MATERIAL AND METHODS
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Study population comprised of the patients of various types of congenital heart diseases attending the Out Patient Department of Pediatrics or admitted in Pediatric ward of Maharani Laxmi Bai Medical College Hospital, Jhansi during September, 1989 to August, 1990. Detailed history and clinical examination was conducted and various investigations were done to confirm the diagnosis.

In this study we used the same definition of congenital heart disease as Mitchell (1957), who defined it as "a gross structural abnormality of the heart or intrathoracic great vessels that is actually or potentially of functional significance". Abnormalities of systemic veins and systemic artery branches were excluded but patent ductus arteriosus was included.

In the study, the classification of congenital heart disease given by Beverly, C. Morgan (1976) was used. The lesion were first classified on the basis of presence of or absence of cyanosis clinically. Later according to the pulmonary vasculature in chest roentgenogram, they were further divided into lesion with decreased or increased or normal pulmonary blood flow, and then according to electrocardiographic findings.
Where more than one lesions were associated, they were classified according to dominant lesion.

Detailed interrogation was made pertaining to presenting complaints, history of present illness and history of past illness. A detailed history regarding any maternal illness, history of taking medication or exposure to radiation during gestation was asked. History regarding any abortion or still birth or any other sibling or family member suffering from any congenital heart disease, consanguinity, elderly or teenage mother, and birth order were also taken.

Developmental history was recorded in all the spheres. Gross-motor, fine motor, social and speech mile stones attained till date was recorded in every case. In four developmental fields, quotient was calculated by dividing the developmental age from chronological age and then multiplying this value by 100 (Prabhakar and Kumar, 1983).

Every patient was examined in detail, including general examination, anthropometric measurements, detailed cardiovascular examination and other systems to look for other congenital defects.
Particular emphasis was paid during cardiovascular examination. This included examination of radial as well as other pulses, blood pressure and examination of precordium. Careful inspection, palpation, percussion and auscultation was done in each case to see for site of apex beat, any thrill, other pulsations, heart sounds and various murmurs.

While investigating the case routine haematological studies were done in each case. At the same time chest x-ray F.A. view, and if needed lateral and oblique & barium swallow studies were also done. Electrocardiogram was taken in all the cases. We also included echocardiographic findings of the patients, who already had it with them while they attended the hospital or shown to us in follow up after getting it done at hospitals equipped with such facility. We had forty such cases.

Diagnosis was made and later defects were classified under various groups as shown in table.
### TABLE
Classification of Congenital heart disease

#### CYANOTIC

- Decreased Pulmonary blood flow
  - RVH
    - PS
    - PS + VSD
      (Tetralogy)
    - Pulmonary vascular obstruction
      (Eisenmenger's)
    - Ebstein's
  - LVH
  - Tricuspid atresia

- Increased Pulmonary blood flow
  - RVH OR LVH
    - Truncus arteriosus
    - Hypoplastic left heart syndrome
    - Tricuspid atresia + TGA
    - TAPVC
    - TGA
    - Single ventricle

#### Acyanotic

- Normal pulmonary blood flow
  - Coarctation
    - Mitral stenosis
  - LVH
    - Aortic stenosis
    - Mitral regurgitation
    - Endomyocardial disease

- Increased pulmonary blood flow
  - RVH
    - ASD
    - All left to right shunt with pulm hypertension (PDA, VSD, ASD)
    - PDA
  - LVH
    - VSD
    - Arteriovenous fistula

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**Abbreviations:**
- RVH = Right ventricular hypertrophy
- LVH = Left ventricular hypertrophy
- BVH = Both ventricular hypertrophy
- VSD = Ventricular septal defect
- ASD = Atrial septal defect
- PDA = Patent ductus arteriosus
- TAPVC = Total anomalous pulmonary venous circulation
- TGA = Transposition of great vessels
- PS = Pulmonary stenosis
Patients having VSD were again classified in mild, moderate or severe type according to clinical assessment of the defect. The patients with mild or small VSD were those, who presented later in infancy with no or mild symptoms, normal split second heart sound and without any flow murmurs. S.C.G. and X-ray were normal. Patients with moderate type of defects had moderate symptoms with normal or narrow split of second heart sound, with or without flow murmur and mild abnormalities of X-ray and ECG with or without pulmonary hypertension. In severe type, patients presented early in infancy usually with congestive cardiac failure. The flow murmurs, narrow split and pulmonary hypertension were usually present.

In X-ray there was significant cardiomegaly, prominent pulmonary artery and increased pulmonary vasculature. It was possible to confirm the size by echocardiography in seventeen of the cases out of 30 cases.

At last all the findings were tabulated and analysed statistically.