

# MEDICAL MANAGEMENT OF INFANT INTERSEX: THE JURIDICO-ETHICAL DILEMMA OF CONTEMPORARY ISLAMIC LEGAL RESPONSE

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*Abstract.* Technological advances in the field of medicine and health sciences not only manipulate the normal human body and sex but also provide for surgical and hormonal management of hermaphroditism (intersexuality). Consequently, sex assignment surgery has not only become a standard care for babies born with genital abnormalities in the West but even in some Muslim states. On the positive side, it goes a long way in saving children born with abnormal genitalia from numerous legal interdictions of the pre-sex corrective surgery. Nevertheless, the larger ethical and legal questions that medical management of genital abnormality raises to some extent have not been adequately appreciated by contemporary Muslim responses. This article, therefore, in principle argues against surgical management of intersexuality during early infancy from the Islamic legal perspective.

*Keywords:* contemporary Islamic jurisprudence; intersex; juridico-ethical dilemma; medical management

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Human babies born with genital abnormality in the form of hermaphroditism have been a phenomenon among humans since the dawn of history. Various traditions have accommodated this class of humans within their own specific code of legislation and system of morality. In the case of Islam, the classical juristic theory of *khuntha* of both determinate (*wadih*) and indeterminate (*mushkil*) comprehensively spell out operational rules by which they could be identified and incorporated into the Muslim social fabric either as males and females or humans with ambiguous sexual configuration. Islamic law regards such an anomaly as a birth defect while

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medical science terms it as a disorder of sex development (DSD) popularly known as intersex condition.

Advances in the field of medicine since the mid-nineties have facilitated the speedy diagnosis of the sex identity of babies with intersex condition and the correction of their sex organ abnormality via surgical and subsequent psycho-hormonal treatment from infancy. This technological breakthrough is celebrated as the most unprecedented cure for overcoming the age-old problem of intersex babies to ensure the quality of their future life and bring comfort to their parents (al-Jurayyan 2011, 4). Joining the conversation, religious seminaries and juristic agencies responsible for issuing religious edicts (*fatwas*) on novel issues have also been quick to approve it but with the caveat that it should be “carried out by a trustworthy physician and the outcome would be certain” (Dessouky 2001, 512; *Fatwa Dar al-Ifta* 1989, 89). Similarly the Muslim medical profession has hailed it as a wonderful technology for overcoming an ancient juristic puzzle with which classical Muslim jurists used to grapple in vain. Its Islamic premium lies in the fact that it reinforces the Islamic norm of binary sex configuration of humans as intended by God (see Quran, 42:49; 53:45; 49:13; 75:39; 4:1). Therefore, it improves quality of life and safeguards the family’s well-being in the face of the social stigma and the liabilities which come with the birth of a child with intersex condition, that is, is in line with the higher purposes of Islamic law (*Maqasid Shari’ah*) (Mohamed and Noor 2015a; 2015b). Practically, it has become a standard procedure in some Muslim states such as Saudi Arabia, Egypt, and Malaysia to subject a child with intersex condition to sex corrective surgery as early as three months of age. This is followed by hormonal therapy until he/she reaches puberty (Musili 2010, paragraph 4; Dessouky 2001, 494; al-Jurayyan 2011, 6).

In view of the above, in terms of an end-goal this medical progress indubitably serves a noble purpose, but in terms of procedure and real achievement, to Western critics it raises a number of ethical questions which the medical profession either tries to downplay or discount. Various ethical arguments are made against this so-called “genital normalizing clinical intervention” in terms of documented inaccuracy of diagnoses and proven failure, and the consequent harms which that inflicts on the quality of life of the patients. However, the Islamic debate about such issues is still in the making. This article therefore aims to engage with the same discourse, mainly from the juridico-ethical standpoint in Islam. To this end, in the pages that follow we present the classical theory of hermaphroditism in Islamic law, followed by an outline of the scientific conception of intersex and its problems in terms of Western ethics, and lastly the position of Islamic law and its criticism.

### JURISTIC THEORY OF HERMAPHRODISM

In Islamic jurisprudence, a hermaphrodite is called *khuntha*. In principle, *khuntha* refers to a person of intermediate sex who normally either has the external reproductive organs of both male and female or an opening passage instead (al-Qarari 2008, paragraph 1; Ibn Qudamah 1985, 108; al-Lahim 1986, 153; Abd Allah 2010, 637).

Since the normative standard of human classification in terms of sex in Islam only grants space for a binary system of male and female genders, jurists connect a person with both male and female genitals to either male or female gender based on the potency/functionality of one of his/her two organs, that is, if it urinates from the penis it is regarded as a male, but if otherwise it is classified as a female. It is of paramount importance in Islam: the person as a matter of social norm must be classified as either of the genders. This is because of the gendered structure of Islamic rules of conduct which call for segregated or differentiated application of some laws regarding individuals. For example, one instance is the different portion of inheritance which a son and a daughter would receive from the estate of his/her deceased father. It was in response to this legal question that the Prophet inaugurated the foundation for discourse on the problem of intersex in his answer to the query made by an interlocutor. He was asked how a hermaphrodite, born with both male and female genitals, will inherit? The Prophet's answer was that it would inherit as a man if it urinates from the penis and as a female if it urinates from the vagina (al-Bayhaqi 1987, 498; al-Sarakhsi 1986, 612). In the absence of such physical signs, he/she is classified as *khuntha mushkil* (ambiguous/indeterminate hermaphrodite). These and other questions of gender-specific import, such as how such a person would pray, whether to marry or not, once dead who is to bathe its corpse and so on, with which Muslim jurists were confronted and were impelled to formulate constitute what I term the juristic theory of hermaphrodisism in Islam.

