“Mirror Mirror on the Wall; Why my Child is Not the Prettiest of All”

An Insight on Birth Defects in Indian Population

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GUEST EDITORIAL

Though a newborn brings in its wake untold happiness to those around, there are some unfortunate babies whose birth is clouded with sadness and worry for the parents because of the birth defects. Birth defects include abnormalities in the new born baby’s structure, function or body metabolism which usually lead to physical and mental disabilities and can even be fatal sometimes. About 94% of infants born with birth defects come from the middle and low income countries. Experience from high-income countries shows that 70 percent of birth defects can be prevented. The “window of opportunity” to prevent birth defects is preconception care, with pre-pregnancy interventions.

Birth defects represent defective morphogenesis during early fetal life. Commonly seen birth defects are cleft lip, cleft palate, Down syndrome, congenital heart disorders, autism and neural tube defects while some rare birth defects seen are aglossia, cleft foot and hand. According to March of Dimes Global Report on Birth Defects, the prevalence of birth defects in India is 6-7% which translates to around 1.7 million birth defects annually. India ranks 38 among all countries in terms of the prevalence rate of birth defects.

The most common etiological factor for developing birth defects in India are advanced maternal age, low birth weight, consanguineous marriage, low socio economic status, maternal infections such as rubella and folic acid deficiency.

The data on the magnitude of birth defects in India suggests the need to establish a full-fledged birth defects program, with components of surveillance, prevention, treatment and management of patients, competency development, ethical and regulatory overview, research and advocacy. According to National Family Health Survey (NFHS 3) report in India, 22.8% pregnant female do not have any ANC care and around 33% receive any ANC care after 4 month, when the crucial period of organogenesis has already passed. Considering these fact, peri-conceptional care becomes an important and earliest step toward the prevention of birth defects. Peri-conceptional care can best be given through primary health care as it thoroughly covers the maternal and child health care in India especially in rural India. Auxiliary nurse midwife and accredited social health activist under National Rural Health Mission, by virtue of being close to the community, can easily find out the couples who are planning to have a child and are a potential candidate for peri-conceptional counselling and care.

The child health screening and early intervention service initiative by the Government of India, the Rashtriya Bal Swasthya Karyakram under the National Health Mission and District Early Intervention Centre is an attempt toward providing services for some of the more prevalent birth defects. Comprehensive Newborn Screening (CNS) program is also to be launched in Kerala state of India which will ensure that newborns will be screened for birth defects.

The most important and common nutritional deficiencies seen in Indian maternal population are iron and folic acid. Bollywood celebrities like Raveen Tandon have been associated with campaign like “Folic Acid Ki Jai”; to make people aware of the need of Iron- folic acid supplementation during pregnancy.

Many birth anomalies can be prevented and treated. An adequate intake of folic acid, iodine, Rubella vaccination, and adequate antenatal care
is the key. After conception, prenatal screening should be prescribed for all mothers during the first trimester to rule out any underlying birth defects and take an informed consent on continuation of their pregnancy. Properly planned nutrition, exercise, prompt medical checks, sufficient rest, emotional support, and supplementation should be provided for all pregnant moms both by family members and the medical fraternity. By adherence to all the above said cues and steps a mom can give birth to a healthy baby and thereby bring happiness and hope to her family and the entire society as a whole. No more mothers “will question the mirror”; as all the parents will be blessed with a pretty (healthy) child.