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General Information for anaesthetists

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 serious (related to palpitations or exercise), others not so (pain, dehydration).

Reflex Anoxic Seizures (RAS) are one type of syncope, and are also known as reflex anoxic syncope or pallid syncope (due to the associated marked pallor of the skin).

Reflex Anoxic Seizures (RAS)

RAS is the term used for a particular fit 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. It is a type of syncope as when the heart briefly stops, blood supply to the brain also ceases resulting in the patient losing consciousness.

RAS occurs mainly in young children but can occur at any age. Any unexpected stimulus such as pain, shock, or fright, causes the heart and breathing to stop, the eyes to roll up into the head, the complexion to become deathly white/grey, often blue around the mouth and under the eyes, the jaw to clench and the body to stiffen; sometimes the arms and legs jerk.

After 30 seconds or so, the body relaxes and the heart and breathing resume. One or two minutes later the person may regain consciousness but some individuals can remain unconscious for well over an hour. Upon recovery the person may be very emotional and then fall into a deep sleep for two to three hours and looks extremely pale. RAS attacks may occur several times per day/week/month. The attacks appear to come in batches.

Unfortunately, because of the symptoms, it is known that RAS is often misdiagnosed as temper tantrums, breath holding or epilepsy.

Anaesthesia

- The induction of anaesthesia can result in bradycardia and hypotension. Endotracheal intubation further increases vagal discharge. Therefore, syncope is more likely to occur in susceptible individuals at this time.
- This is often prevented by pre-medication with atropine, a drug which increases the patient's 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 their heart can stop, due to increase in the vagal tone for up to one minute. It is advised that the patient informs the anaesthetist at their surgery pre-assessment appointment so that the anaesthetist is prepared and aware of the patient's condition ahead of time. They may want extra tests performed, such as an ECG, or a letter from the patient's Cardiologist.
- RAS is not a contraindication to anaesthesia, and with normal, careful monitoring, the anaesthetic should cause no problems. If the patient suffers a syncopal episode on induction of anaesthesia, their heart will restart spontaneously.
- The only danger is giving an anaesthetic to a patient in an upright posture; as when their heart has stopped, blood can pool in the legs causing problems when the heart normally restarts. Thus, ALL those with syncope and RAS should be anaesthetised lying down rather than sitting and may have atropine or a similar pre-medication.

Note for dentists

The guidelines on anaesthesia for Syncope and RAS patients can be followed by dentists treating a child diagnosed with RAS.

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