

Postmortem sperm retrieval in context of developing countries of Indian subcontinent

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ABSTRACT

There was a request for postmortem sperm retrieval (PMSR) from the wife of a deceased, but we had to decline. We have no guideline in place for the procedure in such cases. When we explored the international scenario on the issue of PMSR, we found that most of the developed countries have their guidelines about it, whether to allow or not to. There is not guideline available in developing countries, as such, for the procedure and various medical, legal, and social issues related thereto. In this article, we have explored the status of postmortem retrieval and feasibility of the procedure in developing countries of Indian subcontinent.

KEY WORDS: Artificial insemination, assisted reproduction, consent, Cornell guidelines, legitimacy

INTRODUCTION

Recently, a male body was brought to our institute for medicolegal autopsy by police personnel. During history taking procedure, wife of the deceased politely requested for sperm retrieval. When the reason was enquired, she replied that she was his wife and wanted a child posthumously as they had no child. Parents of the deceased were also willing and supported her for "the cause." After 1 h of discussion among various consultants, it was decided that the request could not be accepted as the institute does not have any protocol in hand about sperm retrieval from a deceased person. Therefore, we denied her request, explaining her that currently no clear guideline is available with us on the issue.

This request was unusual for us, but when we searched for literature on postmortem sperm retrieval (PMSR), we found that Bardale and Dixit^[1] had predicted this scenario long ago. In the article published in the year 2006, they had pointed out that request for PMSR will soon arise in developing countries, and there should be discussion on it. In their article, they had discussed various ethical, legal, social, and medical implications of the process. They pointed out many important facets of it in context of India, such as, how to judge wish of the deceased by interviewing the wife and relatives, what will be the state

of legitimacy of the born child, will the conservative society accept the child, will the child be at a disadvantage of not having a father, will the child have the right to know the circumstances of his birth. They also raised many technical points, i.e., should any time limit be imposed for the storage of sperm, should there be any restriction that can be inseminated or whether it can be used for another woman or whether it can be used as an anonymous donation. Present article discusses the status of PMSR in developing society of Indian subcontinent, various factors to be considered before absorbing international guidelines on PMSR and a brief about cost-effectiveness of PMSR procedure in India.

INTERNATIONAL SCENARIO

Many countries have their guidelines in place, whether to support PMSR or not while

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other countries are silent on the issue. Hungary and Slovenia prohibit PMSR while Czech Republic allows it. Other new European countries such as Cyprus, Estonia, Latvia, Lithuania, Malta, Poland, and Slovakia have no legislation or guidelines regarding PMSR.^[1] Japan allows it if blood relationship and husband's agreement are confirmed.^[2] In Australia, Infertility Treatment Act 1995 (Vic) prohibits the insemination of a woman with sperm from a man known to be dead. Australia's National Health and Medical Research Council guidelines on Assisted Reproductive Technology describe the use of gametes or embryos, which are harvested from dead, as "unethical."^[3] However, in new guidelines published in 2007, postmortem use of gametes is accepted with proper consent of the deceased and proper counseling of the widow after an appropriate time interval.^[4] In the UK, as per Human Fertilization and Embryology (Deceased Fathers) Act 2003, PMSR is allowed if the deceased has been given consent, as it says "a person is called father if the creation of the embryo carried by her was brought about using the sperm of a man after his death" and if he consented in writing (and did not withdraw the consent).^[5] According to 11th task force of European Society for Human Reproduction and Embryology, postmortem reproduction is acceptable on the following conditions: (a) Written consent of the deceased person, (b) extensive counseling of the partner, and (c) a minimum waiting period of 1 year before to start the treatment. The task force also allows the use of the gamete for the third party with all the conditions for donation of gametes and embryo.^[6] The Ethics Committee of the American Society of Reproductive Medicine published a guideline for postmortem reproduction which allows it, if consent of deceased is available and proper counseling of the partner and proper screening of the donor has been done for infection.^[7] All these guidelines which allow PMSR with consent of the deceased, say nothing about the cases with unforeseen sudden demise of the person and where no implied or expressed consent is in place. In Malaysia, the Malaysian Medical Council guidelines on assisted reproduction, published on 2006, prohibit any research or experimentation to be performed using any human oocyte and/or sperms.^[8]

