PP095 BOILING BLOOD - COOL DOWN STAT

T. Letcumi¹, R. Rahmat¹

¹Emergency and Trauma Department, Hospital Sultan Ismail

INTRODUCTION

Heat stroke is an acute lifethreatening emergency characterized by elevated body temperature and central nervous system dysfunction. Heat stroke results from exposure to a high environment temperature or from strenuous exercise.

CASE REPORT

Total of 121 army personals participated in strenuous physical exercise with their full armed uniform on. After completed 5KM marathon, seven of them presented with heat exhaustion and one presented with heat stroke. The previously healthy 25 years presented gentleman with old temperature of 41°C and seizure. Patient was managed accordingly ABCD and intubated for ventilation. Aggressive cooling techniques were done. Cloths were removed and draped with cold towel. Ice was slush over the whole body for heat conduction. Fan was put on for evaporation of heat. Cold normal saline was infused via intravenously as well as used for gastric lavage. Patient's blood creatinine kinase was 55 080u/L. He had hemoglobinuria. Aggressive cooling measures allowed this patient to survive despite severely raised serum creatinine and acute kidney injury from rhabdomyolysis. After 11days of hospitalization, his creatinine kinase drops to 918u/L and was discharged well.

DISCUSSION

Although it is generally agreed that rapid, effective cooling increases

survival in heat stroke, there is debate on the optimal cooling method. However, there have been no controlled studies comparing the effects of these various cooling techniques on cooling times and outcome in patient with heat stroke. There are new studies in animals' approach to modulation of heat cytotoxicity, coagulation, and the systemic inflammatory response syndrome (SIRS) which leads to multi organ dysfunction.

CONCLUSION

Prompt and aggressive cooling measures in timely manner allows recovery of multi organ dysfunction thus enhancing patient's prognosis for survival in heat stroke.