Published online: 2019-12-31

Ideas and Innovation

Easy method of centralized fixation of endotracheal tube in cleft lip and palate surgery

S. P. Bajaj, Navdeep Chavan[1], Arun Sharma[1]

Department of Plastic and Cosmetic Surgery, [1]Department of Plastic Surgery, Jaipur Golden Hospital, Rohini, Delhi, India

Address for correspondence: Dr. Navdeep Chavan, Consultant, Department of Plastic Surgery, Room Number-227, 2nd Floor, Jaipur Golden Hospital, 2-Industrial Area Sec-3, Rohini, New Delhi-85, India. E-mail: doctornavdeep@gmail.com

ABSTRACT

As we all know that fixation of endotracheal tube is very important aspect in cleft palate and maxillofacial surgery. During cleft palate and oral surgery various methods of fixation and modified tubes are deviced to make surgery safer and ergonomically better. Our method consist of 3 point fixation of tube (RAE) with dynaplast,which is freely available, cheap and good Adhesive quality. Dynaplast divided into 3 phalanges (one central and two lateral) and one portion undivided as central limb. This undivided central limb is fixed in centre of chin and other 3 phalanges wrap around tube on either side. This fixation totally takes away any lateral movements of tube. this method can be used with any tube (RAE/ Oxford/Flexometallic). Our method is described for its simplicity, ease and convinence and result which impart universally similar results with all different members of our anesthetist team.

KEY WORDS

Dynaplast, tube fixation in cleft lip and palate/ maxillofacial surgery,3 point fixation

INTRODUCTION

Tongue occupies a big portion of mouth; in case of cleft palate operation, this tongue is kept in center along with centrally placed tube, so that enough space is available for performing palate surgery without tongue coming in between. Centrally placed tube is must so that tongue does not move laterally. This is more often difficult; invariably one has to struggle during application of mouth gag.[1,2] We have overcome this problem by devising a technique which is simple, easy and uniformly fit the tube without lateral movements.

Access this article online

Quick Response Code:

Website: www.ijps.org

DOI: 10.4103/0970-0358.96615

METHOD

Method consists of tube fixation using an adhesive Elastoplasts (Dynaplast) of 2" breadth and 4" in length. This adhesive Elastoplasts (Dynaplast) is divided in three phalanges [Figure 1] of approximate 1.5 cm of 2 each and central limb of 2 cm. This division is made up to 2.5" and 1.5" is kept undivided. Undivided 1.5" is fixed in the center of lower lip [Figure 2] (from chin up to lower lip vermilion) and lateral phalanges are allowed to go laterally on either side below the angle of lip [Figure 3]. This allows central slip to remain firmly in the center of lip and firmly places central lip fix tube in the center during palate surgery [Figure 4]. This fixation totally takes away any lateral movements of tube and when mouth gag is applied either with RAE and Oxford or flexo-metallic tube completely fixes tube in centre [Figure 5 and 6]. Application of mouth gag after this fixation is very easy with centralization of tongue, preventing any

Figure 1: Elastoplast strip divided into 3 phalanges

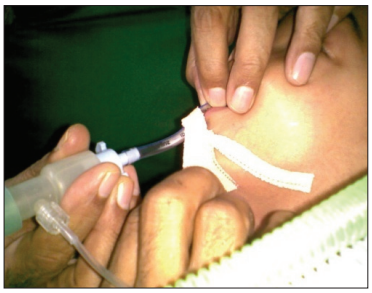

Figure 2: Central undivided limb fixed

Figure 3: Fixation of lateral phalanges

Figure 4: Tube fully secure

Figure 5: Final picture front view

Figure 6: Lateral view

movements of tongue in lateral direction.

This method differs from conventional fixation where single strip (point) is used to fix tube leading to invariable movement of tube on either side away from center, because it is unable to fix the lower lip. Our method fixes lip and central zone and keeps the tube properly in position. We are using this method for more than 3 years now and it has taken away all the difficulties previously encountered from single point fixation in which tube invariably moves either side and one has to struggle to keep tube in center while applying mouth gag.

Method is described for its simplicity, ease and convenience and result which impart universally similar results with all different members of our anesthetist team.

REFERENCES

1. Roopchand R, Roopnarine singh S, Ramsewak S. Instability of tracheal tube in neonates: A postmortem study. Anesthesia 1989;44:107-9.
2. Brown MS. Prevention of accidental extubation in neonates. Amr. J. Dis. Child 1988;142:1240-3.

How to cite this article: Bajaj SP, Chavan N, Sharma A. Easy method of centralized fixation of endotracheal tube in cleft lip and palate surgery. Indian J Plast Surg 2012;45:138-9.

Source of Support: Nil, **Conflict of Interest:** None declared.