‘There are no safe anaesthetic agents; there are no safe anaesthetic procedures; there are only safe anaesthetists’.

Robert H. Smith
EFFECT OF INTRAMUSCULAR LIGNOCAINE INJECTION ON PROPOFOL HYPNOSIS IN DOGS

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**INTRODUCTION**

**anaesthesia**

- Drug Induced
- Reversible
- Dose Dependent
- Depression CNS (Muir et al., 2007)

**Triad of Anaesthesia**

- Hypnosis
- Analgesia
- Muscle relaxation

Mckelvey and Hollinghead, 2003
INTRODUCTION

- Lignocaine
- Propofol
RESEARCH QUESTION

- Can intramuscular injection of lignocaine exhibit synergistic effect or otherwise on propofol hypnosis?
Aim

- the effect of intramuscular lignocaine on propofol hypnosis in dogs.
Materials and Methods

- 7 dogs
- 1.5 – 2.0 years
- 11.95 ± 1.8kg
EXPERIMENTAL DESIGN

Two series of randomised trials

one week interval

normal saline + propofol
Lignocaine + Propofol
Anaesthetic indices
EXPERIMENTAL PROTOCOL

Animals

2mls Normal Saline / 2.0mg/kg lignocaine IM

6mg/kg Propofol IV (7.1mls)

Food, Weight
RESULTS AND DISCUSSION

Anaesthetic indices of an IV induction dose of propofol after IM injection of lignocaine in dogs.

<table>
<thead>
<tr>
<th>Index</th>
<th>SAL/PROP</th>
<th>LIG/PROP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time of intubation (min)</td>
<td>3.4 ±0.9</td>
<td>3.6 ± 0.8*</td>
</tr>
<tr>
<td>Onset of analgesia (min)</td>
<td>-</td>
<td>4.4 ± 2.0*</td>
</tr>
<tr>
<td>Duration of analgesia (min)</td>
<td>-</td>
<td>5.4 ± 1.2*</td>
</tr>
<tr>
<td>Duration of intubation (min)</td>
<td>7.6 ± 2.0</td>
<td>9.8 ± 4.8*</td>
</tr>
<tr>
<td>Duration of hypnosis (min)</td>
<td>11.0 ± 2.5</td>
<td>14.0 ± 4.3*</td>
</tr>
<tr>
<td>Time to sternal posture (min)</td>
<td>1.8 ± 0.9</td>
<td>3.4 ± 3.1*</td>
</tr>
<tr>
<td>Time to standing (min)</td>
<td>1.0 ± 0.5</td>
<td>2.4 ± 0.9*</td>
</tr>
</tbody>
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CONCLUSIONS

- the combination of IM lignocaine with IV propofol enhanced the hypnotic effect of propofol.

- a definite interaction between lignocaine and propofol.

- The interaction has a potentiating effect;
REFERENCES


Thank you for your rasps attention!!!