Use of a modified rubber dam technique when bonding resin-retained fixed partial dentures

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The use of rubber dam isolation is an important step when bonding a resin-retained fixed partial denture (FPD). Failure to use a rubber dam may contribute to failure of the resin-retained FPD. Without a rubber dam, moisture control is difficult and the etched enamel surfaces may be contaminated by moisture from the patient's breath.

A rubber dam placed with conventional techniques must be stretched over the pontic tissue. This adaptation inhibits passive seating of the FPD and can prevent complete seating in the area of the pontic. This article describes a modified rubber dam technique that isolates the teeth, yet allows complete and passive seating of the resin-retained FPD during cementation.

PROCEDURE
1. Anesthetize with topical anesthetic the soft tissues around the teeth to be clamped.
2. Stretch a 5 X 5 inch sheet of medium thickness rubber dam on a rubber dam frame.
3. Using a technique described by Croll, punch a series of adjoining holes in the rubber dam so that a continuous perforation extends from one clamp to the other clamp without excessive tension (Fig. 1).
4. Place the rubber dam clamps on the teeth adjacent to the FPD. With the rubber dam stretched on the frame, slip the rubber dam over the retainers and under the buccal and lingual wings of the clamps.
5. If necessary, insert cotton rolls under the rubber dam buccally or lingually for added moisture control.

The abutment teeth are now isolated and are ready to be etched. The FPD can be bonded without resistance from the rubber dam in the pontic area (Figs. 1 and 2).

After the bonding material has set, the incisal seating hooks on the abutment teeth are removed by using a high-speed drill with a copious amount of water spray to keep the framework cool. The rubber dam is then removed.

REFERENCES

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