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Association of Periodontal Disease with Osteoporosis/Osteopenia in Chinese Men

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Objectives: The aims of the present study were to investigate the periodontal conditions in Hong Kong Chinese men with osteoporosis or osteopenia, and to determine the possible association of periodontal disease with osteoporosis and osteopenia. **Methods:** 200 community dwelling Chinese males with a mean age of 71.9±3.3 (69-78 yrs) were recruited from the Jockey Club Centre for Osteoporosis Care and Control, The Chinese University of Hong Kong through the "Mr. Os" project. These included 67 subjects with osteoporosis and 66 with osteopenia, and 67 age-matched normal controls. The assessment of osteoporosis and osteopenia was undertaken by the Hong Kong Team of the "Mr. Os" Project. All subjects were interviewed and full-mouth periodontal examination was performed. **Results:** Overall, the subjects presented with mean sites% with dental plaque 84.8±14.7% and bleeding on probing 31.5±20.3%, with no significant difference among the three groups. The mean number of missing teeth was 11.1± 7.7 in osteoporosis subjects, 10.2±7.7 in osteopenia subjects, and 11.2±7.9 in controls. Probing depth (PD) ≥ 5 mm in at least one site was found in 81.3% of subjects. As compared with the controls (11.1%) and osteopenia subjects (14.1%), significantly higher percentage of osteoporosis subjects (29.2%) presented with gingival recession ≥ 5 mm in at least 10% of sites (p<0.05). The subjects with osteoporosis were significantly more likely (OR=3.3) to exhibit gingival recession than the control subjects. **Conclusion:** This study suggests that there might be an association of periodontitis as evidenced by gingival recession with osteoporosis in Hong Kong elderly Chinese men. Supported by The Chinese University of Hong Kong Jockey Club Centre for Osteoporosis Care and Control through the "Mr. Os" project, and in part by The University of Hong Kong and Hong Kong RGC (HKU 7518/05M to LJ).

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