

## Summary

The present work was done on twelve healthy native, of female goats. Their body weight ranged from 15 - 25 kg and their age ranged from 1 year to 2 years. The study was categorized into: Epidural analgesia and General anaesthesia.

The anaesthetic study was performed for clinical and biochemical assessment of some anaesthetic methods and agents:

- 1- Evaluation of single and combined agents for epidural analgesia :-
  - a- Tramadol HCL.
  - b- Lidocaine HCL 2%.
  - c- Tramadol HCL and Lidocaine HCL 2%.
- 2- Evaluation of propofol and ketamine (with its different groups ) in combination with diazepam for general anaesthesia to select the most reliable regimen used in goats in terms of its effect on vital physiological activity and biochemical parameter changes.
- 3- Evaluation of quality of intraoperative general anaesthesia :
  - A- Ovariohysterectomy.
  - B- Mastectomy.

In conclusion, the results of this study suggested that tramadol and tramadol-lidocaine combination are clinically useful to provide analgesia in goats for long-duration surgical procedures rather than lidocaine alone. However, further studies are required to determine the utility of this combination for surgical procedures before final recommendations can be made.

This study indicates that all regimens of general anaesthesia are associated with acceptable anesthetic characteristics. Propofol IV is superior to ketamine

because it provides uneventful onset and recovery which are more rapid than ketamine IV or ketamine IM, so reduces anaesthetic risk while administration of ketamine intravenously is superior to its administration intramuscularly.

The study showed that the intravenous combination of propofol and ketamine caused smooth and uneventful induction with mild cardiopulmonary depressions and rapid recovery. They were efficient for performing of major surgical interferences such as Ovariohysterectomy.

Duplication of the intravenous injection prolonged the anaesthetic period. And it was suitable for surgical operation such as Mastectomy.