

Short Communication

Severe oral and facial reaction to 6 metals in restorative dentistry

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As well as mercury, other metals can precipitate oral lichenoid reactions, such as gold, palladium and copper (1).

Case Report

A 26-year-old woman had attended her dentist over a number of years for dental caries and undergone extensive dental restoration with amalgam. After each dental treatment, she developed a well-defined facial dermatitis corresponding to the position of the metal retractors used. This was associated with a lichenoid buccal reaction adjacent to the dental amalgam. Subsequent to these oral and facial reactions, several different dental prostheses were used, including gold, but she continued to have similar allergic reactions. She had no previous dermatological history.

She underwent patch testing to the European standard series, dental series, rubber series and latex. After 4 days, there were strong reactions to 1% cobalt chloride, 5% nickel sulfate, 2% copper sulfate and 2% palladium chloride. Weak reactions were seen to 5% mercury and 0.5% gold sodium thiosulfate. All other patch tests, including latex rubber and acrylic filling materials (methyl hydroquinone), were negative.

Discussion

Our patient presents with allergy to 6 metals used in restorative dentistry. Koch & Bahmer (5) report several patients with sensitivity to up to 4 metals and suggested the term "dental restoration metal intolerance syn-

drome". Furthermore, our patient also reacted to the stainless steel instruments that were used (stainless steel contains Si, Mo, P, S, Cr and Ni).

Lichenoid lesions are the commonest allergic reaction caused by dental amalgam, though aphthous ulcers have also been recorded (3). Pang & Freeman reported resolution of lichenoid reactions after dental amalgam replacement (2, 4). Non-metallic amalgam (ceramic) and titanium-aluminium amalgam are now available, though they are expensive. It may therefore be cost-effective to patch test patients suspected of metal intolerance prior to dental restoration (2).

References

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