SCENARIO IN VARIOUS DEVELOPING COUNTRIES

Sri Lanka

Many methods for assisted reproduction are available, artificial insemination by husband, artificial insemination by donor, egg donation, embryo donation, and surrogacy. Ethical and regulatory authorities are in place for assisted reproduction technique, but there is no guideline or rule for PMSR.^[9]

Pakistan

All forms of infertility treatment including *in vitro* fertilization (IVF), surgical sperm retrieval, and micro-assisted conception methods are allowed. However, any union of gametes outside a marital bond, whether by adultery or in the laboratory, is forbidden. The procedure of ovum donation and surrogacy is allowed between co-wives. However, fertilization of an ovum from cryopreserved sperm after the divorce of the couple or death of the husband strictly forbidden.^[10]

Nepal, Bhutan, and Bangladesh have no guidelines in place.

SCENARIO IN INDIA

Ethical and medical guidelines

The only guideline available in our country is "The Assisted Reproductive Technologies (Regulation) Rules - 2010" drafted by Indian Council of Medical Research (ICMR), New Delhi. The draft provides guidelines for assisted reproductive technology (ART) without any discussion over postmortem reproduction.^[11] Section 3.16.5 of "Guidelines for ART Clinics in India" allows insemination of the women with husband semen after death of the husband.^[12] However, in this scenario, sperm must have been collected while the husband is alive who may or may not be under imminent death but should be in sound mind.^[13] No guidelines have been provided for postmortem retrieval of sperm from the deceased husband.

Legal status of the child born out of ART

Under Indian Evidence Act 1872, a child born after 280 days of dissolution of marriage is considered illegitimate.^[12] However, as per ICMR guidelines, sperm should be cryopreserved for 6 months before insemination. According to the guidelines, any donor sperm should be quarantined for 6 months to avoid donor with venereal diseases.^[11] In this way, any child born through ART is legally illegitimate based on the count of days. Likewise, in the Indian succession act, which defines various laws regarding inheritance, definition of the child included "a child, whether adopted or natural-born." There is no discussion about the child born from various methods of ART. This suggests that a child born through ART cannot inherit. However, the assisted reproductive technology (regulation) bill, 2008, provides legal status to the child born through ART. It says, "a child born to a woman artificially inseminated with the stored sperm of her dead husband shall be considered as the legitimate child of the couple."^[14] Recently, some court rulings have also provided the right of inheritance to these children to some extent.^[15] However, still there is no discussion over postmortem pregnancy using sperm retrieved after death of the partner and child born thereon. Thus, legitimacy has been given to a child born through various ART procedures;

however, legal status of the child born through the process of PMSR still needs to be defined.

Social status of the child born out of ART

Indian society is now going through a transformation stage. One section of society believes in orthodox method; purity of life and chastity. While other section of people is liberal and open minded. They do not see illegitimacy as stigma.^[16] However, the concept of postmortem pregnancy is new to the society. As with all new concepts in a society, this will also take some time to be assimilated. However, with changing mindset of the society, it will not be difficult for these children to have the same social status as natural borns.

GUIDELINES ARE NEEDED REGARDING POSTMORTEM SPERM RETRIEVAL TAILORED FOR OUR SOCIETY

New York hospital guidelines, also known as Cornell guidelines, is the only wholesome guidelines available related to PMSR. It deals with the issue of consent, various medical contraindication, availability of the resources, and a 1-year waiting period for recipient evaluation.^[17] Before absorbing these guidelines for developing countries, there are some points that need deliberations. Ethical guidelines must address the issue of consent, interest of the child born therefrom, and cultural appropriateness of the procedure, along with other factors.^[17,18]

