

Relationship between dental amalgam and oral lichenoid reactions/ lichen planus

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Lichenoid reactions occur in susceptible individuals as a result of local toxic or allergic reactions due to the absorption of released mercury by oral soft tissues. In most patients, resolution of the lesions is noticed after replacement of amalgam restorations with other restorative materials. However the aetiology of lichenoid reactions remains unclear. The aim of this study was to understand the aetiology of lichenoid reactions, its correlation with amalgam restoration and its distribution with age and gender.

The study was conducted on 32 patients referred from the Department of Oral Medicine and Periodontology with a lichenoid reaction adjacent to an amalgam restoration (Group I) and speculatively screening 115 patients who presented to the Department of Restorative Dentistry with amalgam restorations (Group II). Out of the 115 participants in group II, 71 were female and 44 were male. Of these patients 13 female patients (18.3%) and 8 male patients (18.2%) had lichenoid lesions in relation to amalgam restorations. Age distribution of the participants ranged from 15 to 71. A majority of the participants were of the 25-34 age category. Lichenoid reaction was most prevalent (33.3%) in 45-54 age category. Of the patients in Group II, 81.7% did not have any lesions although amalgam restorations were present. The remaining 18.3% had evidence of a lichenoid reaction/lichen planus in the proximity of an amalgam restoration. Of the 32 patients in Group I, the amalgam restorations were replaced with light-cured composites and reviewed in 2 weeks, 1 month, 3 months and 6 months intervals to detect the response. 14 Patients in group I had complete resolution of the lesions with a further 10 showing evidence of reduction of the lesions within the 6-months review period.

The occurrence of lichenoid reactions was seen to increase with the advancing age with a peak at the middle age. Since most patients were relieved of their previous symptoms after replacement of amalgam, amalgam-restorations may act as causative factor for lichenoid lesions and replacement of such restorations could be advocated.