



Technical Report

A Simplified Approach for Beading and Boxing Elastomeric Impressions

Manoharan PS¹, Anand V², Arjun S³

ABSTRACT

Beading and Boxing is performed to obtain the artistic portion of the cast. In an elastomeric impression for edentulous ridges, creation of a land area and base is crucial for a master cast. The techniques mentioned in the literature use plaster, plaster pumice mix, wax sheets, caulking compound, denture flask and play dough. Those techniques have their disadvantages being cumbersome, clumsy, time consuming and demand for skill and dexterity. Presented below is a modification of an existing technique by Vyas A et al [2011]. The new technique does not need addition of extra wax for securing the beading wax. It is rapid, neat and easy to learn and can be adopted for zinc-oxide eugenol impressions.

Key Words: beading, boxing, edentulous-impressions, land-area, artistic-portion of cast.

Beading and Boxing is performed to develop the artistic portion of the cast. Most of the techniques mentioned in the past are time consuming, require additional skill and dexterity.¹ Some need additional time to finish the cast and are clumsy which make the simplicity of the technique questionable². Other methods in the literature

Figure 1: Application of cyanoacrylate adhesive



have used materials such as wax¹, plaster and pumice², caulking compound and paddle³, fast setting irreversible hydrocolloid⁴, denture flasks⁵, Solvite material [H J Bosworth Co., Chicago, III]⁶ and plaster.⁷ Presented below is a simple technique that can be followed for elastomeric impression materials. This is a modification of an existing technique⁸ that uses beading and boxing wax. The modified technique involves a neat and rapid method using elastomer putty to develop the land and base of the cast, which can be accomplished in 5- 8 minutes with minimal or no use of wax.

THE PROCEDURE

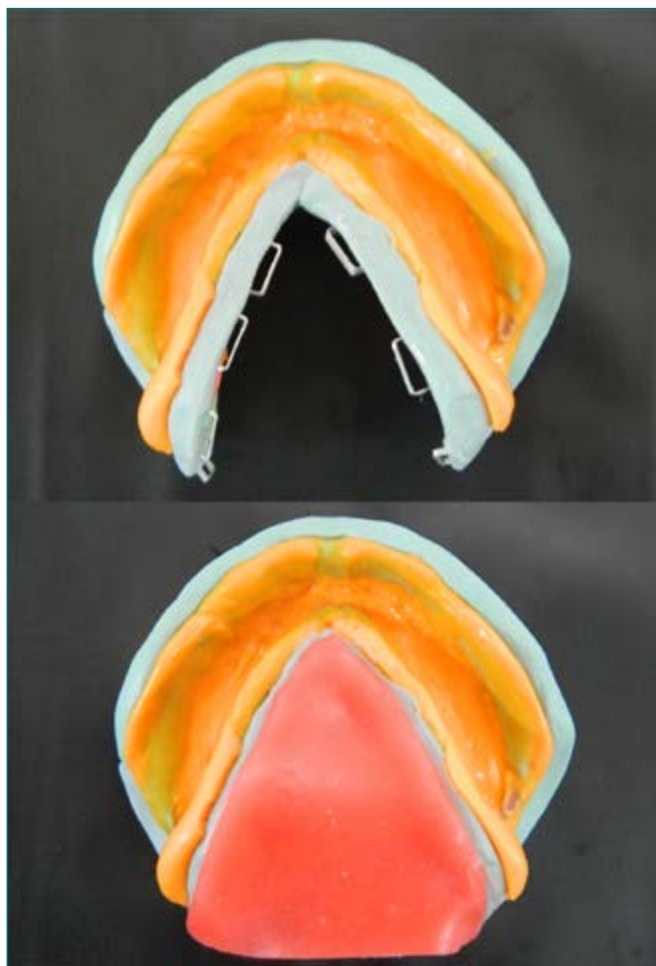
1. Apply cyanoacrylate adhesive or tray adhesive, on the surface of the elastomeric impression material 2-3mm below the sulcus depth, where beading has to be carried out. Care is taken, so that the adhesive does not contact with the skin or gloves. Wait for 10 -15 seconds.
2. Mix the base and catalyst of the putty elastomer and adapt it over the adhesive with thumb, index and the forefinger as shown in the figure, so that the width of the beaded area is approximately 3-4mm. Adhesive application and putty beading can be done in sections along the border of the impression as shown in Figure 2

Figure 2: Adaptation of putty over the adhesive



3. After beading the entire border of the maxillary and mandibular impression, the tongue space of the mandibular impression is closed by using a used radiographic film or transparency sheet, which is cut according to the space and adhered using the cyanoacrylate adhesive. If radiographic film is difficult to adapt you can use stapler pins over the putty and use utility wax, modeling wax for the tongue space as it adapts well to the curves as shown in the Figure 3.

Figure 3: Tongue space closure



4. The edges of the putty beading can be trimmed to refine using a sharp scalpel.
5. Cut a radiographic film or a transparency sheet for the desired length to be used for the boxing of the impression. Apply the above mentioned adhesive along the beaded edges and adapt the boxing film or sheet and hold it under pressure with rubber bands till it is adhered as shown in Figure 4.

Figure 4: Boxing with radiographic film



6. The same method can also be adopted for zinc-oxide eugenol impression.
7. Now the beaded and boxed impression is ready for pouring the cast. Note that the retrieved casts require minimal finishing as shown in Figure 5.

Figure 5: Master casts



References

1. Hickey JC, Zarb CA, Bolender CL. Boucher's Prosthodontic Treatment for Edentulous Patients. 9th ed. St. Louis: CV Mosby, 1985:218-20.
2. Dexter W S, Moore D J. A new, clean and inexpensive boxing procedure: J Prosthet Dent 1995;73:496-8.
3. Rudd KD, Morrow RM, Seldman EE. Dental Laboratory Procedures. Vol I: Complete Dentures. 2nd ed. St. Louis: CV Mosby, 1986: 57-79.
4. Stipho HD. Boxing Impressions with Irreversible Hydrocolloids. J Prosthet Dent 1985;53:740-1.
5. Powter RG, Hope M. A Method of Boxing Impressions: J Prosthet Dent 1981;45(2):224-5.
6. Groove HF, Broering LF. Impression Boxing and Cast Pouring: J Prosthet Dent 1980;43:112-15.
7. Bolouri A, Hilger TG, Gowrylok MD. Boxing Impressions. J Prosthet Dent 1975;33:692-5.
8. Vyas A, Maru K, Bali S K, Jain S, Shukla J, Kataria N. A New Simplified Beading and Boxing Procedure for Elastic Impression: J Indian Prosthodont Soc . 2011;11(1):52-54.

Address of Correspondence

Manoharan P S,
Professor and Head, Department of Prosthodontics
and Crown & Bridge,
Indira Gandhi Institute of Dental Sciences,
Email id: manodent_2000@yahoo.com
Phone no: +91 9865019673

Authors

¹Professor and Head, Department of Prosthodontics
and Crown & Bridge, Indira Gandhi Institute of Dental
Sciences.

^{2,3}Post Graduates, Department of Prosthodontics and
Crown & Bridge, Indira Gandhi Institute of Dental
Sciences.

How to cite this article : Manoharan P S, Anand V, Arjun S. A Simplified Approach for Beading and Boxing Elastomeric Impressions. Journal of Scientific Dentistry 2018;8(1):13-5

Source of support : Nil, **Conflicts of Interest :** None declared