The preceding statement of the Prophet in designating the urinating organ whether penis or vagina (the functioning genitalia), as the main determining factor for differentiating between male and female infant hermaphrodites became the yardstick from which the juristic theory of diagnosing the sex of *khuntha* evolved. For instance, Abu Hanifah holds that a *khuntha* is a male if it urinates from his penis but a female if from her vagina. But if he/she urinates from both, his/her sex is determined on the basis of which of the two organs exits the urine first. If both excrete simultaneously, Abu Hanifah refrained from commenting, but his disciples, Abu Yusuf and al-Shaibani, held that from whichever of them he/she urinates more, would determine his/her sex (al-Sarakhsi 1986, 613).

If the predominance of maleness and femaleness in hermaphrodites cannot be determined during infancy as such, the Hanafi jurists postponed their judgment until the infant reached puberty. For instance, al-Kasani held that if a hermaphrodite, upon reaching puberty, grows a beard and is able to penetrate women, he is a male, but if he/she is going to have large breasts, menstruates, and conceives, and can be penetrated through her vagina, she is a female. But if the hermaphrodite exhibits neither of such masculine or feminine traits, it would be declared as *khuntha mushkil* (al-Kasani, 1987, 23).

Hanabilah also concurred with Hanafiyyah's criteria of urinating organ and quantity of the urine produced by any of the organs for distinguishing indeterminate hermaphrodites from determinate hermaphrodites during infancy. But they looked for the secretion of semen, menses, and growth of beard and breasts as indicators for determining the sex for adult hermaphrodites. Ibn Qudamah, however, opined that hermaphroditism subsumes other complex cases of indeterminate sex which up to his time were unknown to the community of jurists. For instance, a baby may be born with no genitals but with an opening from which its urine continuously oozes, or it may have a single opening passage from which it excretes both feces and urine, or it may totally lack genital openings whereby it vomits what it eats (Ibn Qudamah 1985, 652).

Imam Malik held that a hermaphrodite is primarily a male but God has created him with extra genitalia. Nevertheless, the majority of Malikiyyah agreed with Hanafiyyah's criteria for determining the sex of an infant hermaphrodite. Similarly, they held the growth of breasts and production of menses as indicators of femaleness of a pubescent hermaphrodite, but the occurrence of nocturnal dreams as an indication of maleness. Nevertheless, if a hermaphrodite exhibits either both masculine and feminine characteristics, or none of them, it would belong to the category of indeterminate hermaphrodite (al-Qarafi 1998, 24).

Subscribing to the same view in the case of an infant hermaphrodite, Shafi'iyyah added more criteria. If he/she urinates from both genitalia, we should see from which of them he/she starts first and then from which he/she stops first, and then which of the two drops more urine. If the starting and ending of urination are simultaneous, then the standard is the amount of the urine which any of the organs excrete (al-Nawawi 1991, 181). In the case of pubescent hermaphrodites, Shafi'iyyah refuted the growth of beard and breasts as early indicators of sex configuration but underlined a number of other signs, including:

- (1) Secretion of semen. If he/she secretes semen from both genitalia, then it has to be examined whether it is sperm or ovum. However,

if he/she secretes sperm from one and ovum from another organ, then no sex can be assigned to him/her; and

- (2) Menstruation. If she/he urinates from the penis and menstruates from the vagina, this is complicated as it can be male or female (indeterminate) (al-Nawawi 1991, 181).

#### AN OVERVIEW OF INTERSEXUALITY IN SCIENCE

Intersex broadly encompasses numerous types of sexual anomaly from which an individual may suffer. Beyond the complex mixture of internal sexual anomaly, an intersex more often includes those born with ambiguous genitalia. For instance, a baby boy with an abnormal penis may have ovaries instead of testes, or a baby girl with abnormally large clitoris resembling a penis may not have proper internal sexual organs (Ehrenreich and Barr 2005, 97). The scientific reason as to why this happens is that “it arises when genetic and/or hormonal patterns cause an embryo to exhibit a pattern of sexual differentiation that combines elements of both male and female developmental pathways” (Ehrenreich and Barr 2005, 98). This is referred to as an altered biochemical pathway which causes an intersex condition.

The most common types of intersex are:

- (1) Children born with abnormal female genitalia but with no internal sex organs like uterus or fallopian tubes due to a condition known as androgen insensitivity syndrome (AIS). They are chromosomally male individuals (XY) but are “completely or partially unable to process the androgens made by their own testes.” If they are complete AIS (CAIS), they will be born with somewhat female genitalia but their testes still prevent them from having a uterus and fallopian tubes. But if they are born with partial AIS (PAIS), they “will have masculinized female external genitalia (e.g., clitorimegaly, or enlarged clitoris) to mildly under-masculinized male external genitalia (e.g., micropenis). They are considered as girls at birth due the shape of their genitalia but at puberty they fail to menstruate” (Ehrenreich and Barr 2005, 100; see also Mohamed and Noor 2015a; Mohamed and Noor 2015b). To Woodhouse, AIS intersex are also called true hermaphrodites, because the first type has one testes and one ovary, 60% having vagina with rudimentary uterus but with one descended gonad, 90% some kind of vagina but no uterus. But raising them as girls can be successful. The second type has some short potent penis or rudimentary penis incapable of sexual intercourse (due to a condition known as cloacal extrophy). Raising them as girls has yielded paradoxical outcomes; that is, feminine gender identity but masculine role play.

Rearing them as males has proven more problematic, because they exhibit psychological problems and are often prone to criminality (Woodhouse 2004, 61).

