Pulpal and periapical disease in crowned vital teeth: A prospective matched cohort study

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This study aimed to determine the incidence and contributing factors to pulpal and periapical disease in crowned vital teeth. Seventy-three pairs of healthy teeth were included and divided into two groups: 'crowned' and 'untreated' groups. The crowned group was prepared for full coverage crown and no treatment was carried out on the untreated group. Both groups were subjected to clinical and radiographic examination to detect endodontic signs and symptoms pre-operatively and one-week after crown cementation. Electric pulp test was also subjected to both groups, pre-operatively, after tooth preparation and before crown cementation. The incidence of pulpal and periapical disease was 6.8% and 1.4%, respectively, after tooth preparation. Factors associated with pulpal and periapical disease were exposed pulp during tooth preparation and pre-operative bone level <35%. Despite the low incidence, the occurrence of pulpal and periapical disease within a short period is noteworthy. © 2021 Australian Society of Endodontology Inc.

Author keywords
fixed prosthesis; iatrogenic pulp exposure; incidence of pulpal and periapical disease; pre-operative bone level

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