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To study the incidence of rheumatic heart disease and congenital heart disease with pregnancy

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ABSTRACT

Background & Methods: The aim of the study is to study the incidence of rheumatic heart disease and congenital heart disease with pregnancy. Patients with heart Diseases either booked or unbooked cases who were admitted in OBGY during study period, were recruited. The booked cases were seen by obstetrician in outpatient department and by cardiologist in the respective O.P.D.to check their cardiac status.
Results: Maximum no. of cases were in age group 21-25 yrs. Followed by equal no. of cases in age group <20 yrs. and 26-30 yrs. 30 cases, 30(90%) cases were suffering from rheumatic heart disease while only 03 (10%) cases had congenital heart disease. The distribution of cases according to period of gestation in weeks. The maximum no. 14 (46.6%) of cases had come with the pregnancy of 33-40 weeks. Only 01 cases were postmature. 23.3% of cases delivered spontaneously. L.S.C.S. done in 16.6%. ventouse applied in 03 cases & forceps in 1 case. Premature deliveries in 20% cases.
Conclusion: We conclude an incidence of 0.2%. Mostly cases were rheumatic heart disease (90%). Out of which 32% had mitral stenosis as commonest lesion. 8.9% cases were of congenital heart disease. Maximum cases 4.3% were between age group 21-25 but mostly belong to low risk category. 23.3% cases had spontaneous vaginal delivery. LSCS was done only in 16.6% cases, with mostly because of obstetrics and foetal causes. Pre-conception counseling should be offered to all women with heart disease with the aim of avoiding risks and helping them to plan their future.

1. Introduction

A relationship among pregnancy and cardiovascular breakdown was first perceived in 1849. Coronary illness was one of the main sources of maternal mortality not because of obstetric confusions. Report on secret enquiry into maternal passing in Britain and Ribs, 1979-1981 and oakley CM Cardiovascular sickness in pregnancy 1990, Figure out that Heart illness in pregnancy is a reason to worry and is a significant perceived reason for maternal death.[1]

In India, coronary illness is analyzed generally in pregnancy interestingly, when expanded requests on the heart trigger side effects and expose cardiovascular disease.[2] Despite the fact that rheumatic fever has diminished in evolved nations lately, it keeps on being a difficult issue in creating countries.[3]

The assessment and the executives of valvular coronary illness in the pregnant patient requires a comprehension of the ordinary physiological changes related with growth, work, conveyance, and the early post pregnancy time frame. During typical pregnancy there are emotional changes in cardiovascular physiology started by a fall in fundamental vascular protection from 30-70% of its predisposition esteem by about two months of gestation.[4] The component liable for setting off such boundless vasodilatation is muddled, however expanded circling levels of estrogens,

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vasodilatory peptides or factors, for example, nitric oxide and calcitonin-quality related peptide (CGRP) have all been recommended as potential causes.

The fall in foundational vascular opposition brings about liquid maintenance and an expanded blood volume. Since there is a somewhat more noteworthy extension in plasma volume this outcomes in a fall in haematocrit and plasma osmolality. The expansion in cardiovascular result is optional to a more noteworthy stroke volume and higher heart rate.[5] It ascends to a top between 20-24 weeks of development and stays stable until term. Blood vessel circulatory strain falls until mid-pregnancy, steadily getting back to prepregnancy levels late in the subsequent trimester. Drawn out volume over-burden brings about moderate physiological left ventricular hypertrophy.

2. Materials and Methods

Thirty consecutive patients with heart Diseases either booked or unbooked cases who were admitted in OBGY during study period, were recruited. The booked cases were seen by obstetrician in outpatient department and by cardiologist in the respective o.p.d.to check their cardiac status.

After admission, the patients were classified according to the type of heart disease, Either congenital or acquired, from the history obtained from the patients, from the attendants as well as from the previous medical records.

2.1. Study design

Observational study.

