

# ***Effect of magnesium in reducing arrhythmias in patients after CABG surgery in Imam Khomeini Hospital of Ardabil***

## ***Abstract***

***Introduction:*** Cardiac arrhythmia after CABG surgery is a common complication of cardiac surgery, which can cause other side effects. The effect of serum levels of magnesium, hypomagnesemia treatment and prophylactic administration of magnesium in the development and prevention of arrhythmias is controversial and there are many different ideas. The aim of this study is to evaluate the therapeutic effects of magnesium in reducing cardiac arrhythmia after CABG surgery

***Materials and methods:*** The clinical trial enrolled 140 patients undergoing CABG. Based on the initial blood levels of magnesium were divided into two groups of Hypo magnesium and normo-magnesium. Hypomagnesium group reach normal blood level of magnesium, with receiving magnesium. Both groups were operated with normal blood levels. After surgery, both groups were randomly divided into two sub-groups and one subgroup received 2 grams of magnesium sulfate and other subgroup received placebo . Sub-groups in the ICU-OH was under observation for 3 days and Arrhythmias were recorded. Data from the all 4 sub-groups were compared with statistical tests and interpret

***The results:*** The results of this study showed that the creation of arrhythmia in any of the sub-groups were not significantly different from each other ( $P > 0.05$ ). there was no significant relationship between blood levels of magnesium and arrhythmia in any days ( $P > 0.05$ ) .

***Conclusions:*** The results of this study showed that the creation of arrhythmia in any of the sub-groups were not significantly different from each other ( $P > 0.05$ ). there was no significant relationship between blood levels of magnesium and arrhythmia in any days ( $P > 0.05$ ) .

***Keywords:*** CABG Surgery , Magnesium, arrhythmia