The use of bipolar clamps for neutering in small animal practice
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Ovariectomy (OE), ovariohysterectomy (OHE) and castration are the most common methods of contraception in dogs and cats. Therefore, they are the most commonly performed surgical procedures in small animal practice in many countries. However, OE and OHE in mature, large bitches can be difficult and time-consuming due to the challenge of hemostasis. The aim of this study was to determine whether the use of bipolar clamps in OE and OHE of bitches and queens and in castration in dogs improved the ease and reduced the time of surgery.

Bipolar clamps were used to assist with hemostasis in OE and OHE in bitches and queens and for castration in dogs. The bipolar clamps initially used were 6 inches and 8 inches (Peebee Endoscopy, www.peebeeindia.com) and subsequently 6.5 inches and 7.6 inches (Baisheng Medical Company, www.obs-medical.com). There were 1,321 bitches spayed, 818 queens spayed and 1,154 dogs castrated during the time of this study from September 2011 to August 2016.

In bitches, all veterinary surgeons using the clamp to obtain hemostasis had the opinion that OE was easier and faster than suturing. Statistical analysis by a linear regression model demonstrated that the use of bipolar clamps reduced surgery time in bitches. The model also revealed clear effects of the age and weight of bitches being related to surgery time. There was also an effect of experience of veterinary surgeon being inversely related to surgery time.

In queen OE and dog castrations, surgery time was not greatly reduced nor was the ease of surgery greatly improved by using bipolar clamps.

Post-operative hemorrhage was not detected in any animal operated on. A complication initially encountered was superficial minor burns to the skin after the use of cautery. Protection of the skin by placement of a gauze swab between the skin and the clamp prevented this. It could be more difficult to obtain hemostasis in bitches with a large uterus such as those in diestrus and sometimes a uterine ligature was necessary to supplement the cautery. In cases of OHE in pyometra and cesarean spays, transfixion ligature was also necessary on the vaginal stump. There were some technical problems on occasion resulting from malfunction of the clamp or the cable.

Bipolar clamps are safe and effective and their use reduced the time of OE in bitches.

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