SYSTEMIC EFFECTS OF PERIODONTAL LIGAMENT ANAESTHESIA: CLINICAL AND EXPERIMENTAL STUDY.


**ABSTRACT:**

Twenty-five human volunteers were used in this study to examine the systemic effects following periodontal ligament injection (PDL) using a citoject high pressure syringe (Bayer, Leverkusen, W. Germany). (A parallel study was carried out on 5 dogs. The hypothesis that pressure created during intraligamental injection is the causative factor in attaining anaesthesia was tested and evaluated. The results of this study indicated that PDL injection leads to extremely rapid absorption of injected solutions and that epinephrine may cause rapid but transient periods of hypotension and tachycardia that are clinically significant. It was also shown that PDL anaesthesia was not due to intraligamental pressure per se but due to the effect of the anaesthetic agent on sensory nerves.