

Impact of Elective Abortion in pregnancy with Cardiac problems

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Abstract

Introduction: Pregnant women with heart diseases advance either to preterm/term delivery. Some of the pregnancies end in abortions, which however are spontaneous or are terminated for medical reasons.

Method: Retrospective study done in the Department of Obstetrics and Gynecology at Tribhuvan University Teaching Hospital from April 2010 to March 2011 (Baisakh 2067 to Chaitra 2067); Source of data was Operation Theater Register and Admission files.

Results: MTP were done for altogether 18 cases of heart diseases in pregnancy. Primigravida (6) and multigravida (12) were seen in age groups 20-30 (13); 30-40 (5) at gestational weeks of 6-8 (n=10); 9-10 (n=6); 11-12 (n=1); >12 (n=1). The heart diseases were {CHD (1); rest 17 RHD: Majority being done following post valve replacement surgery 11[AVR (1); DVR (3) & MVR (7)]}. Latter mandated a tedious process of anticoagulation, switching from heparin to warfarin and vice versa demanding prolonged hospitalization (up to 12 days) as co-morbidity. Mainly because repeat MVA was needed for incomplete abortion as complication in one case, subsequent procedures were done under USG guidance.

Conclusion: It is simpler and safer to avoid pregnancy in heart diseases; especially in those women with post valve replacement surgery rather than imposing MTP, the procedure concerned are not without associated risk, beyond doubt.

Key words: Medical termination of pregnancy (MTP), anticoagulation, valve replacement surgery

Introduction

Pregnant women with heart diseases advance either to preterm/term delivery. Some of the pregnancies end in abortions, which however are spontaneous or are terminated for medical reasons. In addition, yet there are women with heart disease who because the pregnancy was unplanned opt to undergo elective abortion on demand. Elective abortion on back ground of heart disease is very small.¹

Scenario in Tribhuvan University Teaching Hospital (TUTH) today is very different. Having two cardiac centers, one within the hospital complex and other a little further

have given us the added responsibility. Many women come to us, for safe medical termination of pregnancy, as their physician/cardiologist feel that the particular pregnancy would not be safe to the mother.

Many women, after cardiac valve replacement enter a pregnancy that they do not want to continue. This often is faced as additional burden, solely because of the exercise involved in changing to heparin and back to warfarin is sought to as time consuming process. More so, when a need to re-evacuate the uterus becomes necessary due to incomplete abortion detected after going through the whole course of switching over to warfarin from heparin-once

again in the anticoagulation process.^{2,3}

In wisdom of understanding, why invite pregnancy that calls for termination in this group of women with high risk factor. Or why not use a family planning measure that does not let pregnancy happen in the first place rather going for MTP?

In this context, a study was designed to look at the impact of elective abortion in pregnancy with heart diseases at TUTH.

Method

Retrospective study was done in the Department of Obstetrics and Gynecology at TUTH from case files of admission, discharge and OT records were taken into account.

Results

Altogether 18 cases underwent MTP for heart diseases in pregnancy. The age group were 20-30 (n=13) 72% and 30 - 40 (n=5) 28%. Primigravda formed 6(33%) and multigavida 12 (67%). Only one case underwent second trimester abortion rest 17 were done at first trimester (Fig1). Period of gestation in weeks were as follows 6-8 (56%), 9-10 (34%); 11-12 (5%) and more than 12 (5%).

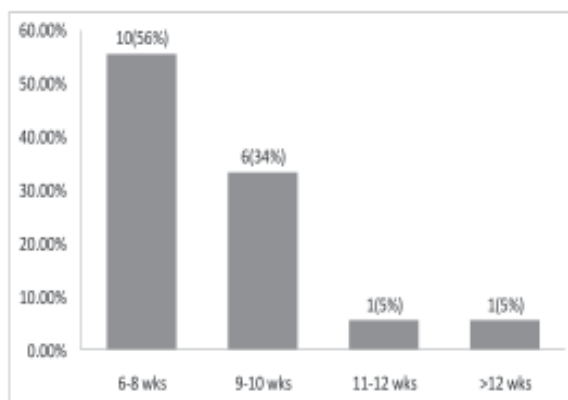


Fig. 1: Gestation age of the women with heart disease

The figure shows the period of gestation in weeks: 6-8 (56%), 9-10 (34%); 11-12 (5%) and more than 12 (5%).

Two (11%) cases underwent MTP on request, 5(28%) as family was complete and were already multipara and 11(61%) with threat of warfarin embryopathy. (Fig 2.)

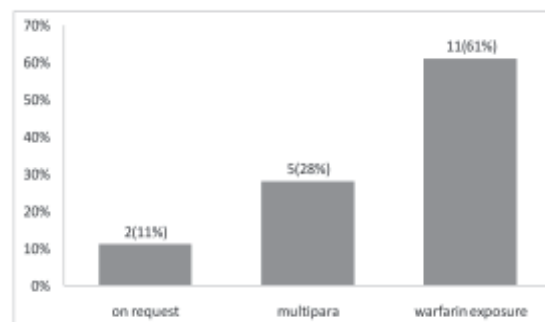


Fig. 2: Reason for termination of pregnancy

Two (11%) cases underwent MTP on request, 5(28%) as family was complete and 11(61%) with threat of warfarin embryopathy.

