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**Evaluation of risk factors associated with heart valve thrombosis in patients with prosthetic heart valves dysfunction****Hassan Ahangar<sup>1</sup>\*, Feridoun Noohi Bezanjani<sup>2</sup>, Hossein Ali Bassiri<sup>2</sup>, Sepehr Gohari<sup>3</sup>†, Amir Hossein Heydari<sup>3</sup>**<sup>1</sup> Zanjan University of Medical Science, Iran<sup>2</sup> Shahid Rajaie Heart Center, Tehran, Iran<sup>3</sup> Zanjan University of Medical Science, Iran

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**Introduction & Aim:** Thrombotic and thromboembolic events are important causes of mortality and morbidity in patients with prosthetic heart valve. Prosthetic heart valve thrombosis (PVT) incidence is ranging from 0.1% to almost 6% per patient-year in mitral and aortic valves, and up to 20% in tricuspid valve. The aim of this study is to evaluate the factors that may contribute to PVT.

**Method:** This is a descriptive study of all Rajai Heart Centre's patients with prosthetic heart valve malfunction, within a year. According to the echocardiographic (trans-thoracic and trans-esophageal) and fluoroscopic findings, the patients were divided into 2 groups. The first group included patients with thrombosis and the second group included patients without thrombosis. The patients' demographic, clinical and laboratory data recorded in the desired form and then compared with each group.

**Result:** A hundred and forty two (142) patients included in this study. Ninety six (96) patients (66.2%) were female and 48 (33.8%) were men with the mean age of 49.8 and the standard deviation of 13.13. Ninety four (94; 66.2%) of patients diagnosed with thrombosis and 48 (33.8%) patients were without thrombosis. There was no significant correlation between thrombosis and sex, age, season of hospitalization, ESR, blood group and patient's ejection fraction. There was significant correlation between thrombosis and unstable INR, recent infection history, atrial fibrillation, multi-valve replacement, concurrent use of the Warfarin and Aspirin and the presence of proteinuria.

**Conclusion:** Totally, we can say unstable INR was the most important risk factor for PVT and the incidence of thrombosis was lower in patients with regular INR control. Thus, informing and teaching the patients can play a key role in decreasing the incidence of PVT. In addition, according to the higher rates of thrombosis in patients with the history of recent infection especially upper respiratory infection, this factor can be a candidate in prosthetic valve risk assessment and needs further investigations with larger populations.

**Biography**

Fereidoon Noohi Bezanjani has completed his Internship from Mashhad University and Internal Medicine Specialty from Shaheed Beheshty University of Medical Sciences. He has completed cardiology from Shaheed Rajai Cardiovascular Medical Center, Iran University of Medical Sciences, Tehran, Iran. He also has 103 published articles to his credit.

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