Anaesthesia and Thalidomide-Related Abnormalities

Posted on Wednesday 4th May, 2016

Thalidomide related abnormalities are not common in patients presenting for surgery, and there is limited experience and published guidance. However, patients who experienced thalidomide embryopathy are now ageing, and may require surgery for related or unrelated conditions. The following advice is based on some published material and the clinical experience of both anaesthetists and patients.

Thalidomide embryopathy may cause dysfunction in many organ systems in addition to any apparentphocomelia. Because of this, it is important that pre-operative anaesthetic assessment is undertaken at the earliest possible opportunity after the decision that surgery is required in order to allow time for treatment, where possible, of any intercurrent conditions.

This pre-operative assessment, which should be undertaken by an experienced anaesthetist, should include a full past and present medical history (including anaesthetic history) and clinical examination, with relevant investigations. Options should be discussed with the patients.

Apart from phocomelia, which is variably severe, patients may exhibit cardiovascular and neurological abnormalities. They may have impaired hearing or sight, and suffer from dysplasia of the skull or joints and extreme abrasion of teeth.

Some may be severely anxious about venepuncture or anaesthesia, possibly as a result of previous experience.

Anaesthetic considerations:

- Venous access may be limited and/or very difficult. If necessary, central venous access with ultrasound guidance should be considered.
- It may be difficult to measure blood pressure reliably using non-invasive methods. If necessary, direct arterial blood pressure measurement should be considered.
- Dysplasia of the skull may lead to difficult intubation, or a 'can't intubate, can't ventilate' situation.
- Abrasion of the teeth may increase the risk of dental damage.
- Abnormalities of the spine, including fusion of vertebrae, may lead to limitation of neck movement, and possible difficulties with spinal or epidural anaesthesia.
- Temperature regulation may be impaired, sometimes with massive sweating. Temperature monitoring should be considered.
- Extra care should be taken in intraoperative positioning, since joint dysplasia increases the risk of damage.
- Anaesthesia should be undertaken by experienced personnel, with appropriate dedicated assistance.
- Equipment and facilities to cope with unexpected complications must be readily available.

Dr Anna-Maria Rollin MBE FRCA, Consultant Anaesthetist, February 2016.

References:

Guidelines for the Provision of Anaesthetic Services, chapter 2: anaesthesia services for pre-operative assessment and preparation 2014. The Royal College of Anaesthetists. London 2015.