An alternative procedure for discrimination of contacts in centric occlusion and lateral excursion

Yuuji Sato, DDS, PhD,[a] Katsunori Koretake, DDS, PhD,[b] and Ryuji Hosokawa, DDS, PhD[c]
Showa University School of Dentistry, Tokyo, and Faculty of Dentistry, Hiroshima University, Hiroshima, Japan

An alternative procedure for discrimination of contacts in centric occlusion and lateral excursion was introduced for eliminating premature contacts in lateral excursion without the alteration of other intercuspations. This procedure involves the application of red paper for the evaluation of lateral excursive contacts and blue paper for centric occlusion holding contacts to provide improved visibility of occlusal contacts. (J Prosthet Dent 2002;88:644-5.)

Articulating paper has been found to be a reliable medium to aid in the detection of occlusal prematurity in prosthetic restorations.[1] It has been suggested that premature contacts in lateral excursion should be eliminated without the alteration of other intercuspations.[2,3] For this purpose, red and blue papers are commonly used to discriminate contacts in centric occlusion (red) and lateral excursion (blue).[4] No valid reason has been given for the relationship between color and jaw position. This article presents a technique that reverses the typical relationship to provide improved visibility of occlusal contacts.

TECHNIQUE

1. Dry the occlusal surface with air. With the use of an articulating paper holder (Articulating Paper Holder; YDM, Tokyo, Japan), place red articulating paper between the teeth on both sides at the same time[3] and instruct the patient to close slowly into centric occlusion.
2. Ensure that the occlusal surfaces are in complete contact with the paper, and then instruct the patient to move his or her jaw laterally. Remove the red articulating paper from between the teeth.
3. With the use of holders, place blue articulating paper between the teeth on both sides at the same time. Repeat the closing procedure, instructing the patient to lightly tap the teeth together several times in centric occlusion.
4. Remove the blue articulating paper from between the teeth, and evaluate the occlusal surface now marked with the 2 colors (Fig. 1).

Some researchers believe that punctured articulating paper can denote the severity of premature or deflecting contacts between maxillary and mandibular teeth.[5,6] With this technique, the patient would repeatedly tap the teeth in centric occlusion to indicate a lack of equilibration between the maxillary and mandibular teeth.[1]

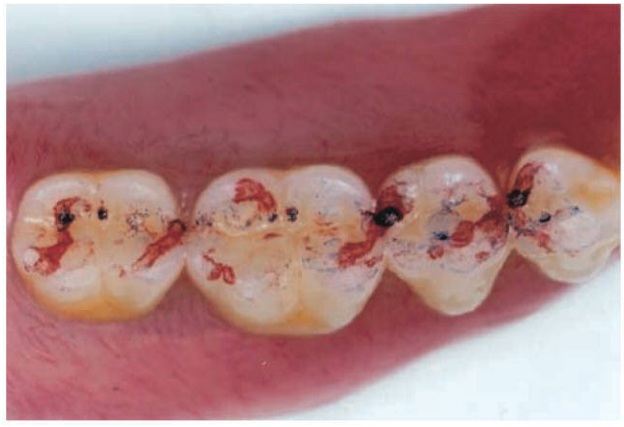

Fig. 1. Marks obtained when red paper was used to evaluate lateral excursive contacts and blue paper to evaluate centric occlusion holding contacts, in that order (suggested technique).

Fig. 2. Marks obtained when blue paper was used to evaluate lateral excursive contacts and red paper to evaluate centric occlusion holding contacts, in that order.

[a]Professor and Chairman, Geriatric Dentistry, Showa University School of Dentistry.
[b]Research Fellow, Department of Removable Prosthodontics, Faculty of Dentistry, Hiroshima University.
[c]Assistant Professor, Department of Removable Prosthodontics, Faculty of Dentistry, Hiroshima University.

Fig. 3. Marks obtained when red paper was used to evaluate centric occlusion holding contacts and blue paper to evaluate lateral excursive contacts, in that order.

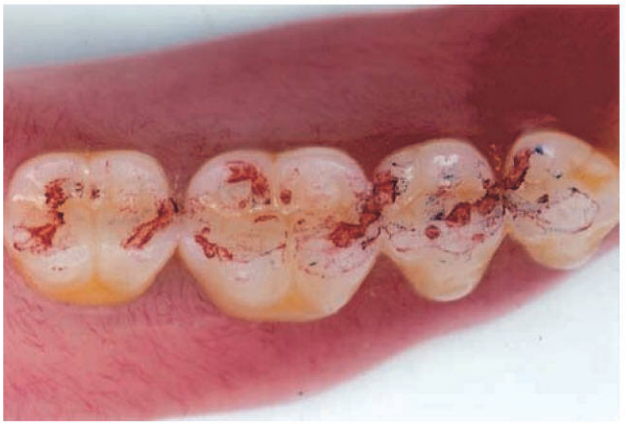

Fig. 4. Marks obtained when blue paper was used to evaluate centric occlusion holding contacts and red paper to evaluate lateral excursive contacts, in that order.

DISCUSSION

This procedure ensures clear visibility of centric occlusion holding contacts (blue) and lateral excursive contacts (red). If the color of the articulating paper is reversed, visibility may be reduced (Fig. 2). If lateral excursive contacts are evaluated later, centric occlusion holding contact marks may disappear (Figs. 3 and 4). Therefore red paper for lateral excursive contacts and blue paper for centric occlusion holding contacts, applied in that order, are recommended.

SUMMARY

A method for detecting occlusal prematurity has been described. This procedure involves the application of red paper for the evaluation of lateral excursive contacts and blue paper for centric occlusion holding contacts. This simple, quick procedure prevents the alteration of centric occlusion holding contacts by eliminating premature contact in lateral occlusion.

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Reprint requests to:
DR YUUJI SATO
DEPARTMENT OF GERIATRIC DENTISTRY
SHOWA UNIVERSITY SCHOOL OF DENTISTRY
2-1-1 KITASENZOKU, OHTA-KU
TOKYO
JAPAN
FAX: 81-3-3787-3971
E-MAIL: sato@senzoku.showa-u.ac.jp

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