Research Paper Medical Science

Prevalence And Types of Tricuspid Regurgitation :A Retrospective Echocardiography Based Single Center Study.

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ABSTRACT

OBJECTIVE:The present study conducted in Hamidia hospital ,Bhopal ,MP(Central India)with the objective is to found the prevalence and different types of tricuspid regurgtiation based on echocardiography.

MATERIALS AND METHODS:The present study conducted in the cardiology department Hamidia hospital Bhopal,MP (Central India) during January 2009 to July 2011 .It was a retrospective echo based study.Out of 10,000 consecutive cases undergoing echo CD 1203 cases of tricuspid regurgitation were found and we divide tricuspid regurgitation into organic,functional,congenital,left ventricular systolic dysfunction and idiopathic TR.

RESULTS AND CONCLUSIONS:1203(12.03%)cases of tricuspid regurgitation were found in the present study. Functional tricuspid regurgitation were most commonly found in the present study followed by idiopathic,congenital,LVSD and least effected were organic TR in the present study.

KEYWORDS : Tricuspid regugitation(TR)2.Echocardiography3. Types of TR 4.Prevalence

INTRODUCTION:

Tricuspid regurgitation (insufficiency) is the failure of the tricuspid valve to close properly during systole,leading to the leading to the leaking of blood from the right ventricle to the the right atrium.Tricuspid regurgitation is a common echcardiographic finding.Tricuspid regurgitation can be classified as organic when it is due to intrinsic abnormality in the valve apparatus or secondary (functional) in the absence of structural abnormalities of tricuspid leaflets.

Organic TR results from structural abnormalities of TV apparatus, may be congenital or acquired and accounts for only 8-10%of all severe TRs[1,2].Functional TR is frequently caused by increased right ventricular (RV)afterload and is associated with advanced stages of left sided cardiac valve[3,4] myocardial or pulmonary[5,6] diseases, the link FTR excessive afterload of pulmonary hypertension (PHTN) is construed as a core mechanism and is the main focus of guidelines for valve diseases.[7]Accruing reports noted FTR with normal pulmonary pressure and without overt cause,despite comprehensive workup,[8]referred as idiopathic FTR(Id-FTR).[9,10,11,12,13.]

While mild FTR is frequent and benign,patients with sevre FTR may develop progressive ventricular dysfunction and incur increased mortality.Therefore,FTR shouldnot be ignored,should be appropiately diagnosed and quantified by echoCD and be evaluated for corrective surgical procedures.

The present study was conducted in Hamidia hospital,Bhopal,MP. (Central India) is to found the prevalence and diferent types of TR based on echoCD.

MATERIALS AND METHODS:

Th present study was conducted in cardiology department Hamidia hospital,Bhopal Madhyapradesh(Central India).The study period was January 2009 to July2011.It was a retrospective study in which 10,000 consecutive cases present in cardiology department either ICCU or OPD undergoes after proper history and thorough clinical examination were analysedEchocolor Doppler.Echo CD was performed by consultant cardiologist.Data collected from echo records, computerized and analysed.

1203 cases of tricuspid regurgitation of 10,000 consecutive cases undergoing echocardiography were found.We divide the tricuspid regugitation into organic , functional, idiopathic , congenital and left ventricular systolic dysfunction TR.

CRITERIA FOR THE DIFFERENT TYPES OF TRICUSPID REGUGITATION:

1.Organic tricuspid regurgitation can be ruledout by in the present study by the presence of endocardial cushion defect,ebstein anomaly,tricuspid valve endocarditis and tricuspid stenosis.

2.Functional tricuspid regugitation included the presence of left sided valve diseases and pulmonary diseases.

3.Congenital tricuspid regurgitation except those congenital heart diseases present in organic TR.

4.Left ventricular systolic dysfuction TR with ejection fraction <50%.

5.Idiopathic tricuspid regurgitation.

RESULTS:

In the present study of 1203(12.03%) cases of tricuspid regugitation were found out of 10,000 consecutive cases undergoing echocardiography in cardiology department Hamidia hospital, Bhopal,MP(Central India) .Of these 1203 cases found in our study we divide the TR into organicTR,functional TR,congenital TR,left ventricular systolic dysfuction TR and idiopathic TR .

In our study 39 cases (3.2%) of organic tricuspid regugitation were found,692(57.5%) were functional tricuspid regurgitation with PASP>50mmhg,91 cases (7.6%) werefound to be congenital TR,72 cases (5.98%) were left ventricular dysfunction and 309(25.7%) TR were of idiopathic(PASP<50mmhg) in origin in the present study.

DISCUSSION:

In the present study ,of 1203cases(12.03%) of tricuspid regugitation were found.Very few studies were found to be discuss with our study .In the present study 3.2% cases of organic TR were found as compared to study by ToplikyY etal[14] 11.9% of organic TR were found which is somewhat lower in our study.

In our study ,57.5% of functional tricuspid regurgitation (PASP>50mmhg) were found which is found to be higher as compared to the study by Toplisky Y etal[14](28.9%).

In the present study,7.6% cases of congenital TR were found which is similar to the study by Toplisky Y etal[14](8.9%).

In our study,5.98% cases of left ventricular dysfunction TR were found which is some what lower as compared to the study by Toplisky Y etal[14](12.2%).

In our study ,25.7% cases were of idiopathic TR(PASP<50mmhg)

which is somwhat higher as compared to the study by Toplisky Y etal[14] (12.2%).

CONCLUSION:

1203(12.03%)cases of tricuspid regurgitation were found in the present study. Functional tricuspid regurgitation were most commonly found in the present study followed by idiopathic,congenital,LVSD and least effected were organic TR in the present study.

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