Comparison the effect of two types short message service (interactive and non interactive) on anticoagulant adherence valves of patients with prosthetic heart

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Abstract

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Background: One of the major complications of valve replacement, is valve dysfunction which is incidence like thrombolytic complication and systemic embolism. These complications are occurred more in mechanical valves. Therefore, patients should take life-long anticoagulant. Incorrect use of anticoagulant is one of the reason bleeding in patients with mechanical valves.

Method: This study was a clinical trial, performed on 90 eligible patients who referred to Imam Khomeini hospital of Tehran city during three months. Self-report questionnaire was completed with patients and their International Normalized Ratio (INR) levels recorded. Educational leaflets was given to all of the patients, and their phone number was taken and told them how to use the short message service. For control group did not send any message. For non-interactive group, during three months every week four educational messages is sent. For interactive group, in addition educational message, patients had two way communications with the researcher by asking their questions. After three months, all three groups again completed the Self-report questionnaire. Adherence is evaluated with questionnaire and INR levels. Data were analysed by Fisher exact test, \( \chi^2 \), paired T test and Anova.

Results: Results showed that three groups had significant difference in the adherence after three month (\( P<0.001 \)). The mean of adherence in interactive group was higher than the other two groups after intervention. PT and INR between three groups did not significant difference, but in comparison of . PT and INR each group with itself, the interactive group with (\( P<0.001 \)) and non-interactive group with (\( P=0.001 \)) after the intervention, was significant differences.

Conclusion: Learning through short message service, especially the interactive type increase adherence of patients with prosthetic heart valves.

KeyWords: Warfarin, Adherence, Short Message Service, Heart Valve Replacement