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Rate and pattern of Inter-Proximal Dental Attrition

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Although occlusal and interproximal attrition occur because of diverse etiology and present dissimilar features, both progress with age. The objectives of this study were to reveal the rate and pattern of development of interproximal attrition facets (PAF) with age and to compare those with occlusal attrition (OA) changes. Fivehundred and ninety-four teeth were collected from 198 skulls (of adults, 20–71 yr of age). Three mandibular teeth [first premolar (P1), second premolar (P2), and first molar (M1)] were examined for PAF size and OA rate. Interproximal attrition and OA followed similar patterns of development until subjects reached 40–45 yr of age, after which they took different paths: PAF did not increase in size and were not as large as in younger groups, regardless of facet location, whereas OA continued to progress. The PAF changes with age differed between premolars and molars, unlike OA, which presented a similar rate for all teeth studied. Although OA scores presented significantly moderate correlations with age, PAF area size demonstrated low correlations with age. Low, but significant, correlations were found between the rate of OA and that of PAF. However, PAF and OA exhibited different patterns of development with age. Premolars and molars presented dissimilar development of PAF, which is probably caused by a unique attrition pattern in the molar teeth different morphology, and force vectors.