

## Clinical Aspects of Dental Metals as Allergen Material in Japan

H. HAMANO \*, T. OHYAMA\*, M. MATSUMURA, H. HANI, H. KITAZAKI,  
T. MASUDA, K. NOKIBA, H. HIROHARA, K. WATANABE and H. MIURA  
(Graduate School, Tokyo Medical and Dental University)

### Purpose:

More than 300 patients newly attended with suspected allergy caused by dental materials to our outpatient allergy clinic of the Dental Hospital at TMDU recently every year. We have been developing allergy diagnosis system and allergen control therapy, especially on dental metal allergy cases. The purpose of this study was to analyze and report clinical features of these patients and cases.

### Method:

The patients were dividing into groups by gender, age, source of patient referral, lesions and metal allergen, developing the allergen control therapy for each patient selecting proper elements and materials and we analyzed the relevance of patch test results to elements of dental metals, the cure rate and the possibility of sensitization by dental alloys.

### Results:

The frequencies of pustulosis palmaris et plantaris(PPP), contact dermatitis and atopic dermatitis were highly ranked among the patients. Positive patch test rates of nickel, mercury and cobalt rose significantly. Reflecting the quantity of general dental use in Japan, the elements mostly used were copper, palladium, gold, zinc and silver.

### Conclusion:

The ratio of PPP lesion caused by dental metal is still low and this indicates the necessity of proper diagnostic procedure such as patch test for these patients with allergic lesions. After allergen control therapy, over 50% patients showed improvement in 1 year follow-up period.