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Original Research Article

Study of Congenital Anomalies at Birth in a Relief Society Hospital

Dr. Bijan Kumar Mukhopadhayay[1], Dr saswati chakraborty[2]

[1]Associate Professor, Department of Obstetrics & Gynaecology, Sri Rama Krishna Institute of Medical Sciences and Sanaka Hospital, Durgapur, West Bengal, India.
[2]Assistant Professor, Department of Zoology, Banowarilal Bhalotia College, Asansol, West Bengal, India.

Corresponding Author
Dr. Bijan Kumar Mukhopadhayay, Associate Professor, Department of Obstetrics & Gynaecology, Sri Rama Krishna Institute of Medical Sciences and Sanaka Hospital, Durgapur, West Bengal, India.

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ABSTRACT

Background
Congenital anomalies are most common worst outcome as still birth and neonatal mortality during pregnancy. One of the major mental trauma to the mother and family members. It is also a heart felt trauma to doctor also while informing the patient and their relatives. The aim of the study is to determine the congenital anomalies baby born in this relief society hospital in Raniganj

Methods
The present retrograde study done in this relief society hospital in Raniganj in a period of January 2015 to June 2024. All the babies delivered in this hospital were included. The new born babies were examined by the obstetrician and the pediatrician properly for any kind of congenital anomalies. Detailed history from mother were also taken, specially for previous birth of any congenital malformation baby.

Results
During the study period around 8219 babies were born of which 93babies were born with congenital anomalies. The age group of the mother are 18-36 years. The prevalence rate is 1.13%. The system involved predominantly was the musculoskeletal system(40.86%) followed by the central nervous system (23.65%) and the gastrointestinal system(13.97%). The most common anomalies were talipes in the musculoskeletal group and meningomyelocele in CNS.

Conclusions
Health education and programme based awareness is the key of success for the preventable anomalies. Prepregnancy counselling is good option. Folic acid supplementation is also good for them who are planning for pregnancy.

Key Words- Congenital anomalies, prevalence, risk factors.

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INTRODUCTION

As per the WHO[1], The Congenital malformation can be defined as structural or functional anomalies that occur during intra uterine life.it may develop prenatally and may be identified before or at birth or later in life. An estimated 6% of babies worldwide are born with congenital disorder, resulting in hundreds of thousands of associated deaths. However, the true number of cases may be of much higher because statistics do not often consider terminated pregnancies and stillbirths.

Congenital disorders are one of the global burden of disease, specially for the low and middle income countries. The annual prevalence ranged from 162-242 per 10000 live births.[1] In India, more than 1.7 million children are born with birth defects every year.[1] Congenital anomalies represent an important cause of neonatal mortality both in developed and developing countries. Around 8–15% of perinatal deaths and 13–16% of neonatal deaths occurred in India due to congenital babies.[2,3] They are an important cause of fetal loss and are responsible for significant increase in number of preterm birth and childhood and adult morbidity affecting mothers and their families.

MATERIAL AND METHOD

This is a retrograde study done in a relief society hospital in obstetrics and gynaecology department in Raniganj during the period of January 2015 - June 2024. All the babies were delivered in this hospital were included. After the delivery the babies were evaluated routinely by the obstetrician and pediatrician. Prenatal routine and anomaly ultrasonography and 2D echo were done in few cases. External findings of babies were also included. Proper clinical examination of babies were done by pediatrician and if anomalies present were included and noted. Proper ultrasound, x-ray and 2d echo and chromosomal analysis were also done in selected cases. System wise distribution of anomalies seen in babies were noted. Proper history of mother are taken regarding age, parity, consanguity, history of any previous birth of any malformation baby.

RESULTS

During the study period, 8219 babies were delivered in our institution; of which, 93 babies had congenital malformations, giving the prevalence of 1.13%. Among the newborns, 9 babies were born of twin delivery and two of these 9 babies, born of multiple gestations, had one or more congenital anomalies. The system involved predominantly was the musculoskeletal system(40.86%) followed by the central nervous system (23.65%) and the gastrointestinal system(13.97%). The most common anomalies were talipes in the musculoskeletal group and meningomyelocele in CNS . As far as the parity of the mothers is concerned, 5603 mothers were primiparas and rest 2616 mothers were multiparas. More than half of the mothers who gave birth to anomalous babies were aged between 18 years to 36 years. 58 patient were multipara and 35 were primi. Percentage of congenital anomalies in multipara is 2.21% and for primipara it is .62%. The prevalence of congenitally anomalous babies born was 24 for mothers of <20 years age, 17 for 20–30 years of age , and 52 for more than 30 years of age. This difference was statistically significant proving that increasing age has association with anomalies. In the present study, there were twelve consanguineous couples and one couple had a congenitally anomalous baby. Low birth weight babies(<2.5kg) have more congenital anomalies. The male babies(.68%) are more affected than female babies (45%).

Table 1: Systemwise distribution of congenital anomalies (n=93)

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System	Number	Percentage
Musculoskeletal system	38	40.86%
Central nervous system	22	23.65%
Gastro intestinal system	13	13.97%
Genitourinary system	10	10.75%
Respiratory system	8	8.60%
Cardiovascular system	2	2.15%

DISCUSSION

Varieties of congenital anomalies seen with geographical variation. The prevalence of congenital anomalies in newborn babies were born in this hospital were compaired with other studies and found approx. same as2.72% and 1.9%.[4,5] It is very difficult to figure out the exact prevalence of congenital anomaly babies. It will be more if stillborn and abortion were included. It is not possible to collect the data from rural or village hospital or delivery conducted by local dai and quack doctors.

Most common congenital anomalies babies born with musculoskeletal system followed by central nervous system and then gastrointestinal system. Male baby have more congenital anomalies than female.[5,6] Low birth weight babies have more congenital anomalies than others. Multipara has more congenital babies than primi.

Suguna Bai et al.[7] showed a higher incidence of malformation in the babies born to mothers aged over 35 years, whereas Dutta et al.[8] documented statistically insignificant association of increased maternal age and congenital anomalies.

Consanguinous marriage has a role in congenital malformation of baby. In India proper health education, proper antenatal care,prenatal test are required to decrease the number of anomaly babies.

CONCLUSION

Congenital anomalies are mostly associated with the multiparity, increase maternal age low birth weight and consanguinity. Termination of pregnancy is not the the solution. So prepregnancy counceling ,folic acid supplementation, proper antenatal check-up, prenatal diagnosis are very much needed for prevention and early detection to decrease the number of newborn baby with anomalies.

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Conflict of interest: None

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