Lab Note

A predictable procedure for packing denture base resin after fracture of investment material

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INTRODUCTION

Inadvertent fracture of the investment material can be an aggravating experience while processing the dentures (Fig. 1). Fracture most commonly occurs during separation of two halves of the denture flask after the wax has been eliminated. The reasons may be failure to apply separating media between the two pours of the dental stone, incomplete setting of the investment material when the flask is opened, application of excessive forces when the flask is opened and failure to blockout unfavorable undercuts in the cast.[1] As a result packing denture base acrylic resin into the mold becomes difficult and may necessitate the repetition of the clinical procedures. A procedure is described for packing denture base acrylic resin into the denture flask when the cast is intact and investment material is fractured. This technique is time saving and avoids repetition of clinical procedures. However, this technique may not be applicable when the cast cannot be positioned securely to the upper half of the flask even though the cast is intact.

PROCEDURE

1. Remove all traces of investment material from the lower half of the denture flask using a plaster knife (Plaster knife A; Dentaurum, Pforzheim, Germany) and clean the surface.
2. Position the intact cast corresponding to its indentation in the upper half of the flask.
3. Brush a thin layer of tray adhesive (Caulk Tray Adhesive; Dentsply International, Milford, DE, USA) onto the inner surface of the lower half of the denture flask and base of the cast.
4. Dispense equal amounts of putty (ReprosilR Putty vinyl polysiloxane impression material; Dentsply International, Milford, DE, USA) base and catalyst onto a mixing pad using supplied scoops. With clean hands, or wearing non latex gloves, knead material together for approximately 45 seconds until a uniform, streak free color is achieved and apply an even layer onto the lower half of the denture flask (Samit products; New Delhi, India).
5. Close the lower half of the denture flask onto the upper half in a press (Confident dental equipments Ltd.; Bangalore, Karnataka, India) until they are in a close approximation.
6. Allow excess impression material to come out and wait till complete polymerization. Remove the excess material that comes out.
7. Ensure that the cast gets attached to the impression material (Fig. 2).
8. Open the flask and pack with heat- polymerizing denture base acrylic resin.

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Fig 1: Fracture of investment material after elimination of wax

Fig 2: Cast attached to the putty consistency impression material

CONCLUSION

A technique for packing denture base acrylic resin after the fracture of the investment material is described. The technique is simple, quick, time saving and eliminates the repetition of the clinical procedure.

REFERENCES

1. Rudd KD. Processing complete dentures. Dent Clin North Am1996; 40:121-129.