- (2) Children born with abnormal external female genitalia but no internal female sex organs like a uterus or fallopian tubes due to a condition called 5-alpha-reductase deficiency (5-ARD) and described as male pseudo hermaphrodites (Fausto-Sterling 1993, paragraph 2). They also have male (XY) chromosomes and intact testes, but are unable to convert testosterone into dihydrotestosterone in order to develop male genitalia. They are treated as females at birth due to the appearance of their genitalia, but at puberty they start to masculinize (Ehrenreich and Barr 2005, 97).
- (3) Children born with external masculine genitalia but internally having normal uterus and ovaries due to a condition known as congenital adrenal hyperplasia (CAH) and described as female pseudo hermaphrodites (Fausto-Sterling 1993, paragraph 2). They are chromosomally females (XX), but because the adrenal gland produces large amounts of androgenic hormones they develop ambiguous male genitalia. However, at puberty “they often exhibit irregular menstrual periods and more body hair than typical for girls of their ethnic and family background” ((Ehrenreich and Barr 2005, 101; see also Woodhouse 2004, 58; Mohamed and Noor 2015a; Mohamed and Noor 2015b).
- (4) Children with micropenis or undescended testes due to a condition called Klinefelter syndrome (KS) have two or more X chromosomes and a Y chromosome. Accordingly, at puberty they grow sparse facial hairs and breasts. Hormonal therapy may help their masculine pubertal development (Ehrenreich and Barr 2005, 101).

Among the above intersex conditions, to Fausto-Sterling (1993) both AIS and CAH subsume varying sex-structure compositions (diverse anatomy) whereby raising them as either boys or girls will be an uphill task. She states, “for instance, in some true hermaphrodites (AIS) the testis and the ovary grow separately but bilaterally; in others they grow together within the same organ, forming an ovo-testis. Not infrequently, at least one of the gonads functions quite well, produces sperm cells or eggs, as well as functional levels of the sex hormone androgens or estrogens. Although in theory it might be possible for a true hermaphrodite to become either father or mother to a child, in practice the appropriate ducts and tubes are not configured so that egg and sperm can meet” (Fausto-Sterling 1993, paragraph 2). A further complication is that the appearance of their genitalia can be deceptive. Despite a larger number of true hermaphrodites, 55%, having relatively male genitalia, they may also have a urethra running

either through or near the phallus, which looks more like a penis than a clitoris and excretes menstrual blood periodically during urination. They also develop breasts at puberty. To Fausto-Sterling (1993), "Some may even develop more feminine sexual anatomy as they develop separate openings for the vagina and the urethra, a cleft vulva (vaginal lips), and at puberty they develop breasts and usually begin to menstruate but their oversized and sexually alert clitoris may sometimes at puberty grow into a penis (if not surgically removed) but they urinate through urethra (opened near the vagina)" (paragraph 4).

Stressing the same puzzle, Dessouky also submits that "true hermaphroditism is the least common and least understood variant of intersex disorders. For instance, it is found that out of 528 cases reported in the literature since 1899, only 114 have provided sufficient information correlating the appearance of the external genitalia, at the age of diagnosis, karyotype, findings at laparotomy and sex of rearing" (Dessouky 2001, 510).

Pseudo-hermaphrodites are also complex. Male pseudo-hermaphrodites have "testes and XY chromosomes, yet they also have a vagina and a clitoris, and at puberty they often develop breasts but do not menstruate." Female pseudo-hermaphrodites, on the other hand, "have ovaries, two XX chromosomes and sometimes a uterus, but they also have at least partly masculine external genitalia. Without medical intervention they can develop beards, deep voices, and adult-size penises" (Fausto-Sterling 1993, paragraph 2). Underlining this uncertainty in neatly configuring the diverse categories of intersex, Fausto-Sterling concludes that "sex is a vast, infinitely malleable continuum that defies the constraints of even five categories which Woodhouse has outlined" (Fausto-Sterling 1993, paragraph 8; see also Woodhouse 2004, 61).

Nevertheless, the mystery surrounding sex configuration has not hampered the medical profession from surgically managing persons with intersex conditions. They believe that advances in molecular biology and surgical techniques have made it possible not only to normalize children with abnormal genitalia but also to prevent it prenatally (Fausto-Sterling 1993, paragraph 2; Ehrenreich and Barr 2005, 101). As to how common such anomalies are, the medical fraternity endeavors to downplay its occurrence, but the Intersex Society of North America (ISNA) maintains that "at least one or two of every 1,000 births in the United States leads to surgical alteration of the genitalia" (Ehrenreich and Barr 2005, 101).

#### GENITAL NORMALIZING SURGERY

Surgical correction of genital abnormality for such children began in the 1950s and the rationale for its use was conceived by John Money. He, among others, hypothesized that the psychosexual health of an individual

squarely depends on how his genitalia seem to appear (known as nurture-based theory). Hence, a person's abnormal genitalia pose serious threat to the psychosexual well-being of an infant. For Money, this became a case for viewing intervention as a medical emergency, and thus he laid the foundation for the justification of "genital normalizing surgeries" which is upheld until the present day (Ehrenreich and Barr 2005, 99; see also Mohamed and Nurani 2015, 138). Money predicted that this would work in the case of a male infant whose penis was burned, and hence, based on his recommendation, "the boy's penis was removed and a vagina was sculpted out of his scrotum in its place. The boy's parents were advised to raise him as a girl, but from early age he never identified as a girl and used to live as a man" (Ehrenreich and Barr 2005, 103). The explanation for the falsity of Money's protocol, I believe, may be genetic—that is, the reason that boy did not accept his assigned sex was because he was genetically, hormonally, and psychologically a male. Nevertheless, ever since, the proposition that aligning genetic sex with external genitalia via surgery, if begun before the age of two and one-half years and followed by hormonal therapy and socialization, would cure the condition of intersexuality has become an unequivocal standard for genital normalization of the intersex. The procedure involves: (1) diagnosis of the probable "real" sex of the baby between three and six months; (2) consulting with parents about their desired outcomes to secure their consent; (3) starting the surgical correction cycle, which may be repeated for proper reconstruction of the new genitalia with continued hormonal therapy until puberty; and (4) advising to the parent to socialize the child according to the assigned sex (for details see Ehrenreich and Barr 2005, 103–104).

