

**ABSTRACT**

*Evaluation and comparison of inserting temporary transvenous pacemaker using blind method and 2dimensional echocardiographic guide in hospitalized patients in Ardabil Bu-Ali hospital during 1378-1384*

**Introduction and objective:** Temporary transvenous pacemakers are used in urgent management of patients with severe bradyarrhythmia and unstable hemodynamic state and not responded to drug therapy. Because fluoroscopy is not available in all our centers and in urgent situations, in our center we use 2 methods for inserting temporary transvenous pacemaker, blind and with two-dimensional echocardiographic guide. The goal of this study is to compare these two methods in inserting temporary transvenous pacemaker.

**Methods and materials:** This study is a cross - sectional study. During this study all the patients who required temporary pacemaker entered the study and inserted temporary transvenous pacemaker with one of the methods blind or 2DE for them. The results of two methods compare with each other and for each data average and standard deviation calculated and t-test used for calculation of average and in all of them probable bias below 0.05 % were demonstrate meaningful.

**Results:** 30 patients with indication of inserting pacemaker surveyed in this study which pacemaker used for 46.6 % and 53.3 % of them by using blind and 2DE methods , respectively. Duration for inserting temporary pacemaker for 2DE method was about  $16.2 \pm 4.9$  minutes and for blind method was  $29.5 \pm 11.1$  minutes and in t-test was meaningful ( $p = 0.001$ ). In this study the most common complication of TPM was PVC that was seen 38.5 % in blind group and 17.6 % in 2DE group. Also the percentage of patients with no complication was 38.5 % for blind and 58.8 % in 2DE group and they weren't meaningful in  $\chi^2$ -test. Death ratio was 11.8 % in 2DE group and 23.1 % in blind group. However, this difference in death ratio was seen in two groups but was not statistically meaningful.

**Discussion and conclusion:** Depend of above findings, significant statistical differences was between the duration for inserting temporary pacemaker in 2DE method comparing with blind method. On the other hand, inserting temporary pacemaker with echocardiographic guide also had benefits comparing with the other method. So 2DE method suggested to be the replacement of fluoroscopy.

**Keywords:** Bradyarrhythmia , Temporary transvenous pacemaker, Echocardiography.