *Congenital Adrenal Hyperplasia (CAH)*

Approximately 1 in 10,000 to 18,000 children are born with CAH condition. However, it does not cause intersexuality in those with XY chromosomes. Hence, the prevalence of CAH-related intersex is about 1 in 20,000 to 1 in 36,000. CAH can cause an in-utero baby with XX chromosomes. Such an infant is born with internally normal uterus and ovaries to develop ambiguous external masculine genitalia due to large amounts of androgen hormones produced by the adrenal glands. This same child may exhibit irregular menstruation and experience feminising puberty signs. They also may have more body hair than typical girls from their family.[63] CAH also can be described as a female pseudo hermaphrodite.[64]

7. *Ovo-testes (formerly called "true hermaphroditism")*

Ovo-testes refers to the histology of a gonad containing both ovarian and testicular tissues. Such gonads have been found solely in people with the Ovotesticular Disorder of Sexual Development (OT-DSD) which was once called as true hermaphroditism because they may have both ovaries and testes. In other words, a person might be born with binary ovotestes, one ovary and one ovotestes, or with some other combination.[65] The fact that a person has ovotestes would not tell you what his or her genitals would look like when he or she was born. Some people with ovotestes may look like a normal male, a normal female or androgynous in terms of genital growth.[66]

8. *Aphallia*

Aphallia is an extremely uncommon condition with an occurrence of 1 in every 30 million births where the phallus or component of external genitalia (penis or clitoris) is absent. The cause of aphallia is unknown but it is often associated with other internal anomalies such

[63] Ehrenreich and Barr, "Intersex Surgery, Female Genital . . . , 101.
[64] Sterling, "The Five sexes . . . ,
[65] Marshall Cavendish, *Sex and Society*, vol. 2 (New York: Marshall Cavendish Corporation, 2010), 439.
[66] Ibid.

as cardiopulmonary or musculoskeletal.[67] An infant born with this condition may be the result of a common pregnancy with no family history of congenital abnormalities. Aphallia in a male is also known as *penile agenesis* and may come together with *testicular agenesis*. They usually have whole or partial developmental failure of the genital tubercle[68].

9. *Aromatase Deficiency (AD)*

Aromatase Deficiency (AD) is a very rare congenital malformation that results in decreased oestrogen and increased androgens due to the absence of normal aromatase activity. The aromatase enzyme can overpower the effects of temperature: if exposed to more aromatase at a male-producing temperature, the organism will develop female and conversely, if exposed to less aromatase at female-producing temperatures, the organism will develop male. The condition has been linked to a gene mutation.[69] XX females with aromatase deficiency are usually diagnosed with ambiguous genitalia at birth. For this condition, ovarian cysts and delayed bone maturation can occur during childhood and adolescence. Most will not develop normal secondary sex characteristics.[70] However, XY males are considered as typical males as they do not have obvious anomaly at birth.

10. *Klinefelter Syndrome (KfS)*

People with Klinefelter Syndrome (KfS) inherit an extra X chromosome from one of their parents, resulting in an XXY chromosome as a substitute of the other typical XY. The X chromosome is not a "female" chromosome and is present in every person with this syndrome. Klinefelter occurs about 1 out of 500 to 1 out of 1000 lives in male births which makes this syndrome quite

[67] Vernon A. Rosario, "The History of Aphallia and the Intersexual Challenge to Sex/Gender," *Wiley Online Library*, http://onlinelibrary.wiley.com/doi/10.1002/9780470690864.ch13/summary.
[68] Ibid.
[69] Carol A. Bocchini, "Aromatase Deficiency", *Johns Hopkins University*, accessed October 29, 2016, http://www.omim. org/entry/613546
[70] Ibid.

common. Having extra X chromosomes can cause a male to develop abnormal male physiology. The testes are quite small (about half the typical size) and quite firm. After puberty, the absence of sperm in the ejaculation prevents them from having a normal sex life. Children with Klinefelter are usually born with male genitals. However, during puberty their masculine pubertal development are not very strong and they may develop sparse body hairs. Sometimes, they may even grow breasts. Although most children with this syndrome grow into men, some of them do develop atypical gender or opposite individualities.[71] Another variation of Klinefelter Syndrome is 48, XXXY or 48, XXYY Syndrome. This syndrome presents similar symptoms with Klinefelter. Yet, it also shows other abnormal developments and conditions such as developmental delays, autism, depression and anxiety.[72]

