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Short Communication

The versatility of spandex photographic retractor for transoral surgical procedures

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ABSTRACT

The trend toward transoral access, be it for pathology or facial cosmetic surgery, has become increasingly popular over the last two decades with facial incisions being used more and more sporadically than otherwise. Transoral access because of its inherent limitations, retraction of the oral and perioral tissues without inducing physical or thermal injury makes it a daunting task for the operating surgeon. The use of conventional retractors in conjunction with surgical instruments can lead to inadvertent injury to the perioral tissues resulting in untoward postoperative sequelae leading to patient discomfort and delayed recovery. This article elucidates the versatility of a simple photographic retractor (spandex) as a useful adjunctive tool in the retraction and protection of the perioral tissues for almost all transoral surgical procedures.

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1. Introduction

Advancements in surgical armamentarium and techniques with the dawn of hidden incisions and transoral access in diverse maxillofacial procedures for exposure of surgical sites have led to the advent of cumbersome retraction and surgical devices. This renders adequate retraction with minimal damage to the oral tissues a daunting task for the operating surgeon. Conventional retractors such as Langenbecks, Killners, malleables, etc. may also prove useful for oral retraction but not without inadvertent compression injury to the lips and commissures. To avoid soft tissue injury to the perioral tissues, various methods such as the use of double-layered vaseline gauze, polyethylene membrane, etc. have been

employed without desirable advantages.^{1–3} However, there is a paucity of literature with regard to satisfactory methods available for optimal retraction and soft tissue protection from untoward and inadvertent iatrogenic damage to soft tissues.

Iatrogenic thermal damage and traumatic mucosal lacerations of the oral mucosa, particularly the lips and the oral commissures is an inevitable consequence of transoral surgical procedures. The surgeon in the pursuit of executing and completing the procedure detracts from the issue of protecting the perioral tissues from any form of injury. This is relegated to unavailability of an ideal retractor to protect the oral soft tissues during surgery. This paper deals with the use of a simple spandex photographic retractor for transoral surgical procedures to avoid iatrogenic damage to the soft tissue in and around the oral cavity.

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Fig. 1 – Spandex photographic retractor in situ.

Fig. 2 – Intraoperative view.

2. Technique

Following the preparation of the patient for any transoral procedure, a translucent flexible spandex photographic retractor is introduced as shown in Fig. 1. The connecting bar of the retractor may be positioned superiorly or inferiorly depending on the areas of retraction required in the maxilla or the mandible. Now, the required oral incisions and the surgical procedures are carried out with the retractor in place as shown in Fig. 2. Additional use of other oral retractors such as the Langenbecks, channel retractors, malleables, etc. may be used in conjunction with the spandex retractor, thus facilitating optimal and unobtrusive exposure of the surgical site with excellent protection of the oral stoma (Fig. 2). The closure of the oral incisions is also carried out with the retractor in situ.

3. Discussion

Inadvertent iatrogenic injury to the lips, commissures and oral mucosa is not an uncommon sequela in transoral surgical procedures. This may be attributed to a diverse range of

unyielding retractors employed for transoral surgery. Also, overenthusiastic retraction for better exposure of the surgical site detracts the surgeon and the assistant from paying attention to the tissues being retracted. In addition, the use of surgical hand pieces and surgical diathermy could result in potential thermal damage to the lip and commissure areas since the attention is being focussed mainly on the primary surgical site by the operating surgeon and the assistant. The handles on either side of the retractor also aid in excellent lateral retraction of the commissure and cheek, thus minimizing the use of additional retractors. The spandex retractor owing to its design not only provides excellent protection, its tension and flexibility also facilitate good retraction of both the lips and the commissures, thus saving additional hands required for retraction.

Clinically, this device may be employed in almost every oral surgical procedure from third molar surgery to major reconstructive surgical procedures that require transoral surgical access except in clinical conditions such as oral submucous fibrosis and in situations where lip split techniques are employed. The spandex retractor provides excellent

Fig. 3 – Preoperative view of the perioral tissues.

Fig. 4 – Postoperative view of the perioral tissues.

retraction and protection of the perioral tissues (Figs. 3 and 4), thus making it a useful tool and in our opinion an indispensable device in the armamentarium of a maxillofacial surgeon.

Authors' contribution

David P. Tauro was the operating surgeon and involved in design of the study and drafting the article. Uday Kiran Uppada involved in data acquisition and drafting of article.

Ethical statement

Patient's consent was obtained for this study.

Conflicts of interest

The authors have none to declare.

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