TO CORRELATE THE INCIDENCE OF CONGENITAL ANOMALIES ON ANTENATAL SCAN AND THOSE DETECTED IN POSTNATAL PERIOD IN KRISHNA INSTITUTE OF MEDICAL SCIENCES, KARAD

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ABSTRACT

BACKGROUND
Objective - To determine the number of congenital anomalies which were detected antenatally in antenatal scans and those detected during the postnatal period in Krishna Institute of Medical Sciences, Karad.

MATERIALS AND METHODS
A prospective cross sectional study was done for 1 year. All normal and LSCS deliveries were included in the study. All pregnant registered women were screened for congenital anomalies at around 20 weeks of gestation. Postnatally, all babies with the risk of congenital anomalies detected on the antenatal scan and those with normal antenatal scan but definite/suspected congenital anomalies at birth were evaluated further.

RESULTS
From a total of 3200 registered pregnant cases which were antenatally scanned,
• Number of congenital anomalies detected was 134.
• Number of pregnancies terminated due to congenital anomalies which were incompatible with life was 40.
• Babies with normal antenatal scans but postnatal defects were 29.

CONCLUSION
For the detection of foetal anomalies and well-being, antenatal scan should be mandatory in all pregnant women irrespective of outcome of the pregnancy. Early assessment of foetal condition would help us prepare in advance for the anticipated outcome and transfer the baby to the higher centre if necessary or option of MTP can be offered in case of poor prognosis.

KEYWORDS
Congenital Anomaly, Antenatal, Postnatal.

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BACKGROUND
The incidence of congenital anomalies has increased due to the greater awareness among people, lately. It has become mandatory for pregnant women to undergo at least 3 ANC scans for assessing the gestational age, congenital anomalies, foetalplacental well-being. The incidence of congenital anomaly being 9% with perinatal death and 2% associated with major defect, the USG scan has gained more importance in detecting foetal anomalies.

The 18-20 week foetal anomaly scan is considered watershed in most pregnancies because for the majority of women it will be the last time they will be scanned before they deliver.

The scans provide the clinicians with better information because by now the babies were better developed and the functioning of various organs could be assessed.

Many times, just a marker detected by sonography was further evaluated by amniocentesis.

Benefits Obtained
• It opened an option for MTP, in case of poor prognosis or incompatibility with life.
• It helps the clinicians to prepare for the anticipated outcome.
• It helps psychologically prepare the parents regarding the outcome.
• Preparedness for the immediate reversal of the anomaly improves the prognosis.

MATERIALS AND METHODS
• Around 3200 registered women over 1 year with their antenatal scans were considered.
• Babies born by both NVD and LSCS were clinically scanned for any anomalies.
• All the babies with the risk for anomaly either detected on ANC scan antenatally or those with normal ANC scan but definite/suspected anomaly at birth were evaluated further.

RESULTS
From total of 3200 registered ANC scans obtained,
• Congenital anomalies were detected on ANC scan were 134.
Pregnancies terminated due to fatal outcome or poor prognosis were 40, of which 29 were due to anencephaly and congenital hydrocephalus. 6 congenital CVS malformations. 5 were detected with miscellaneous anomalies. Babies with normal antenatal scan but defects found postnatally were 29.

**Congenital Anomalies on Antenatal Scan and Terminated were as follows:**

<table>
<thead>
<tr>
<th>CNS Anomalies</th>
<th>No. of Cases</th>
<th>CVS Anomalies</th>
<th>No. of Cases</th>
<th>Miscellaneous Anomalies</th>
<th>No. of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anencephaly</td>
<td>19</td>
<td>TGA</td>
<td>2</td>
<td>Meningomyelocele</td>
<td>3</td>
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<tr>
<td>Congenital hydrocephalus</td>
<td>10</td>
<td>Truncus Arteriosus</td>
<td>1</td>
<td>Renal agenesis</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
<td>TAPVC</td>
<td>1</td>
<td>Diaphragmatic hernia</td>
<td>1</td>
</tr>
</tbody>
</table>

