Successful Treatment of Infected Intracadiac Thrombi in Adolescents with Recombitant Tissue Plasminogen Activator (tPA)

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Background: Infective endocarditis caused by microbial infection is virtually always fatal if not treated. High dose and long term antibiotic treatment is required to eradicate microorganisms. Surgical removal is indicated in persistent cases or when there is deterioration with embolic phenomenon. Combined treatment with antibiotics and tPa has been reported to be successful in preterm babies and pediatric patients, however there a dearth of data regarding adolescents.

Methods: We describe 4 adolescents who were treated successfully with combined treatment of antibiotic and tPa/ for infective thrombi /endocarditis Results: Four adolescent patients, 3 boys and 1 girl (mean age 13.3 years) were treated. Small perimembranous VSD was detected in 2 patients, a normal heart in the other two who were in different stages of anticancer treatment for lymphoma. All the masses were located in the right heart: 1- tricuspid valve, 2 in the right atrium and one extended from the SVC to RA and to the RV. Resolution of thrombus was achieved following 2-4 days of treatment with Tpa. No side effects were reported.

Conclusion: Recombitant tissue plasminogen activator combined with antibiotic may be used as an initial treatment protocol in adolescents with infective thrombi. We hypothesize that tPA facilitates penetration of antibacterial treatment of infective thrombi which contributes to the success of the treatment