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## Valutation of isoflurane requirements in anesthetized cats treated with continuous rate infusions (CRI) of fentanyl or tramadol or fentanyl-tramadol .

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This study compared effects of fentanyl, tramadol, and fentanyl-tramadol continuous rate infusions (CRIs) on requirements of isoflurane, analgesia and vital signs, in cats undergoing ovaristerectomy. Sixteen adult cats (weighing  $3\pm 2$  kg) were enrolled and allocated in three groups: fentanyl (F), tramadol (T), fentanyl and tramadol FT. Group F was administered with fentanyl bolus  $1\mu\text{gkg}^{-1}$  followed by a continuous intravenous infusion  $5\mu\text{gkg}^{-1}\text{h}^{-1}$ . Group T was administered with tramadol, initial bolus was  $1.5\text{mgkg}^{-1}$  and was then maintained as CRI  $2.6\text{mgkg}^{-1}\text{h}^{-1}$ . Group FT was administered simultaneously with tramadol and fentanyl through two separate venous accesses, the tramadol dose was  $0.8\text{mgkg}^{-1}$  for bolus and  $1.3\text{mgkg}^{-1}\text{hour}^{-1}$  for CRI; fentanyl doses were  $0.5\mu\text{gkg}^{-1}$  for bolus, and  $2.5\mu\text{gkg}^{-1}\text{hour}^{-1}$  for CRI. Anesthesia was performed with dexmedetomidine  $5\mu\text{gkg}^{-1}$  followed by alfaxolone  $7\text{mgkg}^{-1}$  intramuscularly and maintenance with oxygen and isoflurane at variable flows. Heart rate (PR), respiratory rate (RR), systolic arterial pressure (SAP), End-Tidal CO<sub>2</sub> (EtCO<sub>2</sub>), oxygen saturation (SpO<sub>2</sub>), minimum alveolar concentration (MAC) and temperature (T°), were recorded. Analgesia was assessed, by means of a cumulative pain scale, giving scores of percentage changes in vital signs evaluated. Data obtained showed that the FT protocol resulted in good stability of the monitored vital parameters, with a significant reduction in the dosage of the analgesics themselves and in the isoflurane requirement, compared with the other groups. Pain analgesic scores revealed low scores, indicating a good analgesic plan. The combination of fentanyl and tramadol provided good quality analgesia and it was shown to maintain a good anesthetic plan, without side effects. Results demonstrated that fentanyl and tramadol infusion administered in CRI had valid effects in reducing anesthetic needs in cats.

**Keywords:** Analgesia, Fentanyl, Tramadol, Cats, Slow Infusion.

### Biography:

CLAUDIA INTERLANDI is a Researcher at the Department of Veterinary Sciences, University of Messina, and she is mainly engaged in veterinary practice management, welfare of pets, including non-conventional animals, surgical procedures, clinical governance and practice evidence-based veterinary medicine.