

Syncope and Anaesthesia:

A guide for patients and medical professionals

Syncope

Syncope is a temporary loss of consciousness and posture, commonly described as 'fainting' or 'passing out'. It is usually related to temporary insufficient blood flow to the brain. There are multiple causes of syncope. Some are serious such as cardiac (arrhythmias linked to palpitations and exercise) or neurogenic (stroke). These can be triggered by stimuli such as pain, shock, dehydration or exercise.

Reflex Anoxic Seizures (RAS)

Reflex Anoxic Seizures (RAS) is one type of syncope and is also recognised as paediatric syncope or pallid syncope (due to the associated marked pallor of the skin). RAS occurs mainly in young children but can occur at any age.

RAS is the term used for a particular loss of consciousness which is neither epileptic nor due to cyanotic breath holding, but which rather results from a brief stoppage of the heart through excessive activity of the vagus nerve due to unexpected stimulus such as pain, shock, or fright. Further information of this condition is explained in [STARS RAS information resource](#).

Anaesthesia

There is no reason why a child diagnosed with RAS should not be anaesthetised for a procedure, but special care should be given during general anaesthesia due to triggering of the vagus nerve during intubation.

It is common to find a precipitating cause for syncope and RAS as patients are susceptible when anaesthesia is being induced. This can be prevented by pre-medication with atropine, a drug that increases the heart rate. A more 'gentle' anaesthetic can be given to minimise the drop in blood pressure.

The anaesthetist should be informed that the patient

has syncope or RAS, and that the heart can stop, due to increase in the vagal tone for up to one minute. It is important that this is fully discussed at the surgery pre-assessment appointment, so notes are updated, and the anaesthetic team aware ahead of time. They may require additional tests, such as an ECG, or a letter from the patient's cardiologist.

Spinal and epidural anaesthesia in syncope patients

This form of anaesthetic can be safely administered to syncope patients, but careful management is crucial to prevent vasovagal responses of drop in blood pressure and heart rate. Potential complications can be managed through careful monitoring, preloading with fluids and appropriate medications available.

Pain relief during pregnancy

Syncope is not a contradiction to a mother receiving pain relief in labour in whatever form is felt appropriate. It is important a mother's wishes are discussed with the anaesthetist, midwife and obstetrician ahead of the delivery date and the anaesthetist well briefed prior to administering the epidural. An epidural can cause a drop in blood pressure and precipitate a faint in a mother prone to syncope.

In pregnancy, spinal or epidural anaesthesia can be further complicated by the supine position, which can compress the inferior vena cava (major vein in the abdomen from the uterus and foetus) and reduce venous return, increasing the risk of syncope.

Note for dentists

These guidelines for anaesthesia for syncope and RAS can be followed by dentists for their patients.

Acknowledgments: STARS would like to thank all those who helped in the development and review of this publication. In particular, thanks are given to Prof Richard Sutton and Dr Charlotte D'Souza.