#### EFFICACY OF THE SURGERY

Despite widespread use of clinical management of intersex, its outcome has proven paradoxical. While in some instances, the "real sex" of the infant has been correctly diagnosed, in others the cases of misdiagnoses are documented upon reaching adulthood. To complicate the issue, the inefficacy of the new genitals and the working of the newly reconstructed reproductive system to enable the affected individual to have quality sexual health has also been cause for concern. Accordingly, the adequacy of the surgical approach to intersex phenomenon is a matter of controversy among the experts.

Most importantly, critics believe that since the decision about the "real sex" of the intersex is normally made on the basis of the appearance of the patient's genitals and not on chromosomal make-up, this has led some to doubt its result. For instance Ehrenreich and Barr maintain that sex prediction of some categories of intersex, like those with the AIS and 5-ARD conditions, is complex, because their "proper diagnosis is usually



not made until they reach puberty and fail to menstruate” (Ehrenreich and Barr 2005, 100). Concurring with Ehrenreich and Barr, Woodhouse observes:

It is a mistake to amputate sexually sensitive organs without a definite medical reason. Furthermore, it is naïve to think that female sexuality is so simple that inadequate male genitalia can be ‘cured’ by gender reassignment; there is no evidence to show that the outcome of this policy is satisfactory. Indeed, evidence is emerging to suggest that the outcome is poor; many individuals with ambiguous genitalia would prefer to keep that which they have, rather than have parts reconstructed to produce a copy of a specific gender. (Woodhouse 2004, 62)

Underlining the same, Dessouky contends that, although theoretically a baby with ambiguous genitalia may consequently achieve the utilitarian goals of sexuality such as sexual intercourse and reproduction after corrective surgery (a medial protocol set by Money), he/she cannot become a normal man or woman. The reasons are as follows: first, in the case of medically turning a hermaphrodite into a boy, the endocrine correction will only cause the penis to grow until puberty; second, testosterone treatment after surgery, though effective in the case of laboratory rats, has shown poor results in the case of the teenage boys; third, surgical enlargement of the penis does not guarantee its erectile function except in the case of those born already with potent small penises (Dessouky 2001, 511).

#### ETHICALITY DEBATE FROM OTHER DISCIPLINES

Unlike the utilitarian view adopted by some physicians, ethical objections pertaining to surgical management of the intersex condition from other disciplines have been mounting since 1990s (Mohamed and Nurani 2015, 137). Some of the salient ethical concerns surrounding surgical management of intersex are as follows:

- (1) It inflicts both physical and physiological harm on the intersex person. It starts from three to six months of the infant’s life and continues until puberty. The procedure does not fix the condition at one time, but has to be repeated on average up to five times with its associated risks. Similarly, vaginoplasty has a high rate of failure, particularly when it is done during infancy (it causes a narrowing of the vaginal entrance). This result led Lattimer’s group to conclude in 1976 that the results of vaginoplasty were so poor that the operation should not be done before puberty (Woodhouse 2004, 58). Perhaps most importantly, in addition to resulting in poor sex quality, the operation deprives the child of the gonad which is responsible for the production of hormones essential for maintaining bone density (Ehrenreich and Barr 2005, 105–107).

- (2) Psychologically, the children (grown by the time of continued follow-up treatment) are subjected to shame, stigma, and anguish in view of compelling them to appear naked or semi-naked for multiple courses of genital reconstruction. One patient complained that this experience felt as if he had been made into a “lab rat tested, photographed, tested again, and photographed some more” (Ehrenreich and Barr 2005, 108). They also suffer depression on account of being treated differently by both the medical profession and their parents.
- (3) Surgery in the form of “clitoral reduction and recession preserve” impairs their sexual sensation and enjoyment in spite of what the physicians claim (Ehrenreich and Barr 2005, 108).
- (4) In terms of efficacy, sex normalization surgery will not make an intersex a “real” man or woman, because multiple surgeries to reconstruct a penis make it terribly scarred and immobile (Ehrenreich and Barr 2005, 105). To Woodhouse, this in principle is problematic because “a penis made from a forearm flap does not have physiological sexual function of the natural one, likewise the medical establishment may be less aware that a vagina made from intestine is also sexually inert” (Woodhouse 2004, 57). Woodhouse made the stunning revelation that

CAH women grew up as ‘tomboys’ and had little interest in role rehearsal for marriage and motherhood. However, when compared to their sisters or female cousins, it becomes clear that women with CAH are less feminine and less secure in their female role. In growing up, CAH girls show less inclination to play as, or to form friendships with, other girls, sometimes to the extent of cross-dressing. As adults, although having similar marriage rates, they have fewer experiences of ‘true love’, up to 20% at least fantasise about homosexual relationships and they have intercourse less often. Up to 13% have gender identity disorder and occasional individuals change to male gender role. The effects are most marked in those with the salt-losing form of CAH. (Woodhouse 2004, 59)

- (5) Wrong sex assignment is another problem, on account of medical expediency or social patriarchy. Noting this, Mohamed and Noor record that “the medical mismanagement will affect the life of such infants as generally they are assigned female genitalia than male on the hypothesis that intersex babies are more often born with potentially female gonads and the practical ease of surgical reconstruction of female genitalia as compared with males” (Mohamed and Noor 2015a; Mohamed and Noor 2015b). One may add that the reverse is also true; that is, assigning male sex to an intersex because males as opposed to females are more important in terms of social integration and human capital in most of Muslim cultures, including Saudi

