Introduction

Gaspare Tagliacozzi is credited for being the creator of modern day plastic surgery in the 16th century. 1 Tagliacozzi’s procedure is well described in his book entitled De Curtorum Chirurgia per Insitionem (1597). In the past five hundred years, his namesake procedure for nasal reconstruction has largely been replaced by new techniques with less morbidity. His process involved partially cutting a flap of skin from the upper arm, reshaping it into a nose, and then grafting it to the damaged nasal cavity. The patient’s arm would then be held in place using bandages for approximately two weeks while the graft attached itself to the face.

This is a case of an unfortunate 8 year old female who suffered severe burns to her face, scalp, and hands at the age of one while living in Pakistan. She had a large nasal defect secondary to her burn injury and was not a candidate for a rotational forehead flap as a result of severe burns to her forehead and scalp. The decision was made by the surgical team to offer the patient and her family a Tagliacozzi flap nasal reconstruction.

From an anesthetic perspective, in the sixteenth century, Tagliacozzi was believed to use opium soaked towels to help patients tolerate the operation. The modern day anesthetic and airway management for this procedure is not described in the literature.

Anesthetic Management

An inhaled induction was performed with oxygen, nitrous oxide and sevoflurane. Intravenous access was obtained and infusions of propofol 100 mcg/kg/min and dexmedetomidine 0.5 mcg/kg/hr were initiated with intent to maintain spontaneous ventilation. Mask ventilation appeared difficult secondary to the patient’s right arm being attached to her nose causing potential trouble obtaining a seal. Additionally, the patient was wearing a brace on her chest that attached to the mandible, which made neck mobility and mouth opening difficult.

A GlideScope® Cobalt 2.5 blade was placed unconventionally in the left side of the mouth as the traditional approach was obstructed by the patient’s arm position. A Cormack-Lehane Grade 1 view was obtained but the endotracheal tube (ETT) was difficult to direct anteriorly through the vocal cords. The GlideScope® blade was withdrawn and the patient was mask ventilated with a small mask covering the mouth only. The large chest brace was then removed and an assistant supported the right arm to improve access to the airway. A second attempt with a more anterior curve placed on the GlideScope® stylet was successful and the ETT was then secured along the left side of the mouth.

Discussion

Due to limited airway exposure and potential difficulty with mask ventilation, anesthetic management for a patient with a Tagliacozzi flap ideally preserves spontaneous ventilation during anesthetic induction. In addition, placement of a GlideScope® blade along the left side of the mouth is an alternative intubation technique when access to the airway is limited by an upper arm flap.

References