SUMMARY

Malignant hyperthermia, which is called the "nightmare" syndrome of anaesthesiologists is an acute-threatening syndrome, it is a subclinical myopathy that is unmasked upon exposure of the potent inhalational anaesthetic agents and succinylcholine skeletal muscle acutely and unexpectedly increases its oxygen consumption and lactate production resulting in greater heat production, respiratory and metabolic acidosis, muscle rigidity, sympathetic stimulation, and increased cellular permeability.

Its exact mechanism is still being debated. The most accepted theory is that MH is caused by an inability to control calcium concentrations within the muscle fibre and that it may involve a generalized alteration in cellular or subcellular membrane permeability. Close monitoring of patients specially in susceptible individuals should be carried on in order to detect M.H.as early as possible and to perform rapid interference to stop the process.

Diagnosis of malignant hyperthermia is based on clinical picture which includes : extraordinary temperature, muscle rigidity,unexplained tachycardia,increase in end-tidal carbon dioxide and unexplained myoglobinuria in the postoperative period.

Laboratory investigations as serum CPK which may be raised, it will be suggestive, if normal it is no indicative and we have to restore to muscle biopsy.

Specific treatment is the action of dantrolene on muscle calcium movements, symptomatic treatment is by reversal of acid-base and temperature change.

Evaluation of affected families is guided by movements of circulating creatine phosphokinase and by analysis of drug -induced contractures in muscle biopsy specimens.

Either general or regional anaesthesia is safe for patients susceptible to M.H,provided that if a general technique is chosen, care is taken to specially prepare the anaesthesia machine and to avoid all anaesthetic trigger agents.

Challenges for the future include identification of the gene or genes responsible for M.H. and eludication of the mechanism that links exposure to the subsequent loss of calcium We hope that continuing research will reveal the answers to many if these mysteries, so that the next generation of anaesthesiologists will consider the description and conquest of M.H. an interesting aspect of anaesthesia history.