Arabia, Egypt, and others. For instance, al-Jurayyan, in a pediatric endocrine clinic in Riyadh, Saudi Arabia, reveals that “out of the 25 XX congenital adrenal hyperplasia patients originally assigned male due to extreme virilization, four (16%) refused reassignment to the female gender. In contrast, all of the 46 XY patients reared female accepted physician recommendations to be reassigned as males” (quoted in Shoshana Tell 2014, 7). This is the reality, in spite of the guidelines set by the Saudi State banning such selective use of this facility, al-Jurayyan lamented (Shoshana Tell 2014, 8). Testifying to the same tension between official position and reality, Dr. Yasser Jamal, a Saudi surgeon who has performed over 200 operations on intersex patients, explains that patients normally experience a smooth transition from female to male. In contrast, men often find it difficult to be reassigned as female, as “the restrictions of being female in Saudi Arabia [are] difficult to cope with” (Shoshana Tell 2014, 8). Likewise, a 2012 report from Cairo, Egypt found that economic motives drive a large percentage of families to choose the male gender. Specifically, 60.35% of intersex patients are reared as male, because “in Egyptian society, female infertility precludes marriage, which also affects employment prospects” (Shawky and Nour El-Din, quoted in Shoshana Tell 2014, 8).

- (6) Since surgery is done during infancy for both medical and socio-cultural reasons (clinical reasons and an attempt to avoid parental confusion and distress), it does not prevent the reemergence of the infant’s “real” sex against its assigned sex for reasons of socialization. Woodhouse affirms: “There are examples of patients making more than one change. One child appeared to develop as a male, lived as a female from 4 years old until puberty and then changed back to the male gender” (Woodhouse 2004, 57).
- (7) In view of both the immense physical and psychological pain inflicted on the infant, Milton Diamond, a professor at the John A. Burns School of Medicine at the University of Hawaii, considers surgical correction of genital abnormality as amounting to flagrant violation of a child’s rights as he/she is incapable of giving informed consent to the surgery. Thus, it is in fact subjecting the infant to castration, an act for which parents have no right to consent to on their infant’s behalf (Diamond, 2007, Paragraph 3).
- (8) Finally, Fausto-Sterling (1993) questions the underlying philosophy behind surgical management of intersex—namely, “clinically regarding it a psycho-medical emergency case for intervention”—as sham and unfounded. First, how real is the perceived debilitating psychological pain experienced by the intersex which its medical management purportedly remedies? If that is true, then how

many of the pre-bio-power hermaphrodites have later committed suicide? Secondly, if a society does not subscribe to the idea of a binary sexual system (tolerates multi sexuality), is it necessary to excise the clitoris of a “female hermaphrodite which is large enough to penetrate the vagina of another woman?” (Fausto-Sterling 1993, Paragraph 12).

In view of the above, the question is: How do we overcome such ethical dilemmas? Western ethicists suggest two solutions. First, delay medical intervention: for instance, Shoshana Tell argues that it is better to postpone the surgery until the infant is old enough to be part of the decision making because it involves his/ her bodily integrity, unless the best interest of the child dictates otherwise. For instance, early intervention is better than delaying in the case of “XX CAH patients with extreme external virilization—for example, typical male-appearing genitalia as opposed to mild clitoromegaly” (Shoshana Tell 2014, 10). Others more forcefully argue for postponement of the treatment because of some startling cases of failure. For instance, it is argued that the recent South Carolina case of M.C., who was born with both male and female genitalia, casts serious doubt on the whole sex-altering surgery during this intersex’s infancy. M.C.’s male genitalia were removed at the age of one and the adopted parents were advised to raise her as a girl. But according to her adopted parents, M.C. since then has never identified herself as a girl but as a boy, now eight years old (see Anonymous 2013, Paragraph 3). This is what the official stance in Papua New Guinea and intersex pressure groups such the Intersex Society of North America advocate (Woodhouse 2004, 63). Second, give legal recognition to the “third sex” upon birth and let him/her decide once the age of discretion is reached. For instance, in November 2013, Germany sanctioned the recognition of the third gender in its birth certificates (Nandi, 2013, Paragraph 4).

However, many physicians vehemently oppose delaying sex normalizing surgery. Their argument is twofold: clinical and psychosocial. Clinically, the intersex condition of the infant needs urgent intervention, they argue, for the following reasons. First, for example, In CAH cases, the “salt-losing” phenomenon and the probability of gonads prone to malignant tumors would necessitate early surgery to establish the babies’ optimal sex. In a similar manner, early surgery is also vital for cases of AIS in newborns (Mohamed and Noor 2015a; Mohamed and Noor 2015b). Second, if gonads are not removed during early diagnoses and left until puberty, adverse effects on the neurons may expose the person to the risk of developing gonadoblastoma (al-Jurayyan 2011, 6).

It is also argued that that early intervention is justified for two psychosocial reasons: first, to avoid consequent psychological trauma on an intersex child of 6 years or older; second, to circumvent parental refusal

for fear of social stigma if the assigned sex is the opposite of the rearing sex of the intersex, especially from male to female (Dessouky 2001, 510). The American Academy of Pediatrics recommends the repair of external genitalia and hypospadias before the age of 30 months for the following reasons: (1) awareness of the different sexes as well as the presence of a physical deformity occur about that time, (2) socialization of boys of that age creates situations in which comparison of genitalia occurs (e.g., in nursery schools); and (3) from the age of 30 months to at least 5.5 years, boys' fears of physical harm are significant and may be exacerbated by surgery. It is also stated that a child who has attained the capacity for operational thought (7 years of age or older) will be able to understand the causality in a more adult-like fashion but "still may unconsciously associate surgery with punishment" (Dessouky 2001, 510).

