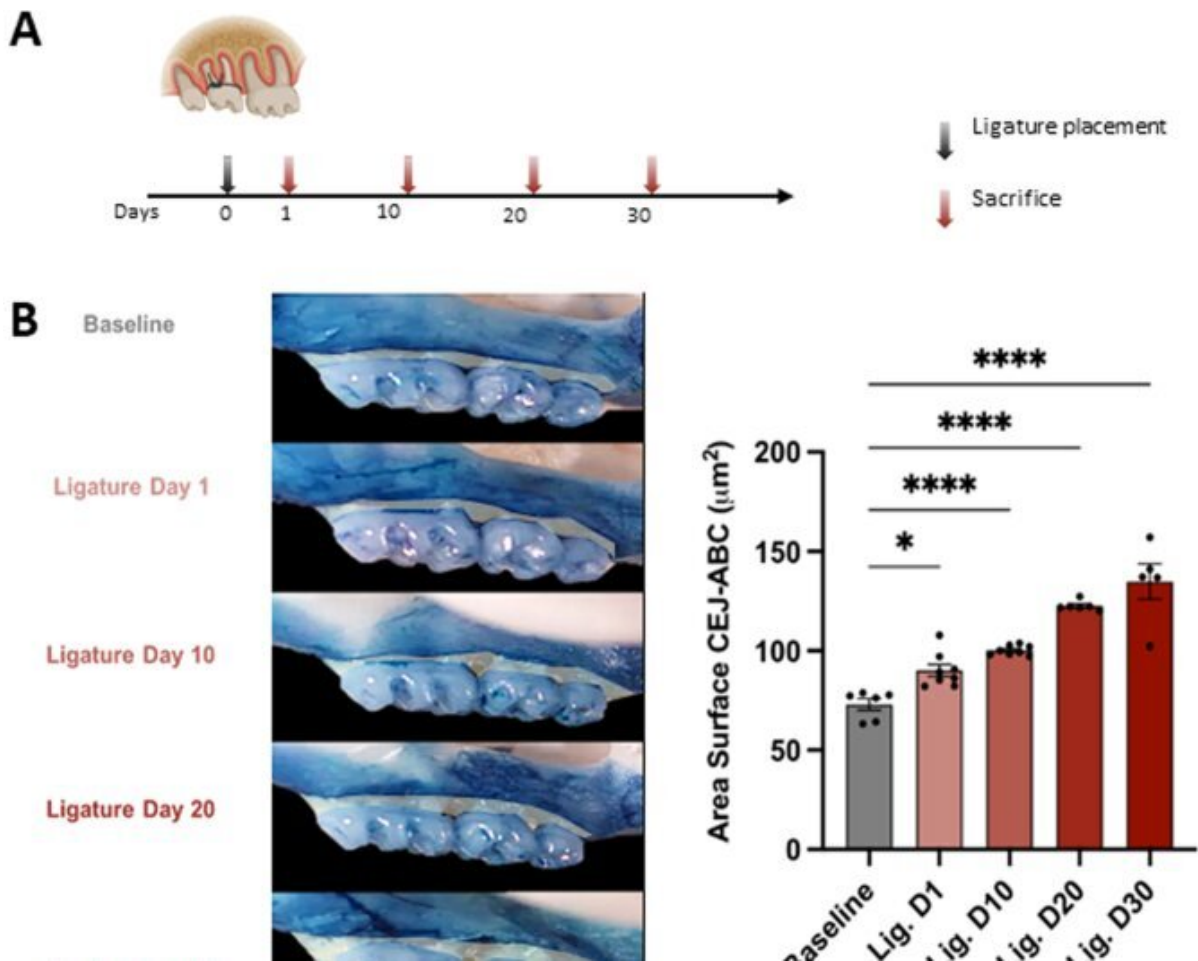


# New study links gum disease to buildup of Alzheimer's plaque formation

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Alveolar bone resorption and mRNA expression levels of RANKL and OPG in periodontal tissues of mice with ligature-induced experimental periodontal disease. A) In vivo experimental design (n = 36, 7–8 mice per group). The baseline group was left untreated, and four groups had ligatures around maxillary right and left second molars for different timepoints corresponding to 1, 10, 20,

and 30 days and then sacrificed. Black arrow: placement of ligatures. Red arrows: sacrifice. B) Left: representative images of the left maxillae from each experimental group (buccal view). Right: quantification of the area between the alveolar bone crest level and the cemento-enamel junction of the three maxillary molars, using Fiji software (ImageJ). C) Levels of mRNA expression of proteins involved in periodontal tissue metabolism RANKL and OPG. The right and left gingival tissue of each mouse were pooled together and represented one sample. Baseline: mice without ligature placement. Lig. D1, D10, D20, and D30: mice with ligature placed for different timepoints corresponding to 1, 10, 20, and 30 days, respectively. (n = 36, 7–8/group, Mean  $\pm$  SEM, ANOVA, \*p

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