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# ASSOCIATION BETWEEN PERIODONTAL DISEASE AND BREAST CANCER: SYSTEMATIC REVIEW AND META-ANALYSIS

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**Objective:** The present study evaluates a possible association between breast cancer and periodontal disease (PD) as a risk factor. **Materials and Methods:** Ethics approval 3.462.635. This is a systematic review of the literature combined with a meta-analysis. Five databases were searched, and relevant studies published were retrieved and screened. The articles were evaluated and subsequently synthesized using the PRISMA methodology. Odds ratios (OR) with 95% confidence intervals (CI) to assess the association between PD and the risk of breast cancer were calculated. **Results:** Initially, 712 were identified, and after abstract analysis, 14 articles were selected for qualitative evaluation, and 11 presented sufficient data for meta-analysis. We selected cohort studies (prospective and retrospective) and case-control studies. Literature reviews, meta-analyses, and clinical case reports were excluded. Regarding 233,215 women, the meta-analysis showed that PD increases the risk of developing breast cancer, OR=1.619, 95%CI 1.544–1.698, and this positive association was present in seven studies. **Conclusion:** PD increases the risk of breast cancer. Since the quality of the studies was heterogeneous, further studies with improved methods are needed to better quantify the risk.

**Keywords:** Breast Cancer; Epidemiology; Prevention; Periodontics; Gingivitis.