



Figure 16. Advancement of the Herbst appliance. Heavy wire cutters are used to crimp the tubing sleeves on the mandibular plunger.

Discontinuance of Herbst Appliance Therapy

It has been our usual practice to leave the Herbst appliance in place five to six months after the last activation. This recommendation concerning the time interval is made solely on the basis of clinical observation, not as a result of comparative clinical trials. The total treatment time with the Herbst appliance in place is usually 9-12 months. This average treatment interval is somewhat longer than that advocated by those clinicians who recommend an initial incisal end-to-end bite advancement.

If the maxillary appliance has been bonded, then the splint is removed with a pair of anterior bond-removing pliers with a nylon tip on one side of the pliers and a sharp edge on the other, as for example, a 349 anterior bracket removing plier (ETM Corporation, Monrovia, CA). Usually after the acrylic seal is broken, the appliance can be removed, especially if the occlusal surfaces of the posterior teeth have not been etched during the bonding procedure. If undercuts prevent easy appliance removal, the basewire can be cut with a high-speed handpiece before appliance removal is attempted. In addition, the use of a local anesthetic in the upper premolar region also can eliminate most discomfort felt by the patient during appliance removal. The bond-removing plier is placed on the appliance with the sharp edge of the plier at the margin. A rocking motion then can be used to dislodge the appliance on one side. This procedure is repeated on the other side until the maxillary part of the bonded Herbst appliance is loosened fully.

If the appliance is removed during the late mixed dentition, loose deciduous teeth may be extracted during the debonding process. The use of local anesthetic is recommended in these instances.

FINAL REMARKS

This chapter has described the clinical management of one variation in Herbst appliance design, the acrylic splint Herbst. The Herbst appliance has been shown to be a device capable of producing rapid skeletodental changes leading to the correction of a Class II malocclusion. Pancherz (1982), as well as our own group (McNamara *et al.*, 1990), has shown that both skeletal and dental adaptations are produced with this type of appliance.