The effects of four different anaesthetic regimes: acepromazine (0.1 mg/kg) pethidine (3.3 mg/kg) and ketamine (10 mg/kg), acepromazine (0.1 mg/kg) pethidine (3.3 mg/kg) and saffan (10 mg/kg), medetomidine (80 μg/kg) and ketamine (5 mg/kg), and medetomidine (80 μg/kg) and saffan (5 mg/kg) were studied in cats. Four experimental groups of five animals each were used in this trial.

The degree and quality of the sedation after premedication and, then, the degree and quality of the anaesthesia were measured in this study. The time to intubation and the quality of this technique were also recorded during the experience. The heart (HR) and respiratory rate (RR), ECG, haemoglobin saturation (HS), systolic arterial blood pressure (SAP), $EtCO_2$, and temperature were monitored every five minutes throughout anaesthesia.

Medetomidine produced a better and deepest sedation than acepromazine/pethidine in all cats. The administration of medetomidine allowed to reduce to 5 mg/kg the required doses to induce anaesthesia for both ketamine and saffan. The duration of the anaesthesia was longer in the medetomidine/saffan group (44.40 ± 5.43 min) followed by the medetomidine/ketamine group (33.80 ± 7.37 min). The results of the sedation in the acepromazine/pethidine groups were not adequate in most of the cases. Anaesthesia was never achieved in the acepromazine/pethidine/ketamine group and the quality of anaesthesia in the acepromazine/pethidine/saffan group was moderate. The combination acepromazine/pethidine did not allow a reduction to 10 mg/kg of the required doses to induce anaesthesia for both agents.

The monitored parameters measured during the experience remained within a safe range. The lower HR and higher SAP were recorded in the cats premedicated with medetomidine. The lowest values of SAP were obtained for the combination acepromazine/pethidine/saffan. Two animals of this group (2/6) showed a mild allergic reaction during the procedure. This adverse effect was observed in one animal (1/6) of the medetomidine/saffan group. The quality of the recovery from anaesthesia was worse in the animals anaesthetized with saffan.

The results of this experience showed that the best anaesthetic effects were obtained with the combination medetomidine/ketamine followed by the combination medetomidine/saffan. Therefore, the use of both protocols could be recommended to carry out elective and short surgical procedures in the cat.