NYHA Grade 1 (72%) and NYHA Grade 2 (28%) were respectively classified among these 18 cases that comprised of only one case having congenital heart disease (CHD) 5% but 95% having diagnosis of rheumatic heart disease (RHD).

Of the 17 cases of RHD; 6 of them had no surgery before and or they did not have any anticoagulant therapy. There were two cases of severe mitral stenosis (MS); two cases of severe mitral regurgitation (MR) where one case had mixed lesion MS+MR and other had severe aortic regurgitation (1). (Fig 3)

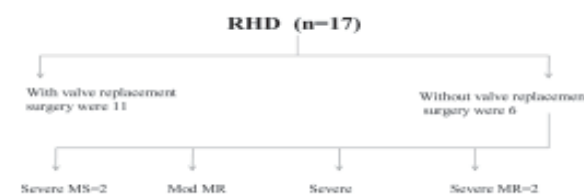


Fig. 3: RHD

Eleven of the 17 cases had valvular replacement surgery and 6 did not.

Eleven of the 17 cases were those that had undergone valve replacement surgery in the past; the cardiac surgery were in form of atrial valve replacement [AVR (9%)]; double valve replacement [DVR (27%)] and mitral valve replacement [MVR (64%)]. (Fig. 4)

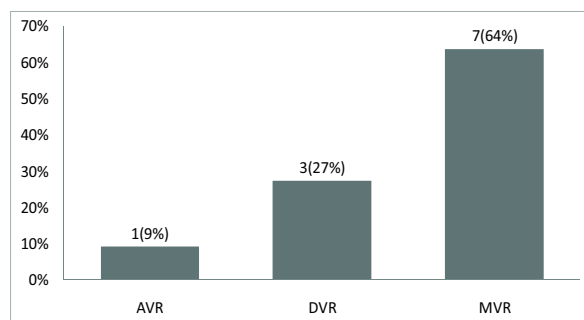


Fig. 4: Valve replacement surgery

Cardiac surgery were atrial valve replacement [AVR (9%)]; double valve replacement [DVR (27%)] and mitral valve replacement [MVR (64%)]. (Fig. 4)

Measures of infective endocarditis prophylaxis (IEP) were taken in all of the cases. IEP included Ampicillin 2gm iv and Gentamycin 80mg iv, ½ an hour prior to surgery which was followed by oral amoxicillin 500mg 8hrly and inj gentamycin IM 80mg twice daily for 5 days.

Although the most recent NICE (National Institute of Clinical Excellence) guideline recommends no antibiotic IE (Infective endocarditis) prophylaxis, a benefit has been judged possible from this small experiences as there were no infection in form of mural vegetation.

All of the 18 cases were terminated by surgical method that is manual vacuum aspiration (MVA) in operation theatre under supervision of anesthesiologist, where 78% of the procedures were done under general anaesthesia and 22% local anaesthesia.

One of the cases needed a repeat procedure for incomplete abortion. The total number of hospital stay ranged from minimum of 4 to maximum of 16 days [4 days(1) , 5days (1) , 7days (1); 8days (3) , 10 days (5), 11 days (3), 12 days (2), 1 pt stayed for 13 days (1) and 16 days(1)]. (Fig 5)

Discussion

Special considerations have been laid in women with pre-existing cardiac diseases to undergo Medical Termination of Pregnancy (MTP) in view of maternal/fetal well being although the procedures does not ensures 100% safety.⁴⁻⁶

The reasons for MTP were feared materno-fetal risk in a case of CHD due to significantly linked complication that constitutes an indication for termination of pregnancy on its own.^{4,7,8}

On the other hand there were 11/17 pregnancy with RHD, who having had undergone valve replacement surgery, were receiving warfarin anticoagulation therapy the exposure of

which during first trimester is known to attribute characteristic skeletal abnormalities such as nasal hypoplasia, a depressed or narrowed nasal bridge, scoliosis and calcifications in the vertebral column, femur, and heel bone. In these women, for achieving acceptable INR prior/post procedure (MVA for MTP) and switching to/from heparin from/to warfarin demanded undesirably long duration of hospitalization which often became tedious at times.

Therefore it is warranted that all the women undergoing valvular surgery be first send to the obstetricians for counseling.⁷This could invariably reduce the risk of maternal morbidity associated with the procedure.

We have dealt with women who have been referred even in and around the mid pregnancy where termination would mean more harm than good. Once we had women, coming to us for termination of second pregnancy at second trimester, who have had valve replacement surgery and was being referred with pretext that she would not be able to withstand the pregnancy, when the history traced would reveal an easy home delivery. These things happen in our part of globe whereas there are big challenges and smart surgery that spells of heroic deed today. ^{9, 10}

Because of the advent of cardiac surgery and buildup of Cardio-Obstetric-Anaesthetic team in Nepal, today, many women in the reproductive age group, following post valvular surgery become well enough soon to become pregnant. Sooner or later they demand for MTP, once they become pregnant, as the law does not forbid abortion. Such a practice should be modified by seeking access to contraception.

Hence it is important to realize, not let the pregnancy happen at all rather than indulge in terminating the pregnancy that was not at all wanted. Termination of pregnancy either in first or second trimester is not without risks, in any women especially in women of heart disease and the tendency to go for termination should be replaced by acquisition of contraceptives.

Conclusion

Women with heart disease benefit more from contraception rather exposing them to medical termination of pregnancy if latter means a risk to them.

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