Editorial

Male Factor Infertility in Low Resource Settings: Diagnostic and Treatment Barriers

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Background

Male infertility refers to the inability of a male to achieve pregnancy in a fertile female. Hitherto in most part of the world particularly in Africa and other developing countries, women, bore the sole blame for barren marriages and took the psychosocial brunt; and in many areas infertility is a socially acceptable basis for divorce by the husband.[1-3] This may be due to the believe and inadequate knowledge and clear understanding existing in the sociocultural milieu of the couples. Male infertility is considered when identifiable female causes of infertility are excluded and semen quantity and quality fails to fulfill WHO criteria[4,5]

From available indices, Male factor infertility is quite common in developing nations and low resource settings accounting for 40-50% of infertility in humans,[6-8] and the most severe form of male infertility is that due to azoospermia which is present in 5% of investigated infertile couples[9], this is against the backdrop of the fact that socio-culturally this is down played in most of these settings even in face of clear evidence that the male may be sole cause of the infertility.[1,2,3] Indeed in some settings the concealment of the male factor may lead to family members coercing the women to having sexual intercourse with a brother or other male relations of the husband to get her pregnant on behalf of the husband. This sociocultural perspectives no doubt significantly impacts on the incidence of male infertility which may indeed be higher than the currently quoted figures and the treatment outcomes for those established cases, as compliance and follow-up of treatment is usually poor on the part of the males. The fact that males of infertile couples may not present for evaluation and seminal
fluid analysis, continue to give relevance to the SIMs Huhner's test in developing countries/low resource settings.[10,11]

Beyond the socio-cultural impediments that continue to remain a major challenge to the management of male infertility in developing countries and low resource settings, availability and affordability of investigations for male infertility, treatment facilities and expertise for management remains poor.

Discussion

There is paucity of health care facilities with the requisite needs for handling male infertility. Largely, the primary and secondary healthcare facilities that are closer to the greater majority of the inhabitants of low ary

resource settings in these nations are devoid of these management needs. The tertiary health care facilities with laboratories where some of the modalities for investigation such as the seminal fluid analysis and the presence of a Gynecologist may not be accessible and affordable by a larger proportion of couples with male factor infertility. They may be discouraged by the distance from their place of residence, lack of affordable means of transportation and the often prohibitive cost of treatment.

Hormone assays, facilities for genetic studies including karyotyping, testicular ultrasonography, vasogram and testicular biopsy are usually not readily available even in tertiary centers in most developing countries and low resource settings. Where they are available, they may not be readily accessed or afforded by the clients suffering male infertility for reason of cost as most patients with this condition are usually poor and there is no support for management of patients with infertility in countries of the globe.[23,13]

Again the needed experts for the full complements of investigations and treatment modalities such as a geneticist and urologists are usually not readily available even in tertiary heath care facilities in developing countries. This further accentuates the difficulty to access the only few distant centers from the abode of clients with male factor infertility and the cost becomes usually more prohibitive because of paucity in face of high demand.

Poor health seeking behavior of citizens of most developing nations also challenges male factor infertility. Some infertile couples often consult spiritual homes, herbalists, traditional healers before going to hospital. This is because of perceived spiritual causes of infertility. When they finally present to orthodox practitioners, they tend to move from one practitioner to another. Sometimes they go back to traditional healers because of the high cost of investigations and treatment for infertility.[10,11]

Continuous search for treatment of male infertility particularly the variants with etiological consideration being testicular factors (which are not readily amenable to conventional therapy), led to the discovery of in-vitro fertilization (IVF) and other assisted conception techniques. This option is very expensive and not readily accessible in developing countries. Extremely few public health care facilities have units for IVF and assisted conception, rather it is mainly private sector driven. The cost even in the few public health care facilities is usually prohibitive and out of the reach of very many clients. The acceptability of IVF from lack of appropriate information, impediments based on cultural and religious perspectives is another major challenge faced by this treatment option and has in some instances limited its use even by some that could have afforded it.

Adoption still remains a viable option for some couples where all other options fail. However this is poorly utilized in most developing countries. There are yet no clear laws and guidelines for its practice in most developing nations. The practice is further challenged in low resource settings and developing countries by serious sociocultural resentment to it.[14]

Poor budgetary allocations and or non-implementation of the meager allocation to health in face of poor political commitments to health care needs are other serious challenges in low resource settings. This makes the health care facilities poorly equipped in terms of facilities and requisite personnel.[12] The case for infertility management is made worse because of the strong moral and ethical debate against funding of infertility management with public funds in most countries of the world including developing countries.[12]

Finally, a large proportion of the citizenry in developing nations live in resource poor settings where there are no access to health care facilities, and for those that even live close to the health care

facilities, they may not have the economic wherewithal to afford hospital care. Therefore poor personal and individual state of finance remains yet another major impediment and challenge to accessing health care facilities to seek treatment for male infertility. The policy of health care delivery in most developing countries is based on a "cash and carry" principle and in the face of ravaging poverty this will serve as a significant impediment.

Conclusion

In conclusion, male factor contributes significantly to infertility globally with developing nations worse hit with its effect. The diagnosis and treatment of male infertility in low resources settings is significantly bedeviled with a number of intermediating socio-cultural, religious, economic and political challenges. Using conventional methods and recent technologies are expensive and not readily available in these environments. It is therefore necessary for us to understand the various factors that contribute to male infertility in our environment so as to develop preventive strategies.

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