RESUSCITATION

INTRODUCTION
SUDDEN CARDIAC DEATH

- Causes unexpected death less than an hour after the onset of symptoms
- Can strike without prior symptoms
- Can happen to ANYONE e.g. footballer Anthony Van Loo
- Claims more than 60,000 lives per year in the UK
- Main cause is arrhythmias
Arrhythmia = Abnormal heart rhythms

SYMPTHETIC NERVES

- The heart is controlled by nerves like the sympathetic nerves which increase heart rate and force of contraction of the heart. They can also increase the development of arrhythmia
- The sympathetic nerves split into a left nerve and a right nerve that run parallel to the spine. These both have different effects on the heart and could therefore have different roles in arrhythmia.

RESULTS

The left nerve requires a smaller current to trigger arrhythmia
The right nerve requires a larger current to trigger arrhythmia

METHODS

- The heart is extracted from an animal model with the sympathetic nerves still intact.
- The heart is perfused with a solution that keeps it alive and beating outside of the body.
- The left and right nerves are stimulated with electrodes.

DISCUSSION

So why is this important?
The data indicates that the left nerve can be used as a target for treatment of arrhythmias.

By surgically cutting the left nerve we can:
- Prevent episodes of arrhythmia
- Reduce risk of sudden cardiac death

REFERENCES


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Surgically cut left nerve