

EDITORIAL

ASSISTED REPRODUCTIVE TECHNOLOGY (ART) - ROLE, CHALLENGES AND PROSPECTS IN MODERN GHANA

Assisted reproductive technology (ART) involves all interventions which use in-vitro handling of both human oocytes and sperm or embryos for purposes of reproduction. ART includes, but is not limited to, “in-vitro fertilization and embryo transfer” (IVF and ET), intra-cytoplasmic sperm injection (ICSI), embryo biopsy, preimplantation genetic testing (PGT), assisted hatching, gamete intra-fallopian transfer (GIFT), zygote intra-fallopian transfer (ZIFT), gamete and embryo cryopreservation, semen, oocyte and embryo donation, and gestational carrier cycles. Assisted insemination using sperm from either a woman's partner or a sperm donor is not included in ART (ICMART Glossary, 2017).

In a pro-natalist society like Ghana, infertility poses a major source of psychological, social and emotional burden to couples and their families. According to a recent 2017 data from the National Population Council, Ghana's total fertility rate (TFR), or the average number of children per woman, declined from 6.4 in 1988 to 4.0 in 2008. In 2015, Ghana's TFR was estimated at 3.73 and this figure is projected to reach 3.63 by the year 2020. Although the TFR in Ghana has been falling, its high rate continues to be a worrying reality for Ghana in terms of our population growth.

Infertility is currently defined as a disease where there is failure to establish a clinical pregnancy after 12 months of regular, unprotected sexual intercourse or due to an impairment of a person's capacity to reproduce either as an individual or with his/her partner (ICMART Glossary, 2017).

Role of ART- By helping to treat infertile couples with the delivery of babies, ART provides hope to the infertile couple in Ghana. It also helps with population growth thereby helping to replace the deceased. The role of ART in the area of economic growth is huge. It provides employment to the unemployed, and taxes on medicines, equipment and consumables for ART are increasingly becoming a major source of revenue for the government of Ghana as more ART centers are set-up.

Challenges facing ART in Ghana- It is very expensive to set-up an ART facility in Ghana. Due to the high cost of the set-up; and maintenance, the cost of treatment is understandably high as these inherent costs are passed on to the client. On the average, the cost of one cycle of IVF treatment in Ghana is about 26,852-42,963 GHC (5,000-8,000 USD) which is way beyond the reach of the average Ghanaian couple. Currently, there are no national guidelines or policies formulated to guide the practice of ART. Stakeholder meetings are ongoing to put together regulations on number of embryos one can

transfer at a time, egg/sperm donation, surrogacy, et cetera. There is currently no postgraduate program to train residents for ART at both the Ghana College and the West African College of Surgeons. Most clinicians who practice ART got their training from India, Europe, USA or South Africa. Almost all ART centers in Ghana are privately-owned with no tertiary teaching facility equipped at the moment to provide this service. This is very unfortunate for the young ones who are in training and need to have hands-on training in ART before they pass out as gynaecologists. The expensive cost of medications and consumables for ART is a major challenge to both clinicians and clients. It is about time the Government of Ghana puts some tax waivers on ART medications and consumables to help lessen the economic burden on clients and service providers. There are also religious concerns and prohibitions on ART. Some people in Ghana believe that selecting which embryos to transfer, selective feticide, pre-implantation genetic screening leading to the preferential non-selection of some embryos with genetic defects such as sickle cell disease et cetera is an act of playing God which is against their beliefs.

Prospects of ART- The economic potential of ART cannot be over-emphasized with the increasing advancement in technology and the increasing population of the infertile couples in our society. ART offers clinicians enormous research potential and opportunity. The use of pre-implantation genetic diagnosis (PGD) or pre-implantation genetic screening (PGS) also present scientists in Ghana great opportunity to prevent or reduce the incidence of some congenital anomalies. Egg/sperm cryo-preservation will provide hope for people who develop cancer of the ovaries/testes or those who accidentally are about to lose their gonads. With more women and men delaying the age at childbirth until they have achieved their career goals, Ghana is likely to experience rising prevalence of infertility, with clients requiring assistance through the use of ART.

In conclusion, ART is an important consideration in the health, population growth and the socio-economic development of Ghana. In this regard, we need the support of all stakeholders including the government to take proactive steps to assist the growth of the ART service delivery in Ghana. The enormity of ethical, legal and religious issues inherent in some ART procedures require that sooner rather than later, a regulatory body backed by legislation, is established or mandated to deal with issues that would arise.

Reference

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