Issue of consent

The most important question is the consent of the deceased. Can the request of the partner be accepted without any expressed consent of the deceased, particularly in the case of sudden and unexpected death? Should consent of the partner and parents of the deceased be considered to infer the consent of the deceased? As per Cornell's guidelines, in the absence of deceased's consent, only consent of the wife matters as next of kin because she is the woman with whom the deceased had intended to have children.^[16] This could be difficult in the developing society as marriage is considered a sacred affair and there is always an emotional attachment with the deceased husband. Hence, when she says that she wants the procedure, it is not easy to infer whether she is taking the decision by weighing all the consequences or because of the emotional attachment with the deceased husband. However, in a developing society, remarriage in any circumstances is very difficult.^[19] In this scenario, the request of the wife for postmortem pregnancy seems logical. The request should be viewed against the expressed or inferred consent of the deceased. The relationship between the two must be established legally and it also be noted how stable the relationship was.^[6] This proxy consent of the partner for PMSR is not comparable with the proxy consent for organ donation of the deceased, as the consent given

for PMSR is for the benefit of the partner herself, whereas the consent given for organ donation is for the benefit of the third party.^[20]

It should be noted that sperm retrieval and its subsequent placement are two different processes. Sperm retrieval is an emergency procedure, so it must be done as soon as possible to have maximum viable sperms.^[21] On the other hand, placement is not an emergency situation.^[20] It can wait until the issue of consent is properly solved.

Resource availability

As per the Cornell's guidelines, sperm should be retrieved and cryopreserved within 24 h.^[16] For this, all the necessary facility including a male infertility specialist and Cryobank should be available. With the success rate of ART in India, this does not seem to be a problem.^[22]

Time duration

The guidelines have recommended a 1-year gap period before use of retrieved sperm by the wife. This time, duration is especially needed in developing society as there are social and emotional attachments of the wife with the deceased husband as well as with the deceased's family. This period will help her to understand life after death of the husband, and she will be able to weigh all the possibilities.

Psychosocial counseling

During the time gap, counseling of the wife must be done so that she can understand the procedure, success rate, potential benefit, limitation, and risks of such procedures. At the same time, she can able to infer how much it is going to change her life. She should also be counseled about rearing a child single-handedly and about the legal status of the child.

Other considerations

A study was done among the American society on the attitude toward PMSR and subsequent pregnancy with respect to five contextual variables, i.e. marital status, parental status, wish of the deceased's person, wish of the deceased's parents, and context of death.^[23] This study concluded that marital status, consent of deceased's parents, and wish of the deceased positively affected respondent's attitude toward PMSR, parental status, and cause of death had little effect and the respondent's religious belief had a negative effect on the attitude. No such study has been conducted in developing society to know their attitude toward PMSR and various issues related to it.

For a married woman, having a baby is essential as it is the symbol of motherhood. Babies bring an honor for the women in the eyes of in-laws. Infertility, in whatever way, affects women's subjective well-being and quality of life in a negative way.^[24]

COSTANDEFFECTIVENESSOFPOSTMORTEM SPERM RETRIEVAL PROCEDURE IN INDIA

ART practice has changed from conventional IVF to intracytoplasmic sperm injection (ICSI), which is favorable for using sperms retrieved from a deceased. The overall live birth rate in India using ART is 17.6%.^[25] Worldwide live birth rate is 26% from Australia, 20.5% from Europe, and 17.6% from the UK in recent years.^[22,26] This suggests that India is doing fair in the sector of ART at par with the world scenario. Cost of a single cycle of ICSI is about Rs. 1.2 lac (\$2000) in India, whereas in Western countries, it is about \$10,000 with the same success rate.^[27] Thus, cost-effect ratio is favorable for PMSR procedure in India.

CONCLUSION

With increasing awareness among people and easy access to the internet and social media, people are demanding quality health care, more nowadays than before. PMSR is one such procedure that requires considerable deliberations. The time has come to have guidelines about the issues discussed above as well as about the procedures to collect the sperm posthumously, to preserve them and to effectively use them with maximum benefits to the individual as well as to the society.

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