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# Tagging of stainless steel crown – An innovative technique!!!



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ABSTRACT

There remains a perpetual fear of aspiration or swallowing of stainless steel or cast crown during trial or adaptation. This is more if the patient is a child or handicapped. This article presents a simple and innovative technique to tag stainless steel/cast crown using materials easily available in our clinic.

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Ingestion of foreign body is a common clinical problem in children. Ingestion still occurs in adults but is most of the times accidental or in psychiatric patients. In the dental operatory, the ingested foreign body may include teeth, restorations, restorative materials, instruments, rubber dam clamps, gauze packs, and so forth.[1–3] Grossman determined that 87% of the ingested foreign bodies entered the gastrointestinal tract, and 13% entered the respiratory tract.[4] Most of the foreign bodies that entered the gastrointestinal tract passes without causing any damage, i.e., asymptomatic. Only 10–20% cases require non-surgical intervention, and 1% or less requires surgical removal.[5]

Inability to retrieve accidentally swallowed/aspirated dental material/instrument is primary cause of anxiety and concern to the operator. This risk is even more if patient is a small child, is sedated or a handicapped individual.

Embedding an anchoring device onto the primary design of the dental instrument is most ideal. For example a vent in an endodontic hand instrument or a rubber dam clamps. These vents can serve to secure a dental floss that would aid in easy retrieval in case of accidental swallow or aspiration of the instrument.

The dental crown (stainless steel or cast metal crown) has been elusive, when it comes to anchoring or secures tagging. Various methods to secure dental floss to crown have been attempted. Few have used cyanoacrylate glue (*feviquik, instant glue, Eastman 910*), Epoxy resins to bond dental floss to crown, but their bond strength has never been verified and is questionable and therefore, not a fool proof solution.

Securing the crown with floss is even more important when it is being delivered to special children, sedated children, handicapped individuals or those being treated under general anaesthesia. As they have diminished protective laryngeal reflexes.

This paper presents an innovative technique to tag stainless steel crown, which can be easily applied and removed.

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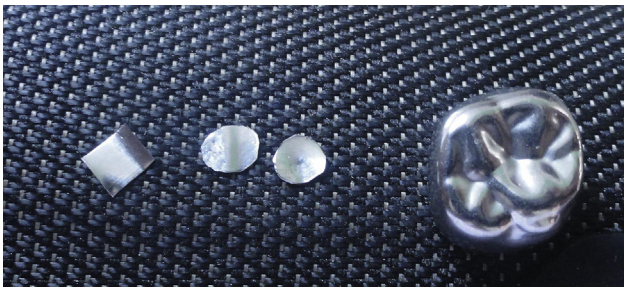


**Fig. 1 – Trimmed orthodontic band material.**

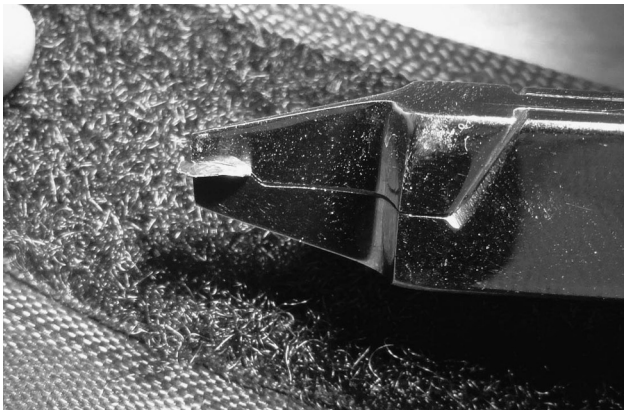


**Fig. 2 – Contouring of anchor.**

## 1. Armamentarium

Orthodontic band material, crown crimping and contouring plier, orthodontic welder, dental floss, and stainless steel crown polishing kit.

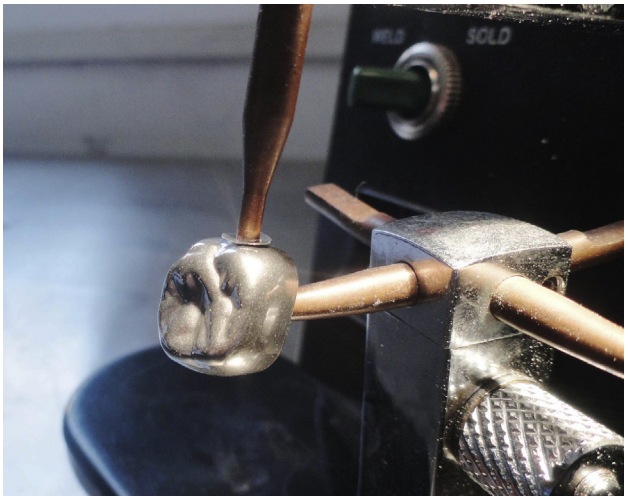



**Fig. 3 – Spot welding of anchor to stainless steel crown.**



**Fig. 4 – Anchor in place.**

## 2. Procedure

Band material of 2 mm × 2 mm is cut [Fig. 1]. Its sharp edges are rounded using a scissors, smoothened using green stone and contoured using contouring pliers [Fig. 2] to create an ***anchor***. This anchor is spot welded to largest buccal or palatal surface of stainless steel crown [Fig. 3]. The position of the anchor should not interfere with crown adaptation. Hence it is recommended that the buccal surface of mandibular crown and palatal surface of maxillary crown be used. The middle third of crown is the zone requiring least manipulation; hence it is perfect site for anchor placement [Fig. 4]. Single spot welding is sufficient; multiple welding may damage the crown surface. A dental floss of 10–12 inches is secured to anchor [Fig. 5]. Anchor is verified by pulling the floss multiple times prior to intra-oral use.

After the crown has been adapted to the tooth as per operator's satisfaction, just prior to crown cementation, the anchor can be removed by grinding using a green stone. Polishing is done using the standard crown finishing and polishing kit [Fig. 6].

## 3. Conclusion

This technique uses armamentarium easily available in dental practice. Secured floss helps in easy retrieval in case the crown is swallowed/aspirated. Mandatory tagging of crown prior to use can definitely reduce the incidence of accidental swallow or aspiration.




**Fig. 5 – Before and after tagging with floss.**




**Fig. 6 – After removal of anchor and polishing.**

## Conflicts of interest

All authors have none to declare.

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