In the final analysis, the supporters of intersex management as such contend that the principal objections of misdiagnosis during infancy and consequent medical mismanagement could be overcome if

a multidisciplinary team consisting of a pediatric endocrinologist, pediatric surgeon, urologist, plastic surgeon, geneticist, and a psychologist or pediatric psychiatrist should collaborate in managing such a condition. The trauma associated with gender assignment is less when the sex-of-rearing is determined by an expert as soon as possible after birth as opposed to the experience of a gender re-assignment later in life. (al-Jurayya 2011 p. 6)

It is observed, however, that though these clinical and psychosocial arguments presented by the advocates of surgical correction of intersex conditions during infancy to a certain extent answer the ethical concerns about its *modus operandi* and end result, they do not adequately dispose of other serious ethical issues which we highlighted in this study. But the good news for cultures subscribing to polytheistic cosmology of ethics is that they can press for mandatory legal recognition of the "third sex" immediately after birth since they believe in the existence of people with multisexual orientation. For instance, it is argued that a hermaphrodite brought up as a female but with both a penis-size clitoris and a vagina should be allowed to marry and maintain sexual liaison with women, referred to by urologists as "practicing hermaphrodites." The French historian Michel Foucault is opposed to the manipulation of human sexuality as a matter of principle. He has called it bio-power, namely how "the knowledge developed in biochemistry, embryology, endocrinology, psychology and surgery has enabled physicians to control the very sex of the human body" (Fausto-Sterling 1993, paragraph 12).

However, to allow for sexual liaison on the basis of multisexual orientations may be problematic in the case of ethical cultures with a monotheistic outlook which tolerates sexual intercourse only between "real men" and "real women."

## THE POSITION IN CONTEMPORARY ISLAMIC LAW

Contemporary Muslim jurists, by and large, both at the individual and institutional levels, have welcomed medical management of human genital abnormality for utilitarian reasons: first, “it detects some birth defects at an earlier stage which jurists of bygone days had no means to diagnose, such as urogenital sinus, one hole for both urine (urine dripping piece of flesh instead of proper genitals) and feces, or locale (one hole for both urine and feces) as raised by Ibn Qudamah. Secondly, it is able to rectify the physical abnormality of external sexual organs via surgery and follow-up hormonal therapy of the indeterminate sex to remove his/her sexual ambiguity” (al-Bar 2007, 354; see also al-Faradi 2010, paragraph 6).

Celebrating this development, al-Bar maintains that, with the progress of modern technology in medicine, the problem of the *khuntha mushkil* would soon be solved because medical criteria for sex determination go beyond the physiological function of genitalia by looking instead into the composition of sex chromosomes, sex gonad, supernal gland, womb and fallopian tube, testosterone, and so forth. That is why, according to al-Bar and al-Khaqani, today’s medical doctors are better equipped to distinguish between a “real female hermaphrodite” with the appearance of a man (female pseudo hermaphrodite) and a “real male hermaphrodite” with the external signs of a woman (male pseudo hermaphrodite) (al-Bar 2007, 354; al-Khaqani 2006, paragraph 2; al-Amin n.d., paragraph 4). Then it is for the jurists to regulate their socio legal undertaking.

To regulate ethical handling of corrective surgery as such, various *fatwa* bodies in the Muslim world, such as the Fiqh Academy in Mecca and the Saudi-based Permanent Scientific Research, first and foremost have regarded it as legitimate. Second, they held that for it to be valid the overriding principle is that the parents should be assured that such surgery is capable of determining the “true sex” of the intersex baby (Mohamed and Noor 2015a; Mohamed and Noor 2015b; see also Jibr 2011, paragraph 3; Musili 2010, paragraph 2). The Islamic argument for its legitimacy consists of the following Prophetic statements: (1) “God has not created ailments except that He has anticipated by His will a cure for it” (Ibn Majah 1987, 252); (2) “O Servants of God seek medical treatment for your ailments” (Ibn Majah 1987, 252); and (3) “Harm shall neither be inflicted nor reciprocated” (Ibn Majah 1987, 252). Moreover, it is argued that Islamic *ratio legis* of genital normalizing surgery safeguards human life and the well-being of the family (human *maslahah*/interest)—that is, the five higher purposes of the Shari‘ah, namely protection of religion (gender segregation important for worshipping God), life, intellect, property (share of inheritance varies based on gender), and progeny; for instance, CAH condition left “untreated can lead to salt loss, shock and impending death.”

Nevertheless, care should be taken against wrong sex assignment, which would cause gender dysphoria, which is not allowed in Islam (Mohamed and Nurani 2015, 141; see also Mohamed and Noor 2015a; Mohamed and Noor 2015b).

In practice, since 2006 the Center for Sex Corrective Surgery in Malik Abdul Aziz Hospital has offered this type of surgery, with treatments numbering 40–50 cases annually. Treatment is begun when the baby is three months old and monitoring continues via hormonal therapy till the patient reaches the age of marriage. The operation itself and its post-treatment check-ups take four years to complete (Musili 2010, paragraph 4).

Extending this religious edict, some legal thinkers like Bushiah (2008) even allow treatment in the case of adult intersex; for instance, when such a person has no ulterior motive for hiding his/her real sexual identity but wishes to recover it via surgery (471).