**Congenital Anomalies were as follows on Antenatal Scan and Confirmed Postnatally**

<table>
<thead>
<tr>
<th>CNS Anomalies</th>
<th>No. of Cases</th>
<th>CVS Anomalies</th>
<th>No. of Cases</th>
<th>Renal Anomalies</th>
<th>No. of Cases</th>
<th>GIT Anomalies</th>
<th>No. of Cases</th>
<th>Musculoskeletal /Other Anomalies</th>
<th>No. of Cases</th>
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</thead>
<tbody>
<tr>
<td>Meningomyelocele and Meningomyelocele</td>
<td>11</td>
<td>Hydrocephalus</td>
<td>11</td>
<td>Gastroscisis</td>
<td>1</td>
<td>Abdominal cyst</td>
<td>2</td>
<td>Single umbilical artery</td>
<td>2</td>
</tr>
<tr>
<td>Spina bifida</td>
<td>3</td>
<td>VSD</td>
<td>3</td>
<td>Imperforated anus</td>
<td>1</td>
<td>Duodenal atresia</td>
<td>1</td>
<td>Single umbilical artery</td>
<td>3</td>
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<tr>
<td>Syringomyelia</td>
<td>1</td>
<td>TOF</td>
<td>1</td>
<td>Hypoplastic right sternocleidomastoid</td>
<td>1</td>
<td>Gastroscisis</td>
<td>1</td>
<td>Subcapsular haematoma of the liver</td>
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<tr>
<td>Corpus callosum agenesis</td>
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<tr>
<td>Arnold Chiari malformation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Diastematomyelia</td>
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</table>

**DISCUSSION**

Congenital anomalies are important cause of still birth and infant mortality. The incidence of congenital anomalies is on the rise due to advanced diagnostic techniques. In our study, we considered 3200 registered pregnant cases, which were antenatally scanned. The total congenital anomalies detected antenatally and postnatally with normal antenatal scans were 149. The number of cases detected on antenatal scans were 134. The number of pregnancies terminated were 40. Anencephaly and congenital hydrocephalus (70%) being the most common cause of termination followed by CVS anomalies (17%).

Like the previous ICMR studies, the maximum congenital anomalies detected antenatally were CNS anomalies (54%) and those detected postnatally with normal antenatal scans...
Percentage of babies detected with musculoskeletal and miscellaneous anomalies postnatally with normal antenatal scans were 35%. Percentage of babies detected with CVS anomalies postnatally with normal antenatal scans were 31%. Percentage of babies detected with renal anomalies postnatally with normal antenatal scans were 14%. Percentage of babies detected with CNS anomalies postnatally with normal antenatal scans was 11%. Percentage of babies detected with GIT anomalies postnatally with normal antenatal scans were 7.4%.

In 12% cases, history of consanguinity was present. Majority of the mothers were under 30 years of age, 46% were primigravida. In 32% of cases, congenital anomalies were detected before 28 weeks. There were increased anomalies in mothers associated with hydranmios, eclampsia, uteroplacental insufficiency, previous history of abortion, premature rupture of membranes, toxaeimia of pregnancy. [6]

CONCLUSION
Out of total of 3200 deliveries, number of congenital anomalies detected were 134 on antenatal scan, number of pregnancies terminated due to congenital anomalies which were not compatible with life were 40. The commonest system involved being craniospinal system (70%). The second most common being CVS anomaly (17%).

Percentage of babies detected with CNS anomalies on ANC scan were 54% of the total anomalies detected antenatally. Percentage of babies detected with renal anomalies on ANC scan were 15% of the total anomalies detected antenatally. Percentage of babies detected with musculoskeletal anomalies and other miscellaneous anomalies on ANC scan were 8.1% of total anomalies detected antenatally. Percentage of babies detected with GIT anomalies detected on ANC scan were 4.4% of total anomalies detected antenatally.

REFERENCES