11. *Hypospadias*

Hypospadias refers to a defect in male genitalia where the urethral meatus ("pee-hole") is located on the underside, rather than at the tip of the genital. In some hypospadias, the meatus may be located on the underside of the penis, in the glans. In more obvious hypospadias, the urethra may be open from mid-shaft out to the glans, or the urethra may even be missing entirely, with the urine exiting from the bladder behind the penis. It is usually detected at birth and affects approximately about one in 150 boys, making it one of the most common birth defects.[73] In infants with hypospadias, the urethra develops atypically during weeks 8–14 of pregnancy. The unusual opening can develop anywhere from the bottom part of the penis to the scrotum.[74] Hypospadias can also happen in other infants with

[71] Michael Noble, "Representations of Klinefelter Syndrome", accessed November 8, 2016, https://myhs.ucdmc. ucdavis.edu/documents/41620/0/Representations+of+ Klinefelter+Syndrome.pdf/ccb7cf91-0c43-41ed-8eef-e3dcf7b3c5a5.

[72] Ibid.

[73] RCH Urology Department staff, "Hypospadias 1 - What is it", *The Royal Children's Hospital Melbourne*, accessed October 5, 2016, http://www.rch.org.au/ kidsinfo/fact_sheets/Hypospadias_1_What_is_it/.

[74] S. L. Carmichael et al, "Maternal Progestin Intake and Risk of Hypospadias," *Arch Pediatr Adolesc Med*. 159 (2005): 957–962.

intersex conditions like Klinefelter Syndrome (XXY) or De La Chapelle/XX Male Syndrome.[75]

II- Intersex Condition with Abnormal Internal Reproductive System

There are also instances where intersex infants who have developed normal sexual anatomy that fit typical definitions of male and female genders but have abnormal internal reproductive systems. Babies born with such a condition are:

1. *Persistent Müllerian Duct Syndrome (PMDS)*

Persistent Müllerian Duct Syndrome (PMDS) is a condition where a male has normal male external genitalia but has a characteristically small and underdeveloped uterus or other female gonadal such as fallopian tubes and cervix. It occurs when Anti-Müllerian Hormone (AMH) (or Müllerian Inhibitory Substance) is not able to cause regression of the Müllerian ducts in foetal male development because of either a mutation in the AMH gene or in the AMH receptor gene (chromosomes 19 and 12, respectively).[76] However, patients often have unilateral or bilateral cryptorchidism, sometimes with an inguinal hernia as a direct result of the close structural relationship between the gonad and the retained Müllerian duct structures. The failure of Mullerian duct regression in genotypically normal male is associated with the presence of a uterus and fallopian tube.[77] The chromosomal structure (XY) reflects typical male development. Patients with PMDS always have the normal male karyotype of 46, XY. The condition is usually detected by using pelvic ultrasound, MRI or abdominal surgery.[78] The diagnosis of PMDS is often made during treatment of related abnormalities such as an inguinal hernia

[75] Ibid.
[76] Ibid.
[77] Gutte A.A. et al, "Transverse Testicular Ectopia Associated with Persistent Mullerian Duct Syndrome – The Role of Imaging," *British Journal of Radiology* 81, no. 967 (2008): 176-178.
[78] Mahmoud M. Shalaby et al, "The Management of the Persistent Müllerian Duct Syndrome", *US National Library of Medicine*, accessed October 21, 2016, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4435512/.

and undescended testes, when a uterus and/or fallopian tube is found along the undescended testes in genotypically and phenotypically normal males.[79]

2. *XX Male Sex Reversal Syndrome/de la Chapelle (XXMSPS)*

In approximately 4 or 5 in 100,000 individuals, there is a rare condition known as XX Male Sex Reversal Syndrome (XXMSPS) or *de la Chapelle*[80] in which an XX individual has chromosomal abnormality occurring in the sex chromosomes. Infants with this condition have XX for their 46 chromosomes, which are typically the combination of sex chromosomes for females. However, these individuals have bodies that develop male genitalia, testes and no female sex organs. Men with XX Male Sex Reversal Syndrome also may have hypospadias or undescended testes at birth. Nevertheless, most appear to be typical males at birth and do not receive a diagnosis until after puberty. A very small percentage of people with this condition have both testicular and ovarian tissue in their gonads. Many men usually do not know they have XX Male Syndrome until they are assessed for sterility.[81]

III- Intersex Condition with Chromosomal Abnormality

Normal females have two X chromosomes in their cells (XX), whereas males have one X and one Y chromosome (XY). Nevertheless, there are conditions where intersex infants have normal sexual anatomy that fits the typical definitions of a male or female but suffer an imbalance in the number of sex chromosomes in their body systems. Babies born with such conditions are as follows:

---

[79] H.M. Dekker et al, "Persistent Mullerian Duct Syndrome," *Radiographics* 23 (2003): 309-313.