3. Result

Table 1: Age wise distribution of cases

Age in years	No. of cases	% age
16-20 yrs.	07	23.3%
21-25 yrs.	13	43.3%
26-30 yrs.	06	20%
31-35	03	10%
>35	01	3.3%

Above table shows that maximum no. of cases were in age group 21-25 yrs. followed by equal no. of cases in age group <20 yrs. and 26-30 yrs.

Table 2: Type of cardiac lesion

	No. of cases	% age
Rheumatic heart disease	27	90%
Congenital heart disease	03	10%

Above table shows out of 30 cases, 30(90%) cases were suffering from rheumatic heart disease while only 03 (10%) cases had congenital heart disease.

Table 3: Distribution of cases according to period of gestation in weeks

Period of Gestation In Weeks	No. of Cases	% Age
Below 20	04	13.3%
21-27	05	16.6%
28-32	06	20%
33-40	14	46.6%
41 & above	01	3.3%

Above table shows the distribution of cases according to period of gestation in weeks. The maximum no. 14 (46.6%) of cases had come with the pregnancy of 33-40 weeks. Only 01 cases were postmature.

Table 4: Outcome of pregnancy

Mode of Delivery	No. of Cases	% Age
Spontaneous vaginal delivery	07	23.3%
Cerviprime induced labour	04	13.3%
Misoprost induced delivery	02	6.6%
L.S.C.S.	05	16.6%
Forceps	01	3.3%
Ventouse	03	10%
Premature delivery	06	20%
M.T.P.	01	3.3%
Abortion	01	3.3%

Above table shows that 23.3% of cases delivered spontaneously. L.S.C.S. done in 16.6%. ventouse applied in 03 cases & forceps in 1 case. Premature deliveries in 20% cases.

4. Discussion

The incidence of heart disease with pregnancy fluctuates with geological area and with the recurrence of inclining factors.[6] Not many examinations effect of coronary illness on pregnancy they reasoned that In western nations, maternal coronary illness muddles 1-3% of pregnancies and is the third normal reason for maternal passing during pregnancy.[7]

Concentrate on completed in Japan in 1997 During the review time frame, our organization gave a sum of 4373 conveyances and 3.5% (151/4373) represented pregnancy with grown-up CHD.

The frequency of rheumatic coronary illness is still high in agricultural nations like India. The occurrence of coronary illness was 0.98%. The occurrence study during a long term period was 2.4%. Rheumatic coronary illness represents 80-90% of generally cardiovascular sickness with

pregnancy in a large portion of the nations exceptionally developing.[8]

Our review shows the etiology of cardiovascular sores. In our review all out no. of rheumatic coronary illness were 27(90%) and innate coronary illness 03(10%). Coronary illness in Pregnancy the commonest heart sore during pregnancy is of rheumatic beginning followed by inherent one. Rheumatic coronary illness is as yet the main source of death because of coronary illness in young lady in the creating world.[9]

One more review study was done in the cardio-obstetric center over a time of 13 years including 486 pregnant patients with rheumatic coronary illness. One more review done by showed that rheumatic valvular illness was 68.5 percent.[10]

To look at maternal and fetal results in patients with non-worked valvular coronary illness and patients who had a medical procedure previously or during pregnancy. The pace of preterm conveyances didn't vary essentially, Mitral valve medical procedure previously or during pregnancy didn't fundamentally further develop maternal and fetal results yet diminished antagonistic occasions like congestive cardiovascular breakdown and heart arrhythmias. It ought to be in this way performed exclusively in chosen cases.

5. Conclusion

We conclude an incidence of 0.2%. Mostly cases were rheumatic heart disease (90%). Out of which 32% had mitral stenosis as commonest lesion. 8.9% cases were of congenital heart disease. Maximum cases 4.3% were between age group 21-25 but mostly belong to low risk category. 23.3% cases had spontaneous vaginal delivery. LSCS was done only in 16.6% cases, with mostly because of obstetrics and foetal causes. Pre-conception counseling should be offered to all women with heart disease with the aim of avoiding risks and helping them to plan their future.

6. Source of Funding

None.

7. Conflict of Interest

None.

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