Ovariohysterectomy

Abstract
This online lecture focuses on the bitch spay or ovariohysterectomy and is ideal for Veterinary Nurses in practice in dealing with admits and discharge and in nursing ovariohysterectomy patients.

Learning outcomes
- Enables Vet Nurses to feel confident when discussing ovariohysterectomy with owners
- Enables Vet Nurses to fully understand the pros and cons, and assist owners to come to an informed decision
- Ensures Vet Nurses are gaining informed consent from owners when admitting bitches for ovariohysterectomy

Course Notes
- Know all the facts and figures ourselves to allow owners to make informed choices based on proper evidence based research
- Come up with clear practice protocols
- Ensure everyone in the practice is giving the same advice
- Educate front of house staff as they are often the first port of call for enquiries
- Use RVNs to their full advantage – nurse appointments for advice.

- Practice admittance procedures – is yours good enough?
- All consent must be ‘informed’ – so what does that mean?
  - Owner must understand what will take place
  - They must understand any potential risks of the procedure
  - They should be aware of any potential negative consequences
  - They should be aware of any alternatives
- Appropriate language should be used that the owner can understand
Population Control:
- Promoted by charities as a main reason for spaying your bitch
- Responsible pet ownership and education of owners also plays a major role in population control
- RVNs can educate owners of entire bitches how to prevent unplanned litters – if they choose not to spay the advice shouldn’t end there

Mammary tumours:
- No clear cut evidence regarding the incidence
- Norwegian study found incidence of 53% (neutering illegal here)
- Swedish study found 13% in dogs at 10 years of age (indicating incidence increases with age)
- UK study showed lower results however results are flawed
- Benign tumours can transform into malignancies
- Oestrogen has an implication in their formation
- Malignancies can metastasise to other areas of the body – commonly the lungs
- The earlier spaying is performed the better the preventative effect
- Spaying prior to the first season reduces the risk to 0.5%
- After 2 cycles this risk has risen rapidly to 26%
- Owners must understand spaying older bitches will not prevent, or prevent formation of further tumours.

Pseudocyesis:
- Usually 6-12 weeks after oestrus
- Often not presented for treatment unless severe
- Incidence believed to be 50-75% but severity and symptoms vary
- Symptoms can be distressing for the owner
- Spaying is the only prevention
- Timing of spay vital to prevent inducing or prolonging signs

Pyometra:
- Incidence believed to be around 24% of entire dog population by 10 years of age but breed variation
- Risk increases with age
• Some belief that previous pregnancy may have protective effect but no firm evidence has been provided for this
• Neutering at any age will prevent pyometra
• Surgical management seems to still be deemed the treatment of choice by most VSs
• Obvious risk to patient – may need stabilisation first
• Medical treatment may be attempted but risk of rupture, recurrence at next oestrus and reduced fertility
• RVNs role to educate owners of entire bitches of the risk and signs to be aware of
• Encourage use of a diary to identify cycle abnormalities

Reproductive cancers:
• Canine ovarian and uterine tumours uncommon but prevented by spay
• Vaginal and vulvar tumours often influenced by hormones

Urinary incontinence:
• Can have major impact on pet/owner relationship
• Usually controlled with medication but treatment lifelong with cost implications
• Often one of the major reasons owners are reluctant to spay
• Bitches will usually ‘leak’ urine where they are lying
• Vital to exclude other differentials eg renal disease, ectopic ureters
• Can also occur in entire bitches (1%)
• Incidence in spayed bitches estimated to be 5-20%
• Exact cause unknown but may be multiple factors
• Seems more common in dogs over 10kgs and docked breeds
• Excessive adhesions may also contribute
• Mean age at onset of signs 5 years
• Various studies looking at age of time of spay as historic advice was more common if spayed prior to season
• US study showed spay <14 weeks of age led to increased risk – not commonly performed in UK

Cruciate ligament disease:
• Rupture of CCL is more common in neutered dogs
• Why?
• Spaying at < 6months does affect tibial plateau angle - ? Risk factor
• What else should be consider
  ○ Entire dogs less likely to be exercised off lead
  ○ Spayed dogs more likely to be overweight – weight is a risk factor too!
  ○ Certain breeds also predisposed to CCL disease

More unbiased research needed

Hip dysplasia:
• No unbiased studies to analyse!!
• Most studies do not take into account other risk factors
  ○ Weight
  ○ Breed
  ○ High impact exercise
  ○ Was neutering performed early due to poor conformation/breeding stock
  ○ Interpretation of hip radiographs varies between vets

