MODIFICATIONS OF THE GOLDMAN TECHNIQUE FOR CONTACT TESTING OF THE BUCCAL MUCOSA1, 2

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The occurrence of mucosal reactions due to penicillin—both from topical application and from oral administration has necessitated increasing use of contact tests of the buccal mucosa. Goldman and Goldman (1) originally described the technique of mucous membrane contact testing in stomatitis venenata. Later some preliminary experiences with penicillin were reported by Goldman and Farrington (2). The applicability of these techniques hold out the prospect of considerable saving of time, effort and discomfort from the use of penicillin orally.

Fig. 1. Various Methods for Contact Testing of the Buccal Mucosa

(A) Soft black rubber cup with dental floss attachment as used originally by Goldman and Goldman. Small quantities of the material to be tested are placed on cotton which is secured to the cup with colloidion. The cup is tied in place when fixation is desired.

(B) A method applicable to patients with false dentures showing the base of the testing cup cemented to the dental plate with colloidion.

(C) Testing cup fashioned from a tightly rolled, rubber finger cot and tied to a small button with a short strand of dental floss (not shown in the photograph).

Certain technical difficulties were encountered in clinical trials of contact testing of the buccal mucosa in patients of varying age and with different types of dental conditions. It was obvious that in patients with artificial dentures the original technique of Goldman and Goldman (fig. 1 A) could not be used. For these patients, a convenient modification consists of cementing the base of a small

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Fig. 2. Photograph of Dental Plate with Testing Cup Attached in Position

Fig. 3. Photograph of a 7-year-old Child Showing the Testing Cup, Fashioned from a Rubber Finger Cot, in Place

Fixation is maintained by inserting between the teeth the short strand of dental floss connecting the base of the cup to a small button.
rubber cup to a dental plate by means of collodion (fig. 1 B). The latter substance is insoluble in saliva. If the cup is fastened to the plate surface adjacent to the buccal mucosa, contact with penicillin, or any other allergen, implanted on the cup may be maintained for a period of from twenty-four to forty-eight hours (fig. 2). The testing cup is easily removed by simply dissolving the collodion with ether.

Another modification was found applicable to younger patients, to patients with spongy, tender gums, or as an alternate method in all cases where the original technique could be used. In the earlier method it was necessary to tie the dental floss, with which the testing cup was fastened to the teeth, well below the gum line. In children the gingival margin extends relatively high on the teeth making it painful and difficult to tie the anchoring dental floss far enough down on the teeth to make a stable attachment. A second modification, therefore, was devised. A testing cup was fashioned from an ordinary, tightly rolled, rubber finger cot. A short strand of dental floss was sutured through the base of the cup thus formed and tied to a small button (fig. 1 C). This apparatus is easily placed in position by inserting between the teeth the short piece of dental floss connecting the testing cup and the button (fig. 3). It is comfortable and may remain in place safely for from twenty-four to forty-eight hours. The dimensions of the contact area may be varied by increasing or decreasing the size of the testing cup, or small pledgets of cotton of various sizes may be saturated with the allergen and sutured, or fastened with collodion, to the base of the cup adjacent to the buccal mucosa to maintain contact.

CONCLUSIONS

Rubber finger cot fixation and rubber cup adhesion to dentures are reported as additional aids in contact testing techniques for the buccal mucosa.

REFERENCES