A Method to Facilitate "Nonsticking" of Regular Bipolar Forceps

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Abstract

Electrosurgery using a bipolar cautery is very common, especially in surgical fields with surrounding vital structures. However, the tissue tends to stick to the bipolar forceps due to the heat cautery, which makes the tips stick together. When forceps tips are stuck to the cauterized tissue, surgeons have to spend time separating the tips. Also, when surgeons separate the tips, a cauterized bleeder may rebleed. Some bipolar forceps with nonstick coatings have been developed to reduce the sticking problem. However, for some surgeons or institutes, these nonstick bipolar forceps may be unavailable. The authors describe an easy method to reduce the occurrence of sticking forceps tips if regular bipolar forceps are used.

Keywords
- bipolar
- cautery
- electrosurgery
- forceps
- stick

Introduction

Electrosurgery using a bipolar cautery is very common, especially in surgical fields with surrounding vital structures.[1] However, the tissue tends to stick to the bipolar forceps due to the heat cautery, which makes the tips stick together. When forceps tips are stuck to the cauterized tissue, surgeons have to spend time separating the tips and may even need to clean the cauterized tissue from the tips. Also, when surgeons separate the tips, a cauterized bleeder may rebleed. Therefore, bipolar forceps with nonstick coatings have been developed to reduce the sticking problem. Some bipolar forceps are designed for repeated usage, so they have to be sterilized repeatedly. After frequent usage and sterilization, the surface of the forceps tips could become rough and the elasticity force needed to spread the forceps tips could become weaker. All of these would lead to the sticking problem becoming more severe.[2]

However, for some surgeons or institutes, these nonstick bipolar forceps may be unavailable or the bipolar forceps should be used repeatedly. The authors describe here an easy method to reduce the occurrence of sticking forceps tips if regular bipolar forceps are used.

Technique

This method is to take a folded piece of gauze and place it between the two limbs of the forceps. This would increase the opening force of the two limbs after cauterization (►**Fig. 1**). Also, the gauze will stay between the forceps limbs due to the nongliding tendency of the metal forceps. The thickness of the folded gauze is adjustable to make the surgeon feeling comfortable and to provide an appropriate opening force of the bipolar forceps. Also, there are some alternative solutions, for example sponge and rubber, if they are available.

Use of the bipolar forceps with strong elastic opening force is an alternative. However, the opening force could be too strong, so the surgeons have to use more power to pinch the forceps blade. It may sometimes make them feel uncomfortable and cause their digit joints to become sore. This discomfort could disturb their focus and distract them from the delicate surgery.

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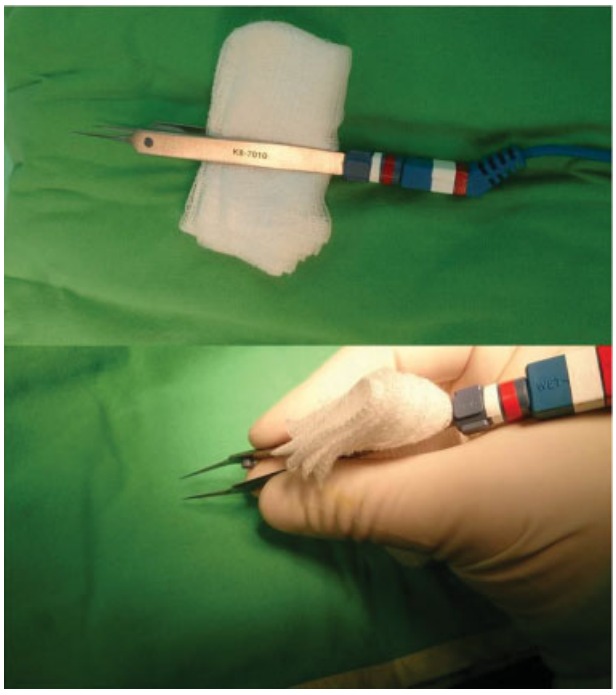

Fig. 1 A piece of folded gauze is placed between the two limbs of the bipolar forceps.

The “nonstick” bipolar forceps are very important to facilitate a smooth surgical course. For surgeons who encounter the problem of sticking forceps tips or the nonsticking bipolar forceps are not available, placing a piece of folded gauze between the forceps limbs can be a fast way and very helpful to resolve the sticking problem.

References

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