Osteosarcoma:
• 1 study showed neutered dogs twice as likely to get osteosarcoma
  ○ Age at time of neutering not recorded – effect of hormones on bone during growth unknown
  ○ Only studied pedigree dogs
• A study of rottweilers showed dogs neutered prior to one year of age more likely to have osteosarcoma
  ○ As a breed they have a high disposition so not representative of general population

Obesity:
• Growing worldwide problem
• Neutering is often blamed!!
• Links to many health issues
  ○ Diabetes mellitus
  ○ Cardiorespiratory conditions
Joint problems
Incontinence

- Estimated neutered dogs require approximately 30% reduction in calories
- Due to decreased interest in exercise and increased appetite, not reduced metabolic rate as previously thought
- Many other risk factors involved
  - Age of dog
  - Age of owner
  - Weight of owner
- Prior to neutering educate owners on the need for decreased calories
- Encourage regular visits to the surgery to pinpoint problems sooner
- Dedicated weight clinics with nutrition trained nurses
- Educate owners about feeding regimes
  - Choice of appropriate diet
  - No human food scraps
  - Weighing daily allowance – measuring cups very unreliable
  - Awareness of satiety to prevent scavenging behaviours
  - Other feeding techniques for greedy pets

Behaviour:
- Some studies have shown increased aggression in spayed bitches
- Behaviour is governed by many factors so proper studies very difficult
- Not a solution to any behaviour problems
- Does not have any effect on their trainability
If in doubt always consult an APBC approved behaviourist.

Risks of surgery/anaesthesia:
- All surgeries and GA’s carry a risk – even routine neutering
- Is spaying a bitch a minor procedure?
- Complications dependant on surgical experience
- Laparoscopic surgery – relatively new to veterinary world
- Requires specialist equipment which is expensive
- Staff need to be trained in its use
- Some studies believe less painful
- Only remove ovaries - ? Does that matter

So what should practices do?

- Try to have set policies on neutering to avoid confusion
- Ensure RVNs possess knowledge to provide advice and gain informed consent
- Ensure front of house staff trained as often first point of contact
- Provide nurse clinics to give advice to clients
  - Is spaying right for them?
  - When should they spay?
  - Pre op advice about diet control post spaying
  - Regular post op weight checks to highlight and act on any weight gain early on
  - If choose not spay discuss responsible ownership to avoid litters
  - Advise owners of entire bitches about signs of pyometra

By providing correct factual information we improve the bond with clients and gain their trust

We will gain recognition as knowledgeable professionals who really care about pets welfare
References:


Jeusette, I., Daminet, S., Nguyen, P., Shibata, H., Saito, M., Honjoh, T., Istasse, L. and Diez, M. 2006. Effects of ovariectomy and ad libitum feeding on body composition, thyroid status, ghrelin and


Questions to consider while viewing the lecture:

- What is the estimated incidence of urinary incontinence in entire bitches
  
  a) it does not occur in entire bitches  
  b) 5%  
  c) 1%  
  d) 12%

- Which of these does spaying NOT prevent
  
  a) pyometra  
  b) pseudocyesis  
  c) aggression problems  
  d) uterine tumours

- What effect does spaying have on mammary tumours
  
  a) it will shrink down tumours already present  
  b) they will be prevented  
  c) the risk is minimised if done prior to first season  
  d) it has no effect on the incidence of mammary tumours

- Which of the following statements is correct regarding post spaying weight gain
  
  a) it is inevitable and can’t be prevented  
  b) spaying has no effect on their weight  
  c) it is preventable with correct advice, feeding and exercise regime

- When should we ideally discuss weight gain post spaying with clients
  
  a) prior to booking in for surgery  
  b) when they collect their animal after neutering  
  c) at the post op check  
  d) if they begin to put on too much weight
• How can we ensure informed consent is obtained prior to surgery
  a) ensure clients know risks of surgery
  b) ensure clients know exactly what the surgery involves
  c) ensure client knows potential adverse effects of surgery
  d) all of the above

• Hip dysplasia has been implied as a risk of neutering however there are many other risk factors for its development. Which of these is a risk factor for hip dysplasia in dogs
  a) excess weight
  b) breed disposition
  c) high impact exercise
  d) all of the above