

Plasma levels of lidocaine and prilocaine after application of Oraqix®, a new intrapocket anesthetic, in patients with advanced periodontitis

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Abstract

Background, aims: Oraqix®, a new non-injection local anesthetic, lidocaine/prilocaine gel 5%, has been developed to provide pain relief in association with periodontal probing and scaling/root planing (SRP). The aim of this open study was to describe the plasma profiles of lidocaine and prilocaine following a single dose of Oraqix® to patients with advanced periodontitis.

Methods: 10 patients with 18 to 28 teeth with pocket depths of at least 4 mm were included. Oraqix® was applied in the pockets around all the teeth in the mouth by means of a blunt applicator. The total dose applied per patient was 0.9 to 3.5g. Directly thereafter all the pockets were probed and 3 teeth subjected to SRP. The mouth was rinsed out with a glass of water 20-27 min after the application of the gel. Blood samples were collected before and up to 90 min after the start of application of Oraqix®.

Results: Peak plasma concentrations of lidocaine (99-266 ng/ml) and prilocaine (46-118 ng/ml) occurred 20-49 min after the start of application. These levels were low compared to those reported to cause initial signs of CNS toxicity (5000-6000 ng/ml). Side-effects were few and mild local effects of short duration.

Discussion: In conclusion, there is a large safety margin with respect to systemic effects following the application of up to 3.5 g Oraqix® in periodontal pockets.