SUMMARY & CONCLUSIONS

The present study aims at comparing the safety and effectiveness of intravenous magnesium sulfate versus Verapamil in acute conversion of supraventricular tachycadia. The dose used was 0.075 mg / kg for verapamil and 2 gm for magnesium sulfate(over 5 second) then a next dose of either drugs is used if the first dose is ineffective. Direct current shock was used if the drug failed or complications developed .

Every patient was subjected to, medical history , physical examination,ECG to document the arrhythmia , ECG after termination & echocardiography to study left ventricular function was done.

Statistical analysis of the results was performed using student "t" test & paired " t " test , correlation test & chi square test .

The primary comparison was done between verapamil group and Mgso4 group as regards conversion rate , conversion time and the effect of both drugs on blood pressure and heart rate.

- conersion rate : Conversion rate for verapamil was 88.88% and for magnesium sulfate 94.44 % which is statistically insignificant.
- Conversion time : there was highly significant difference in conversion time between verapamil & magnesium(106,66± 21,14seconds) &(29,33± 6 seconds) respectively.

- Heart rate (H.R) and blood pressure (BP) : Both drugs caused significant drop of heart rate .Mgso4 causes significant drop on blood pressure but verapamil causes highly significant drop in blood pressure.

-Side effects : hypotension in three patients with verapamil , with no recorded side effects with magnesium sulfate.