In Atharva Veda mantras are written for change of sex of fetus. Adverse sex ratio is from very beginning. In 1871 census there was 940 females to 1000 males. This was due to higher mortality in women and Sati Pratha. Mainly north India, which was attacked by invaders, resorted to female infanticide. One Sikh village had 31 females to 100 males. With female infanticide there was a feeling of sin. There was a ritual of purification after female infanticide. To check this Infanticide Act was passed in 1870. Government dowry fund was kept to take care of cause. In 1901 census still there were 930 females to 1000 males. This was due to subtle neglect of females. There was a belief that there is no life till quickening. With abortions there was no feeling of sin. In 1970 pre-natal testing was introduced in India. In 1981 census there were 930 females to 1000 males. There were advertisements "invest Rs. 500 now and save Rs. 50,000 later on"...from 1977-1982 78,000 female fetuses were aborted in India. From 1982 -1987 in Bombay, 10 sex determination clinics increased to 248.From 8000 abortions 7999 were female fetuses. There was a son mania.

In most of the states of India there is a craze for the male child in the society. Many women consider themselves complete only when they have a male child. Many women consider it is better not to have a child rather than having a female child. There are so many misconceptions in the society in this regard. These misconceptions are due to superstitions, poverty and illiteracy and dowry. Some religious rites also add to this problem e.g. only sons can perform the last rites on the dead body. discrimination with the females in the society add to the woes of the females and even females do not want to have the female children, perhaps they think that what they have suffered, their female progeny should not suffer the same.

With the advancement in the science now the sex of the fetus can be determined in the womb only with the help of the amniocentesis (after 15 weeks), ultrasonography (after 12 weeks) and chorion villous sampling (after 9 – 12 weeks) and levels of MSHCG (16 days after conception) higher level indicates female fetus is present (under research)

All these tests and investigations were developed to know the diseases and abnormalities of the fetuses. These tests were gradually employed to know the sex of the fetus in those females who were having many female children and were very keen to have a male child. Then these tests were gradually misused and after determining the sex, if it happened to be female, people started them getting aborted and misuse of MTP act started

With the result of low esteem for female child and the misuse of these tests sex ratio which was 945 females per 1000 males in 1991 dropped to 927 per 1000 males in 2001. In certain states like Punjab, Haryana, Delhi and Gujarat this ratio declined to 800:1000 and in the worst affected district of Fatehgarh Sahib this ratio declined to 752:1000. All this was due to misuse of the diagnostic techniques and the medical fraternity played a major negative role in this.

A lot of hue and cry was raised by the Non Governmental Organizations and ultimately government enacted a law known as "Pre-Natal Diagnostic Techniques (Regulations and Prevention of Misuse) amendment act 2002 (14 of 2003). This act was enforced with effect from Feb. 13, 2003.

This law was enacted to prevent the misuse of diagnostic techniques for determination of the sex of the fetus which ultimately leads to female feticide. With the enactment of the law advertisements for the prenatal diagnostic techniques for determination of the sex of the fetus have been prohibited. Any doctor who will violate this act can be punished with up to 3 years imprisonment and fine up to Rs. 10,000 for the first offence and for 5 years imprisonment and fine up to rupees 50,000 for subsequent offence and State Medical Council can erase his name for 5 years for the first offence and permanently for any subsequent offence. Any person who seeks such aid can be punished up to 3 years and fine up to rupees 50,000 for the first offence and up to 5 years and fine up to rupees 100,000 for any subsequent offence.

Any doctor doing the abortion of the fetus after such tests can be punished under the MTP act and sections 312, 313, 316 and 318 of the IPC depending upon the circumstances, as it will become a criminal abortion.

In cases where there is charge of female feticide it is important to know the sex of fetus because charge of the female feticide can be sustained only if the sex of the fetus is female. Usually in such cases examination of the genitalia may solve the problem but if fetus is mutilated we should do the nuclear sexing and should try to find out the percentage of Barr bodies in the cells and presence of Y chromosomes can rule out the female fetus.

Another important thing is that it should be established that the fetus belongs to that particular women and determine its maternity without any doubt. This can be done by doing the DNA profile of the women and the fetus. For this blood of the women and the tissue of the fetus should be sent to the forensic science laboratory (forensic serology laboratory) after proper preservation. 10 ml blood of the women in EDTA should be sent in a glass vial, preserved with dry ice. Alternatively a blood stain can be made on a piece of fresh cloth and dried and sent. Fetal tissue should be sent as such preserved in dry ice. Any tissue having intact nuclear material is a good sample. Other routine examination should be carried out as is done in the examination of the women and examination of the aborted material.

Long term complications that would be the fallout of female feticide will include fall in number of female children, imbalance in society, increase in sex related & other crimes against women, breakdown of traditional family, forced marriages and polyandry.

Further female feticide leads to unsafe motherhood due to complications of abortion like sepsis (uterus, peritonitis and septicemia), shock (hemorrhage, trauma and septicemia), hemorrhage (incomplete abortion, injury to cervix/uterus), oliguria, anuria (excessive haemolysis, hypovolaemia, infertility, chronic pelvic inflammation, etc.