As to what should be the rules, guidelines, and parameters (*dawabit*) applied in order to perform such surgeries, government-affiliated religious agencies in Malaysia offer some detail. For instance, the Fatwa Committee of the National Council for Islamic Affairs (1989) holds that an individual that is born as a true hermaphrodite, and has both genitals (or gonads) is allowed to undergo surgery in order to maintain one genital (or gonad) depending on which is the better functioning (Mohamed and Noor 2015a; Mohamed and Noor 2015b). JAKIM, the body responsible for overseeing the implementation of *fatwa* in the country, in consultation with the Ministry of Health identified three categories of intersex for the legitimacy of surgery, namely those with AIS and CAH conditions plus those with predominant psychosexual feelings (Mohamed and Noor 2015a; Mohamed and Noor 2015b). In detailing this *fatwa*, in 2014, JAKIM has stipulated that

- (1) an infant with CAH condition can safely be assigned female sex when the surgery is combined with hormonal treatment;
- (2) infants with AIS condition, however, could not be assigned male sex via hormonal treatment or surgery with ease. Nevertheless, if an individual later still wishes to undergo the surgery, it is allowed provided that the procedure is not psychologically or medically harmful; and
- (3) when embarking on sex assignment surgery on an infant with intersex conditions of AIS and CAH, parental consent must be obtained (Mohamed and Noor 2015a; Mohamed and Noor 2015b).

Further explicating Islamic guidelines, al-Jurayyan (2011) delineates more detailed rules on medical managing of various genotypes but cautions that Muslim physicians should not be swayed by their bias and that of

Muslim parents towards male gender when deciding to fix their babies' sex. For instance, not all babies with 46 XY chromosomes should be assigned male sex solely on account of parental pressure. The reason is that only some could be successfully assigned a male sex: first, if such infants demonstrate an appreciable response to exogenous stimulation, with subsequent testosterone treatment of short duration they might indicate certain degree of masculinization upon reaching puberty; second, those with 5- $\alpha$ -reductase deficiency (5-ARD) will see further virilization at puberty, along with the development of a male habitus. To al-Jurayyan, "Many of these individuals will be fertile as adults; therefore, male gender is the appropriate choice for gender assignment, and surgical reconstruction should be performed at 18 months" (al-Jurayyan 2011, 10).

An intersex with 46,XX karyotype, on the other hand, could be safely assigned a female sex not because of its perfect internal sex organs but due to the ease of sex construction and the high possibility of fertility at puberty. Likewise, babies with ovotesticular condition (46,XX/46,XY or 46,XX/46,XY karyotypes), pure gonadal dysgenesis (46,XX or 46,XY karyotypes), or mixed gonadal dysgenesis (45,X/45,XY), could be assigned female sex but with the proviso that "all of their testicular tissue must be removed at the time of diagnosis because of the risk of virilization at puberty and the higher incidence of gonadal tumors" (al-Jurayyan 2011, 7).

#### THE JURIDICO-ETHICAL DILEMMA

The current Islamic response to move with technological developments, on a positive note, is cogent proof of Islam's ability to accommodate science and benefit from it if it improves the quality of human life and changes it for the better. Accordingly, the legitimacy of surgical management of genital abnormality *per se* or more complex intersex conditions indisputably, at micro level, can be supported by textual proofs from the sources of Islamic law, such as Prophetic tradition on medical treatment and argument from end-goals of Islamic law in terms of ameliorating life and family integrity.

Nevertheless, given the nature of such surgery, resorting to it in spite of its paradoxical outcomes, if properly probed points to some far-reaching juridico-ethical questions upon which both contemporary juristic pronouncements and their Muslim physician counterparts have not sufficiently reflected. To be precise, a Muslim response, to the best of my knowledge, needs to consider some important technical questions in terms of law and ethics about surgical managing of sex indeterminacy including the following:

- (1) Which intersex conditions can be treated with precise prediction from early infancy and which need to be postponed? It seems



that, although our jurists place their faith on physicians, the phenomenon of intersexuality is too complex to be squarely determined by a medical approach, as we have highlighted in this study. We agree that seeking assistance from medical experts is helpful but not sufficient, because *mufitis* are required to be acquainted with the subject matter about which they issue decrees (called *taḥqīq al-manat* in Islamic legal theory). Taking this issue with jurists, Dessouky (2001) urges them to go beyond genital appearance as the sole factor for decreeing assigned sex: cosmetic appearance is not an adequate indication of a child's real sex. According to Dessouky, jurists need to be familiar with other layers of sexuality such as "the chromosomal sex, the gonadal sex, the phenotype, the appearance and function capability of the external genitalia." They also need to be thorough when it comes to legalizing the "excision of the gonads or the uterus in cases of females with PAIS and misassigned male with CAH especially if they are diagnosed in old age" (2001, 513). For instance, the juristic body JAKIM lacked sophistication when it opined that intersex with CAH condition can safely be turned into males, paying no attention to empirical studies that point to paradoxical outcomes, as we noted before.

- (2) Is the procedure legitimate? As we noted, to date there is no consensus among experts about the classification of "genital normalizing surgery" as a case of "medical emergency." Thus, a question needing further probing is: Is it justified in Islamic law to resort to the surgery in the first place? Therefore, Islamic law must address itself to numerous jurisprudential and ethical issues, such as the legitimacy of cutting and reconstruction of human sex organs, amputation of other body parts and their transplantation to reconstruct human genitals, and repeating the same protocol in the process of reconstructing an almost functioning new sex organ (external and internal) on top of hormonal therapy. One may observe that all these procedures, if not *daruri* (essential and necessary; *without which a person cannot exist*), will be unlawful. They involve mutilation of inviolable human body parts (*muthlah* of the protected human soul), an act prohibited by the *sunnah* (Prophetic tradition), ravaging of another's private part (*'awrah and farj*) which is privileged as private in Islam, and doing it more than one time which causes torture and shame and leads to emotional scars (*darar adabi and jasadi*) (Humaish 2007, 170–175). Likewise, the documented traumatic psychological scars which early surgery and continuous hormonal therapy leaves upon the child are enormous, and hence simply cannot be condoned unless absolutely necessary. Therefore, complicity with such violence against an infant of three

months old is a kind of harm which Islamic prohibition excludes from the ambit of parental consent on their behalf. The reason is twofold: harm is certain but the cure is uncertain; that is, fixing sex abnormality once and for all via surgery from early infancy is not conclusive. Two Islamic legal maxims overrule such handling of one's child: namely, "harm must be avoided" and "certainty cannot be removed by doubt." The only exception is when such a violation is warranted by medical necessity (*darurah*), whereby the maxim, "necessity overrides prohibition (*al-darurat tubih al-mahdurat*)" will make it tolerable.