[80] *De la Chapelle* was the scientist who discovered this syndrome. Jordan Gertner, "XX Male Syndrome or de la Chappelle Syndrome", accessed November 6, 2011, https://prezi.com/wheo6mwjfjpy/xx-male-syndrome-or-de-la-chappelle-syndrome/.

[81] T. Wang et al, "46, XX Male Sex Reversal Syndrome: A Case Report and Review of the Genetic Basis," *Wily Online Library*, accessed November 8, 2016, http://onlinelibrary.wiley.com/doi/10.1111/j.1439-0272.2008.00889.x/full.

1. *Turner Syndrome (TS)*

In Approximately 1 in 2,500 humans, there is a chromosomal abnormality known as Turner Syndrome (TS) or Monosomy X signifying the absence of one X chromosome or no second sex chromosome (X or Y). In a person with TS condition, female sex characteristics are usually present, but have abnormalities in reproductive function compared to normal females. Such people can normally be recognised through a number of characteristics in the general population such as swelling of hands and feet (lymphedema), short height, low hairline, low-set ears, wide chest with widely spaced nipples and sterility.[82]

2. *Triple-X Syndrome (TXS)*

Triple-X Syndrome, also known as o trisomy X, XXX syndrome, triplo-X, or by karotype 47,[83] is a rare chromosomal genetic syndrome with the presence of an additional X chromosome. This would lead to the formation of XXX (or the rarer XXXX or XXXXX), in a female (XX). These people are females, as they have no Y chromosome. However, they have an additional X chromosome. This chromosomal change does not cause obvious abnormality to one`s physical appearance. Yet, females with this condition may be taller than average. Some may suffer from problems such as infertility.[84]

3. *Jacobs/XYY Syndrome*

Jacobs or XYY Syndrome is a rare chromosomal genetic syndrome where a person has an additional Y chromosome, leading to XYY chromosome. The person with this condition is male and has normal sexual development. This allows him father children. However, the person may experience minor features due to an excess of male

[82] Jaime L Frias et al, "Health Supervision for Children with Turner Syndrome", *American Academy of Pediatricsvia,* 111, (2003): 692-702, doi: 10.1542 peds.111.3.692.
[83] Ibid.
[84] Maarten Otter, "Triple X Syndrome: A Review of the Literature," *European Journal of Human Genetics* 18 (2010): 265–271.

hormones. Men with this condition may be taller than average, have excess pimples and in some cases, are aggressive.[85]

4. *Mosaic XY/XO and XY-Turners Syndrome (MTS)*

A person is said to have a "mosaic karyotype" when he or she has incomplete sexual differentiation associated with sex chromosomes aneuploidy and mosaicism. This condition is named as mosaic karyotype due to the structure of chromosome which is similar to tiles mosaic floors or walls and there is more than one type of cell. The majority of people who are a mosaic of XY cells (male) and XO cells (Turner's syndrome and female) exhibit male physiology. Roughly, as five percent of women are born with Turner's syndrome and about five percent are born with ambiguous genitals.[86] Most XY/XO children appear to be normal, healthy boys.

Comparison

From the above analysis, it can be observed that there are points of convergence and incongruence between Islamic jurisprudence and science. To start with, Islamic law and science concord with each other on issues including: First, intersex condition is a biological birth defect. Second, intersex can be real or false, i.e., true hermaphrodite and pseudo-hermaphrodite. And finally, all intersex conditions may not be apparent at birth but come to surface when such an individual obtains puberty (adolescent). That is why the classical jurists spoke about sexual traits of an indeterminate intersex upon puberty. Medical science also cites example of a person who does not suffer this condition until he or she reaches the age of adolescence. Then, he may find himself/herself infertile, or accidentally discovers his/her condition via a health check-up.

Nonetheless, medicine diverges from Islamic jurisprudence from some other aspects. First, classical Muslim jurists focus on genital formation and its function in the case of new-borns with

[85] Transfaith staff, "Types of Intersex Conditions", *Trans Faith Institute*, accessed November 9, 2016, http://www.transfaithonline.org/empower/basics/intersex/types/#c4897.