Due to this, in India, abortion deaths per year have risen to about 20,000 and morbidity has increased many folds. Females are cornerstone of Indian families and part of Indian labor force. There was population explosion in south Asia. Mortality rate decreased but birth rate did not. People started talking if women do not get pregnant after 6 months of marriage. Up to 1987 it was a problem of numbers. Population control policy was devised by foreign experts who were funding and who had less knowledge about culture of India. A slogan – "Do ya teen bache hote hai ghar men ache" was popularized. With this not much of disturbance of sex ratio was there. Later on government switched to two child norms while propagating family planning. Advertising with one male and one female baby started. There are social and cultural compulsions for male baby. Status of women depended on male children in India. Who puts pressure on females to have the male child? Mothers in law and husbands, everybody wants inheritors of property. If the first child was female, it was nice. If the second pregnancy was of a female then what to do? People thought get rid of this pregnancy. It was the beginning of female feticide. It had an adverse impact on sex ratio of population. Amritsar is the seed farm of female foeticides. Even in 1991 census ratio of females in Amritsar was 861. Faridkot was 863 and in Bathinda were 865 for 1000 males. Greed amongst medical profession played its own role.

Root causes of this are dowry system in upper castes, superstitions – moksha is not possible without sons, poverty- males get better wages and religious rites- fire to funeral pre is by the sons only. It is a patrilineal society, patriarchal society, patrilocal society and males are family pride. Males are warriors and females do not fit the role. Females are considered social stigma.

Female infanticide will lead to less number of females in the society. It will lead to child marriages, marrying of woman to several brothers, increased sex violence against women, less work force, less teachers and nurses and reduced girl's esteem. 5 million women kill their unborn baby girl every year. Some doctors have sold their soul for greed

There was confusion in priorities either to control population or stop female feticide. Disturbed sex ratio is also a bane for China, South Korea and Taiwan and they also share this problem.

Projections for 2001 were 944 females to 1000 males but census of 2001 revealed 927 females to 1000 males. In Kerala there is more number of women, people more educated, there is matrilineal society and there is sexual equity. No doubt female feticide is bad but is male feticide good? We will have to give a thought to it also. There is misuse of technology in sex determination in the form of ultrasound machines and genetic centers

For sex determination there are myths that if fetal heart sounds is more than 140/min – fetus is male and if it is less than 139/min – fetus is female. There is also a Chinese calendar, according to date of birth of mother and month of conception. There is also said to be a Draino test by urine test in which if color is greenfetus is male and if color is brown fetus is said to be female. Ultrasonography is safe, easy to do, cheap and affordable. But if there is nexus of gynecologists with ultrasonography to be rich even if it is against law, has to be curbed.

Maharashtra was first to enact the law to curb female feticide. Maharashtra regulation of use of prenatal diagnostic techniques act was passed in 1988. PNDT act is an act to provide for the prohibition of sex selection, before or after conception, and for regulation of pre-natal diagnostic techniques for the purposes of detecting genetic abnormalities or metabolic disorders or chromosomal abnormalities and for prohibition of detection of sex of fetus, leading to female feticide and for advertisement prohibition. Permission and regulation of PNDT for detection of genetic diseases is for permitting the use of such techniques only under certain conditions by the registered institutions. Punishment for violation of the provision of the legislation. no pre-natal diagnostic techniques shall be used or conducted unless the person qualified to do so is satisfied that any of the conditions are fulfilled like if age is more than 35 years or more than 2 spontaneous abortions or exposed to teratogenic drugs or family history of mental retardation, genetic disease, physical disease or any other condition specified by CBS. Every offence under this act shall be cognizable, non-bail able and non-compoundable.

No person being a relative or the husband of the pregnant woman shall seek or encourage the conduct of any pre-natal diagnostic techniques on her except for the purpose specified like certain congenital malformations or sex-linked disorders and for the prevention of their misuse for sex determination leading to female feticide and for matters connected therewith or incidental thereto.

Greatest drawback is that there is no complainant neither the lady nor the doctors and fetuses never complain: they die a silent death.

We are trying to fix the symptoms and not solve the problem. In the last decade 14 millions female fetuses have been lost. My worries are that female infanticide may not become the natural outcome of law if we not taking care of root causes. Recently one father shot dead one month old female baby. There may start neglect of girls in early life and it may lead to higher female child mortality rate.

What to do? Female feticide is one extreme form of violence against females and humanity. Change the mindset. Energize all resources within your reach. There should be no dowry payment, educate masses and have women empowerment not only at workplaces, markets, schools but also at homes. I apology, I don't have answer to the problem. Answer lies with you or lies with masses. It is a tall order to women to produce two children and at least one should be a male. A process over which she has no control except female feticide 70% of deliveries in govt. hospitals are of male children (report in The Tribune on November 24, 2004.)

Look at the problem holistically. All sections of society including politicians and doctors along with the silent population have to be motivated to solve this problem from all the angles. Until we strike at the root causes and demolish them completely we will not see the light of the day. Policies have to be implemented honestly and with vigor otherwise only rates for these tests and procedures will increase and we will not get the results. I am reminded of a small story that a pond was ordered to be filled by milk by morning by the king. Everybody thought if I put water it will not be detected. In the morning it was all water in the pond. We may not face the same situation on female feticide. Have the will power and act and I assure you success will be yours, success will be of society, and success will be of the generations to come. Choice is yours - act or quit, but be ready - future generation will not forgive you if you miss the opportunity at this time.

Prof. R.K.Gorea