

Tricuspid regurgitation and adverse fetal outcome

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Objective

To study pattern of Tricuspid regurgitation (TR) and correlation with adverse fetal outcome.

Methods

This is a prospective study done from November 2018 to March 2019. All 57 fetuses with TR were followed up throughout pregnancy and complete outcome. Type of pattern of Tricuspid regurgitation classified as early systolic V, end systolic V, pan systolic V and pan systolic W depending on shape of wave forms. Then outcome of all pregnancies collected with respect to karyotype, postnatal checkup.

Results

Out of 57 fetuses 28(49.1%) has early systolic V pattern of TR, as most common. In this group 4(14.2%) has cardiac defects, 2 (7.1%) had non cardiac defects and 18/28 (64.2%) has normal Live birth. 3/21 known karyotype had aneuploidies. other 7 were terminations and IUD. 10 fetuses had end systolic V pattern of TR with no cardiac and non cardiac defects in this group. In this group 9/10(90%) had normal Live birth and 1 termination. There were 16 fetuses with pan systolic V pattern of TR with 6/16 (37.5%) had cardiac defects and 2/16(12.5%) with non cardiac defects. In this group 6/11 (54.5%) were aneuploidies with 4 terminations, 1 NND. Here 3/16(18.7%) are live births. And 3 fetuses had pan systolic W pattern of TR, with no any defects and 2/3 (66.6%) had normal live births with 1 reduced fetus.

Conclusion

Most common pattern of TR is early systolic V (49.1%). This study suggests pan systolic V patterns are associated with more adverse fetal outcome as 37.5% had cardiac defects and 54.5% with aneuploidies. And end systolic V pattern is most likely associated with good outcome. Our study suggests that pattern of Tricuspid regurgitation could predict possibility of adverse fetal outcome. However this has to be tested in larger study.