MJF College of Veterinary & Animal Sciences, Jaipur.

: PRESENTATION ON SPAYING AND NEUTERING

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- Title :- **Spaying and Neutering: Benefits and Considerations**

Introduction: Spaying, also known as Ovariohysterectomy, is a surgical procedure that involves the removal of a female cat or dog's reproductive organs, including the ovaries, fallopian tubes, and uterus. The surgery is commonly performed for various reasons, including controlling pet overpopulation, preventing certain health problems, and improving pet behavior.

Benefits of Spaying/Neutering:

1. **Prevention of pet overpopulation**: Spaying helps control the population of unwanted cats and dogs, reducing the number of homeless animals that end up in shelters.
2. **Reduced risk of certain health problems**: Spaying eliminates the risk of ovarian and uterine cancers and reduces the risk of breast cancer, which can be fatal in some cases.
3. **Improved pet behavior**: Spaying can reduce or eliminate the behaviour associated with heat cycles, such as aggression, yowling, and the urge to roam and mate.

Considerations:

1. **Age**: Spaying can be performed on cats and dogs as young as 8 weeks old, but sometimes until they are at least 6 months old.
2. **Cost**: Spaying and neutering can be costly, but many animal welfare organizations offer low-cost or free spay/neuter programs to help make the procedures more affordable.
3. **Recovery**: Pets may experience discomfort and require a few days of rest after the procedure. Follow your veterinarian's post-operative instructions to ensure a smooth and speedy recovery

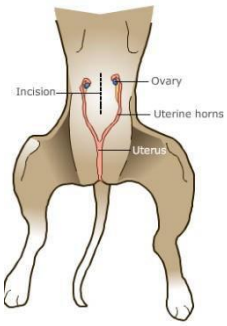
Spaying and Neutering Procedures:

SPAYING : Spaying, or Ovariohysterectomy, is a surgical procedure that involves the removal of a female cat or dog's reproductive organs, including the ovaries, fallopian tubes, and uterus. The procedure is typically performed under general anaesthesia to ensure the pet is asleep and pain- free during the surgery.

The veterinarian will first prepare the pet for surgery by shaving the surgical area and cleaning the skin with an antiseptic solution to reduce the risk of infection. The pet will then be hooked up to monitoring equipment to track their vital signs, such as heart rate, blood pressure, and oxygen levels, throughout the procedure.

The veterinarian will make a small incision in the abdomen to access the reproductive organs. The ovaries and fallopian tubes will be carefully isolated and tied off or sealed with surgical clips to prevent bleeding. The uterus will then be removed, and the incision will be closed with sutures or surgical staples.

After the surgery, the pet will be monitored closely by veterinary staff to ensure a smooth recovery. Pain medication may be given to keep the pet comfortable, and the veterinarian may recommend restricted activity and a special diet to promote healing.



NEUTERING: Neutering, or castration, is a surgical procedure that involves the removal of a male cat or dog's testicles, which are the primary source of testosterone. The procedure is typically performed under general anaesthesia, and the veterinarian will make a small incision in the scrotum to access the testicles. The testicles will then be removed, and the incision will be closed with sutures or surgical staples. The pet will be monitored for a few hours after the surgery to ensure a smooth recovery.

COMPLICATION:- Both spaying and neutering are considered routine surgeries, and they are generally safe when performed by a licensed and experienced veterinarian. However, as with any surgical procedure, there is a small risk of complications, such as bleeding, infection, and reactions to anaesthesia. To minimize these risks, it's important to follow your veterinarian's pre-

and post-operative instructions and to provide your pet with plenty of rest and TLC during their recovery.

Which anaesthesia is used and its dose

The type and dose of anaesthesia used during spaying and neutering procedures will vary depending on the individual *Pet's Age, Size, Health Status, and other Factors*.

However, here is a general overview of the anaesthesia options commonly used:

General anaesthesia:

Most spaying and neutering procedures are performed under General Anaesthesia, which means the pet is completely unconscious and unable to feel any pain during the surgery. General anaesthesia is typically administered via an intravenous (IV) injection or inhalation anaesthesia.

Intravenous anaesthesia is injected directly into a vein, and it usually takes effect within seconds. The dose and type of intravenous anaesthesia used will depend on the pet's weight, age, and overall health.

Inhalation anaesthesia involves the pet breathing in a gas or vapor anaesthetic through a mask or tube. This type of anesthesia may be used for longer procedures or for pets with respiratory or cardiovascular issues that may make intravenous anaesthesia more risky. The dose and type of inhalation anaesthesia used will also depend on the pet's weight, age, and overall health.

Local anaesthesia: In some cases, a local anaesthetic may also be used to help manage pain during the spaying or neutering procedure. Local anaesthesia involves injecting medication directly into the surgical site to numb the area and prevent pain**. This type of anaesthesia is often used in conjunction with general anaesthesia to provide additional pain relief**.

The specific type and dose of anaesthesia used during a spaying or neutering procedure will be determined by the veterinarian based on the *pet's individual needs and medical history*. It's important to follow your veterinarian's pre-operative instructions, such as fasting requirements, to ensure your pet's safety during the procedure. After the surgery, your pet will be closely monitored during the recovery period to ensure a safe and smooth return to consciousness.

Here are some examples of commonly used general and inhalation anaesthetics for spaying and neutering procedures, along with their typical dosages:

General Anaesthetics

1. ***Propofol*** - This is a short-acting intravenous anaesthetic that is commonly used to induce anaesthesia in cats and dogs. The dosage will depend on the pet's weight, but it usually ranges from **2-8 mg/kg**.
2. ***Ketamine*** - This is another intravenous anaesthetic that is commonly used in combination with other anaesthetics to provide pain relief and muscle relaxation during surgery. The dosage will depend on the pet's weight, but it usually ranges from **5-10 mg/kg.**
3. ***Isoflurane*** - This is an inhalation anaesthetic that is commonly used to maintain anaesthesia during longer procedures. The dosage will depend on the pet's weight and individual response to the anaesthetic, but it is typically administered at a concentration of 1-2%.

Inhalation Anaesthetics

1. ***Sevoflurane*** - This is a commonly used inhalation anaesthetic that provides rapid induction and recovery from anaesthesia. The dosage will depend on the pet's weight and individual response to the anaesthetic, but it is typically administered at a concentration of 2-5%.
2. ***Desflurane*** - This is another inhalation anaesthetic that is commonly used in combination with other anaesthetic to provide pain relief and muscle relaxation during surgery. The dosage will depend on the pet's weight and individual response to the anaesthetic, but it is typically administered at a concentration of 6-12%.

It's important to note that the dosage of anaesthetics used during spaying and neutering procedures will vary depending on the individual pet's health status, age, weight, and other factors. The veterinarian will carefully calculate the appropriate dose and monitor the pet's vital signs throughout the procedure to ensure their safety and comfort.

Conclusion

Spaying and neutering are safe and effective ways to control pet overpopulation, prevent certain health problems, and improve pet behaviour.

THANK YOU