

00331 Incidence of Pulpal Complications Following Diagnosis of Vital Cracked Teeth

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Aims: This retrospective cohort study aimed to gather data on the incidence of pulpal complications arising from cracked teeth that are diagnosed with reversible pulpitis.

Methodology: 184 patients with 199 cracked teeth that were diagnosed with reversible pulpitis and were treated from January 2010 to December 2013 at National Dental Centre, Singapore, were recruited. Cracked teeth were identified by inspection, transillumination and positive bite tests. A diagnosis of reversible pulpitis was made if the tooth had no history of spontaneous pain; positive but non-lingering to cold and an absence of any periapical pathosis. Upon diagnosis, orthodontic bands were cemented and these teeth were referred for crowns. Patients were recalled back at least 3 years after diagnosis except for those patients whose cracked teeth had undergone endodontic treatment or were extracted. Prognostic factors that could influence the incidence of pulpal complications were analysed using multiple logistic regression.

Result: The results showed that 58 out of 199 (29.1%) had pulpal complications. 38/58 (65.5%) were diagnosed as irreversible pulpitis after approximately 1.20 years (437 days) and 20/58 (34.5%) were necrotic pulp after approximately 2.06 years (755.5 days).

Conclusion: In conclusion, 70.9% (141/ 199) cracked teeth with reversible pulpitis remained vital after 3 years. It is essential to brace the cracked tooth, minimise cusp flexion and provide full coverage of the crack from the oral environment. When treated early, these teeth may still reasonably survive for at least 3 years.