[86] Lianne Simon, "XY/XO", accessed September 23, 2016, https://muse.jhu.edu/article/589231.

abnormal genitals as the basic criteria to differentiate between true and pseudo hermaphrodites. Modern medicine, on the other hand, does not only look at the shape of the external genitals but also examines the internal urinary tract, chromosomal type and reproductive systems to differentiate between the two. For instance, an intersex with 5-ARD born with female like genital does not have female internal reproductive system but if raised as a girl, upon puberty would show male traits. Or an Intersex with PMDS condition can be classified as a male but has no female reproductive system. Second, while some classical Muslim jurists considered secondary gender characteristics as definitive indicator of true masculinity or effeminacy at puberty, science does not attach any credit to such criteria. For instance, an intersex with 5-ARD condition is born with female like genital but if raised as a girl, upon puberty would show male traits, thus cannot be considered as a female by science and the position adopted by other jurists. Finally, intersex as a class of human species could continue to exist if we go by juristic theorisation of intersexuality. That is why the topics of marriage and inheritance in classical books of *fiqh* occupy a prominent place for social placement of such a category. Medical science, on the other hand, is poised to overcome this phenomenon via hormonal and/or surgical measures, albeit of foul cry against it by right groups and sexual plurality protagonist in the West.

Muslim juridical response to this is also polemical. Juridical bodies like *Dar al-Ifta* of Egypt and *Fiqh* Academy in Makkah, and contemporary jurists like Nasr Farid Wasil and Muhammad Ra`fat Fawzan, welcome this medical technology and have endorsed it to overcome sex indeterminacy provided that: First, the outcome of the determination of intersex must be certain. Second, medical intervention is the only remedy. Third, the real sex of the intersex can be predicted with certainty. Fourth, the procedure of genital normalising surgery is carried out based on the consent from the legal guardians. Lastly, the procedure is managed and carried out by competent physicians.[87]

[87] "Fatwā Dār al-Iftā bi Wazārāt al-`Adl al-Miṣriyyah," 2012; Sayed Sikandar Shah Haneef and Mahmud Zuhdi, "Medical Management of Infant Intersex: Juridico-ethical Dilemma of Contemporary Islamic Legal Response," *Journal of*

Dissenting voices, however, are sceptical about its legitimacy in view of the uncertain outcome of such medical intervention and its procedural ethical risks which normally begins when an infant is three months old. For instance, Haneef maintains what if an infant with Congenital Adrenal Hyperplasia (CAH), after undergoing genital normalisation surgery as a boy during early childhood, develops a feminine personality and wants to be reassigned as female once he reaches puberty, then the ethical question of the permissibility of sex reassignment for the intersex can become a real clinical issue.[88] Additionally, subjecting such an individual to invasive surgical procedures as a child or an infant is also questionable. Later in life, what would be the psychological effects of surgical interference on an intersex baby? And why is that the approach adopted by classical jurists on distinguishing between *khuntha wadih* and *khutha mushkil* is not given due deliberation?[89]

Conclusion

From the foregoing, in can be concluded that intersex condition which represents an exception to the binary classification of human species as males and females upon birth, regardless of its detection by the naked eyes or via laboratorial test is a reality of human reproduction. Islamic law the thrust of which is to make known the God-ordained rules and their juridical extrapolation to humans also has endeavoured to locate the correct *legal corpus* applicable to intersex as a special class. Accordingly, it has developed its own juridical criteria to determine the sex of such babies from infancy until puberty. Nevertheless, this phenomenon proved to be a complex one which is beyond the juristic compass to overcome it once and for all. Hence, the topics of Islamic law dealing with *khuntha,* both *mushkil* and *wadih,* still evokes juridical discourse among the experts. Medical science with its allied disciplines equipped with experimental apparatus was expected to demystify the phenomenon. Nevertheless, beyond, naïve optimism that modern science has

Religion and Science, 50, no. 4 (2015): 809-829.

[88] Sayed Sikandar Shah Haneef and Mahmud Zuhdi, "Medical Management of Infant Intersex . . . ,

[89] Ibid.

solved this juridical puzzle for one go, the issue still seems to be more complex especially to be fixed with definitive precision any time soon. This we made it clear when delineating on medical conception of intersexuality. However, the comparison between juridical theory and medical view of intersex has the advantage of modernising Islamic law from three aspects:1) Internal reproductive system is as important as external genitalia in sex determination for an intersex; 2) No value can be attached to secondary sex characteristics when an individual has normal genitalia; 3) Lastly, caution is needed when adopting medical management of intersexuality by refusing early intervention, as it may lead to unfortunate consequences.

AL-SHAJARAH
Vol. 23, No. 2, 2018

Contents

ARTICLES IN VOL. 23 No. 1, 2018

ARTICLES IN VOL. 23 No. 2, 2018

WoS-Indexed under *Arts & Humanities Citation Index, Current Contents/Arts and Humanities* and **Scopus**

ISSN 1394-6870