- (3) Are outcomes uncertain and paradoxical? As we noted in this study, the success rate of sexual assignment to fix intersexuality is documented to be mixed and subject to controversy. The implication in Islamic law is that the jurists will unconsciously become privy to the approval of corrective surgery even for transgenders, which they in principle vehemently oppose. The scenario arises in a situation where they may advise a layman that his newborn baby with masculine-like genitalia is a boy and it is thus permissible for him to seek genital corrective surgery. But later, upon puberty, the boy exhibits feminine traits and seeks its reversal. The reversal surgery is in fact sex assignment for a transsexual. The studies suggest that this will become a clinical reality in cases of CAH and 5-ARD conditions. Moreover, once the "real sex" of the intersex emerges at puberty, Muslim culture, which prefers male over female as a sociological variable, becomes another avenue for sex reassignment surgery on account of manmade conditions of transsexualism.

In view of the above, we suggest that Islamic jurists and legal counsel (*mufitis*) go beyond the utilitarian doctrine of protection of life and family integrity (*maslahah*) as the prime ethical framework for according blanket legitimacy to clinical sex management of intersexuality. The reason is threefold: (1) the precise diagnosis of the probable "true sex" of the intersex baby is not guaranteed in all cases; (2) the agony and suffering borne during surgery and follow-up clinical intervention amount to a kind of harm to the child to which he/she is unable to consent; and (3) ethical questions of manipulating human genitalia cannot be unequivocally lawful if the outcome is not certain.

Accordingly, any ethical deliberation on surgical management of intersex from a larger ethico-legal Islamic perspective should take into account the following:

- (1) Reflecting on the ethical merits of the classical juristic theory of managing hermaphroditism, parents should be advised to delay medical intervention *vis-à-vis* performing surgery on an infant. Because

medical intervention in infancy involves the risk of producing children with an adult sexual disorder condition, namely transgenderism, it could lead to less ability for the person to socially integrate in the Muslim culture than if he/she had remained a *khuntha mushkil*.

- (2) The option to resort to surgery during infancy, if extremely necessary and the likely future assigned sex of the child will be “real” (though in terms of sexual quality less satisfactory), should be determined on the basis of advice by a panel of experts from a variety of relevant disciplines as mentioned in this study.
- (3) People with sexual ambiguity, if they choose to accept their condition upon the age of discretion, similar to their predecessors, should be permitted to do so, so that from the point of view of Islamic law the chapter in books of *fiqh* on *khutha* will continue to be relevant. This is also justified by virtue of the Prophet’s edict when he ordered his interlocutor to observe the intersex (born with abnormal genitals of both male and female gender) and see from which one of his/her genitalia the intersex urinates. The Prophet did not order the excision of the non-functioning genitalia with the assistance of a barber.

#### CONCLUSION

In this study, unlike similar research, we noted with some detail that the juristic identification of the sex of an intersex who is pseudo-hermaphrodite is determined either on the basis of the organ from which the child urinated or the more potent of the two genitalia during infancy. If neither of these could be determined, then the child is regarded as a true hermaphrodite and his/her sex determination is deferred until puberty, when the exhibition of masculine and feminine sexual traits should make it easier to determine gender. Interestingly, however, unlike the absolutist claims of the modern defense of medical management of the intersex, pre-scientific jurists never claimed an easy fix for intersexuality. Modern scientific advances deny traditional criteria for sex determinacy as inadequate and claim scientific precision in diagnosis and sex assignment. For these scientists, sex determination depends on multiple factors including chromosomal composition and the hormonal and physiological function of the internal sex organs. To them, it is a medical condition which can be managed medically, in particular via sex normalization surgery. This process begins in early infancy, with continuous management until the child attains puberty. Nevertheless, in view of the complexity of intersex conditions, the harm resulting from reconstructive surgery, and instances of unsuccessful sex assignment, Western ethicists advocate either prenatal diagnosis and treatment or delaying treatment until the person can make his/her own choice. Islamic law, both

in theory and practice, also seems to advocate early intervention, but without a reflected delineation on its juridico-ethical implications from Islamic law and ethical perspectives.

This study, among others, has argued that, because medical management does not have the efficacy of fixing an intersex as either a perfect male or female, the ethical basis of classical juristic theory of hermaphroditism sex determinacy should be heeded when deliberating on a code of ethics for surgical management of the intersex. Otherwise, the zeal to hastily embrace medical technology will land those affected in more difficult, paradoxical situations and result in the inconsistencies which we highlighted in this article. The advice given by Milton Diamond to Western policy makers can also be persuasive for contemporary Muslim jurists. By drawing a parallel between genital abnormality and breast cancer symptoms, he opined, “You don’t go around routinely doing prophylactic breast removals. You wait until there is a sign of something happening. The same is with testes” (Diamond, 2007, paragraph 8). Accordingly, unless medical technology yields an overwhelming prediction about the true sex of the intersex person, the Islamic position should be one of cautious and selective application rather than a general policy and commercialized medical enterprise for normalization of genital abnormality.

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