

Draping for neck surgery requiring endotracheal tube manipulation

C L DALTON¹, P J CLAMP², G C PORTER³

Departments of Ear, Nose and Throat Surgery, ¹Leighton Hospital, Crewe, ²Gloucestershire Royal Hospital, Gloucester, and ³St Michael's Hospital, Bristol, UK

Abstract

During airway surgery, the anaesthetist may be required to manipulate or withdraw the endotracheal tube. Traditional surgical head drapes often make access to the tube difficult, therefore limiting control of the airway and risking de-sterilisation of the surgical field. We report a new method of draping for major neck operations that permits easy access to the endotracheal tube while maintaining sterility of the operative field.

Key words: Otorhinolaryngologic Surgical Procedures; Tracheostomy; Laryngectomy; Intubation; Intratracheal; Bedding and Linens

Introduction

Surgical draping for head and neck procedures can be difficult because of the need for both anaesthetic and surgical access.^{1–6} Major neck operations often involve head drapes. In cases such as tracheostomy or laryngectomy, the anaesthetist is required to withdraw the endotracheal tube during surgery. When the head drape covers the mouth, access to the endotracheal tube is difficult. This limits control of the endotracheal tube during manipulation and risks the sterility of the operative field.

We report a new technique of draping for major neck operations that permits easy access to the endotracheal tube and maintains operative sterility at all times.

Technique

Following routine skin preparation, the patient's head is enclosed in a head drape that excludes the endotracheal tube. This is facilitated by briefly disconnecting the endotracheal tube from the anaesthetic circuit while the head drape is being applied. The head drape controls the patient's hair and preserves the sterility of the postero-superior surgical field (Figure 1).

A second adhesive drape is then placed at the level of the mandible in order to cover the endotracheal tube and the mouth (Figure 2). This drape preserves the sterility of the antero-superior surgical field.

When the endotracheal tube needs to be manipulated or withdrawn intra-operatively, the second drape can be lifted with ease (Figure 3). This permits easy access to the



FIG. 1

The first head drape is placed cranial to the mouth and excludes the endotracheal tube.



FIG. 2

The second, adhesive head drape is placed across the chin to cover both the mouth and the endotracheal tube.



FIG. 3

The second head drape can be lifted intra-operatively to access the endotracheal tube. The airway can be adjusted and withdrawn at any stage, while maintaining sterility of the operative field.

endotracheal tube and mouth while preserving an aseptic operative field.

Conclusion

Surgical draping for major neck operations can limit the anaesthetist's access to the airway and compromise sterility of the surgical field during endotracheal tube manipulation.

The draping technique we report avoids these problems by separating the anaesthetic and surgical fields while providing ample space for both. We have been using this technique for a number of years and have found it to be highly effective.

References

- 1 Landsman JS, Allora LP. Surgical draping of the nasoendotracheal tube. *J Oral Surg* 1975;**33**:629
- 2 Masud D, Gilbert P. Secure sterile head drape for head and neck surgery. *J Plast Reconstr Aesthet Surg* 2009;**62**:143–4
- 3 Pender JW. Surgical drape support for operations on the neck or upper part of the thorax. *Proc Staff Meet Mayo Clin* 1955;**30**:44
- 4 Richardson HD, Chakravorty RC. Adjunct to draping of head and neck. *AORN J* 1984;**40**:940
- 5 Terz JJ, Brown PW, Lawrence W Jr. The draping of the surgical field for major head and neck surgery. *Am J Surg* 1977;**134**:304–6
- 6 Tuerk M. A technique for draping of the infant for surgery of the head and neck. *Plast Reconstr Surg* 1985;**75**:590–1

Address for correspondence:

Mrs C L Dalton,
Department of Ear, Nose and Throat Surgery,
Leighton Hospital,
Crewe CW1 4QJ, UK

E-mail: clucydalton@doctors.org.uk

Mrs C L Dalton takes responsibility for the integrity of the content of the paper
Competing interests: None declared
