

N-butanol Preserved Maropitant Formulation Increases Local Tolerance in Dogs

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Abstract

Background: The antiemetic maropitant, with metacresol as preservative, is known to cause injection site pain in dogs and cats. Nowadays, generic formulations with different preservatives are authorized. The aim of this study was to compare local pain after subcutaneous injection of two maropitant formulations with different preservatives (metacresol and n-butanol), administered at refrigerated temperature and at room temperature to dogs.

Methods: A four-period, four-sequence, cross-over blinded study was conducted in 32 healthy beagle dogs, administered 1 mg/kg subcutaneously of two maropitant solutions for injection. Pain was evaluated and scored using visual analogue scale (VAS) immediately after dosing and simple descriptive scale (SDS) during two minutes after dosing. In addition to the local pain assessment, the dogs were observed for any other signs before and after the administration of the maropitant injection.

Results: Statistically significant lower VAS scores were observed after treatment with butanol-maropitant than after treatment with metacresol-maropitant. No differences between temperature, periods or sequences of administration were found with either of the formulations. The SDS scores showed significantly lower pain responses after injection of butanol-maropitant than after injection with metacresol-maropitant. No abnormal local reactions were observed.

Conclusion: It was demonstrated that n-butanol preserved maropitant was less painful than metacresol preserved maropitant after subcutaneous injection independent of temperature.

Keywords:

Introduction

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It was demonstrated that n-butanol preserved maropitant was less painful than metacresol preserved maropitant after subcutaneous injection independent of temperature.

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