Risks of dental damage during anaesthesia

MPS

SOUTH AFRICA FACTSHEET

Advice correct as of July 2016

Around one third of all anaesthetic claims relate to dental damage occurring during general anaesthesia. At MPS, we often assist with complaints that have been made – not due to clinical negligence, but where communication errors meant that patients were not aware of the risks of dental damage during anaesthesia. This factsheet looks at how to safely administer anaesthesia and communicate the risks to patients at every stage along the way.

What can cause dental damage?

Various pieces of anaesthetic equipment can cause dental damage, particularly if they are used inappropriately. The following devices are often associated with damage to teeth so should be used with caution:

- **Laryngoscope** – Upper incisors can be damaged if used incorrectly
- **Oropharyngeal airways** – Teeth, crowns and bridgework can be dislodged or damaged if the airway is cleared using some force
- **Jaw clamping** – Use of a jaw clamp during light anaesthesia, particularly when used with an oropharyngeal airway, can put pressure on teeth
- **Bite blocks** can put pressure on teeth when used with a laryngeal mask airway or during oral fibre optic endoscopies
- **Oropharyngeal suction devices** may cause patients to clamp their jaw
- **Dental props/mouth gags** can damage teeth during insertion, removal or when they are moved from one side of the mouth to the other.

Where possible, discuss your choice of equipment with the patient before the procedure takes place. Outline the benefits and risks of each, and check that the patient freely consents to the use of a particular piece of equipment. Record details of this discussion in the medical records.

Who is most at risk?

You should bear in mind that all patients could potentially suffer dental damage during anaesthesia, but the risk is much greater if the patient already has an underlying dental condition. The following groups of patients are most commonly found to be at risk of dental damage during general anaesthesia:

- Children
- The elderly
- Any patients who have:
  - Crowns, veneers, dentures or bridgework
  - Fillings
  - Periodontal disease
  - Protruding upper teeth
  - Isolated teeth
  - Conditions which mean their airway is obstructed.

Before administering the anaesthetic, you should routinely check for loose teeth, brittle veneers and for any signs of disease which could increase the risk of damage occurring during the procedure. If in doubt about any problems, ask the patient to confirm significant events in their dental history to enable you to make an informed judgment on the risks of damage occurring. Be open and honest with the patient, and inform them if you think they are at a high risk of dental damage occurring.

Avoiding problems before the procedure

In all patients undergoing general anaesthesia, you must conduct a thorough check of their dental health and consider the potential for damage. If you consider there to be a high risk of damage, you must inform the patient and make sure they are aware of the potential problems before they sign the consent form for treatment. It may be necessary to defer treatment until dental work is carried out, to avoid the risk of damage to teeth. Doctors should

ensure patients are aware of all options available to them, and remember to always include details of these discussions and any significant findings in their medical records.

Anaesthetising high-risk patients

Anaesthetists may choose not to use oropharyngeal airways when administering anaesthesia to patients at a high risk of suffering dental damage. If it is necessary to create an airway, anaesthetists should consider using a nasopharyngeal airway but bear in mind the risk of nasal haemorrhage that this device carries, particularly in those with bleeding disorders, nasal abnormalities or heavy smokers. A laryngeal mask with bite block may be an alternative option for patients for whom laryngoscopy or endotracheal intubation is not suitable. Tooth guards may be used to protect vulnerable teeth.

The risk of damage to teeth continues during the recovery period with the removal of anaesthetic equipment. Always inform nursing staff of any risks of dental damage for patients when anaesthetic devices are removed, and include a note in the medical records of those most at-risk to ensure continuity of care.

What to do if problems occur

If teeth are broken during the anaesthesia, ensure the fragments are kept; if a tooth becomes completely loose, store it in saline as it may be possible to replace it. It is important to remember to carefully record the details of any adverse incidents in the patient's medical record, as well as the steps you have taken to minimise the damage.

If any anaesthetic equipment does cause damage to the patient, you should ensure the patient receives a full explanation and, if appropriate, an apology. An apology is not necessarily an admission of guilt but it will demonstrate that you regret that the situation has occurred, and can help to avoid the situation escalating to the point of a complaint being made.

Ensure patients are made fully aware of any aftercare that is available to them following the adverse incident, and it may be helpful to advise them to return if further problems persist. Always document any instructions given in the patient's medical records.

Further reading

- Burton JF and Baker AB, Dental damage during anaesthesia and surgery, *Anaesth Intensive Care* (1987)
- Chadwick RG and Lindsay SM, Dental injuries during general anaesthesia, *British Dental Journal* (1996)
- Yasny JS, Perioperative Dental Considerations for the Anesthesiologist, *Perioperative Dental Considerations* Vol. 108, No. 5 (May 2009)

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