

A LONG-TERM INJECTABLE ANAESTHESIA WITH A COMBINATION OF MIDAZOLAM, KETAMINE, XYLAZINE AND PROPOFOL IN PIGS

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SUMMARY

A midazolam, ketamine, xylazine and propofol combination was evaluated as a long-term anaesthetic regimen in 18 pigs. The pigs were premedicated with intramuscular injection of atropine sulphate (0.05 mg/kg, b.wt.). Induction of anaesthesia was induced by intramuscular injection of midazolam, ketamine and xylazine at dose rates 1 mg, 4 mg and 2 mg/kg b.wt. respectively. Maintenance of anaesthesia was by intravenous injection of propofol at a dose rate 1 mg/kg b.wt. via a jugular cannula. Booster doses of propofol were given according to the duration of the concomitant surgical procedures. Body temperature, heart and respiratory rates were recorded. Assessment of analgesia, anaesthesia and recovery was by skin and tail clamp stimuli.

The combination of midazolam, ketamine, xylazine and propofol was found very effective and safe for producing long-term anaesthesia in pigs.

INTRODUCTION

The pig is physiologically more related to man than other animals. Therefore, pigs play an important role in human medical and surgical researches as an experimental model (Swindell et al., 1988; Thurmon and Benson, 1993; Lumb and Jones, 1996). Regarding major surgical interferences as in experimental research and training purposes, a long-term anaesthetic regimen was prerequisite. Many analgesic and anaesthetic protocols have been used in pigs with variable effects. Some of these anaesthetic protocols involved xylazine and ketamine (Trim and Gilroy 1985; Boschert et al., 1996), xylazine, ketamine and oxymorphone (Breese and Dodman, 1984), xylazine, and fentanyl (Vigo et al., 1993), telazolone, ketamine and xylazine (Ko et al., 1993) or butrophanol, ketamine and atipamezole (Sakaguchi et al., 1996).