Advancement in Technology and Its Encounter With Tradition:
Medical Techniques and Female Foeticide

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Abstract

Is our society handling the advancement in technology in right way? Never before have there been so many medical intervention options available to determine the well being of the foetus. Advancements in reproductive technology are encouraging and have given newfound hope to couples who may not have had these same opportunities just a few years ago. However, the society with deep-seated cultural preference for sons have misused this beautiful advancement in technology and hence skewed the sex ratio in various states of India. Advances in technologies, especially ultrasonography are now conveniently available at the “clinic next door”, with the woman’s family willing to dish out any amount that is demanded. The present article aims to reflect upon the advancement in technology and its impact on adverse child sex ratio. The article also tried to explore the possible options to counter this critical medico-social problem.

Keywords: Female Foeticide; pre-natal diagnostic tests

Introduction

Progress of science and technology is mandatory for the progress of a nation, but what matters most is its manifestation and beneficial application. Advancement in technology has played an important and constructive role in the area of reproductive biology. However on the other hand this advancement has put its adverse effect on child sex ratio. In India and China, which both need low cost alternatives for diagnosis and treatment, ultrasound use is regulated because of the common practice of using it to determine sex of the fetus and then to selectively abort female foetuses [1]. Social pressures in India, and the presence of low-cost technologies like ultrasound, have led to sex-based abortion of female fetuses, and an increasingly smaller percentage of girls born each year. In China, the one-child law combined with a preference for male children led to female foeticide [2].

A ban on the government departments at the centre and in the states, making use of pre-natal sex determination for the purpose of abortion — a penal offence — led to the commercialization of the technology; private clinics providing sex determination tests through amniocentesis multiplied rapidly and widely. These tests are made available in areas that do not even have potable water, with marginal farmers willing to take loans at 25 per cent interest to have the test. Advertisements appear blatantly encouraging people to abort their female fetuses in order to save the future cost of dowry. The portable ultrasound machine has allowed doctors to go from house to house in towns and villages. In a democracy it is difficult to restrict right to business and livelihood if the usual parameters are fulfilled.

The present article aims to reflect upon the advancement in technology and its impact on adverse child sex ratio. The article also tried to explore the possible options to counter this critical medico-social problem.

Medical Advancement in the area of Pre-natal Diagnostic Tests and Its Misuse

The three chief pre-natal diagnostic tests that are being used to determine the sex of a fetus are amniocentesis, chronic villi biopsy (CVB) and ultrasonography. Amniocentesis is meant to be used in high-risk pregnancies, in women over 35 years. CVB is meant to diagnose inherited diseases like thalassemia, cystic fibrosis and muscular dystrophy. Ultrasonography is the most commonly used technique. It is non-invasive and can identify up to 50 per cent of abnormalities related to the central nervous system of the fetus. But sexing has become its preferred application.

Chorionic villus sampling (CVS) and amniocentesis may be conducted in the eighth and ninth week, onwards. During chorionic villus sampling, a sample of the chorionic villus (which is a tissue of the placenta, the organ that connects the foetus to the uterine wall, to supply it with nutrients and gas, and to enable waste excretion) is obtained, and tested.