Unlike a seizure episode the patient is conscious and responsive throughout.

The vestibular system is comprised of two parts, the peripheral vestibular system, composed of the inner ear and nerves outside of the brain, and the central vestibular system, the vestibular nuclei and its connections to the brain and spinal cord. Balance, head stabilization, posture and movement are all controlled by the vestibular system, providing the brain with information in order to maintain motor function and allow coordination.

A thorough neurological examination including a patient history is necessary in order to determine the location of lesion or abnormality in the vestibular system. This will also help to determine if the patient is suffering from a peripheral or central vestibular disease. Suspected peripheral cases should undergo a thorough otoscopic examination. Computed tomography or magnetic resonance imaging can help diagnose both peripheral and central vestibular conditions, and cerebrospinal fluid analysis can assist in diagnosis of inflammatory central nervous system disease.

Common conditions that are responsible for both central and peripheral vestibular signs include:

- Neoplasia
- Toxicity
- Inflammatory diseases
- Idiopathic
- Cerebrovascular strokes can cause central vestibular signs.

Nursing these patients requires careful consideration of symptoms, and the level of care needed depends greatly on the severity of the condition. Patients can often be recumbent, so recumbency care is vital. Turning the patient at least every 4 hours is important but can be tricky as balance is compromised leading to confusion and distress in the patient. It is important to use absorbent bedding such as Vetbeds if the patient is unable to go outside to toilet. Indwelling urinary catheters should be placed in recumbent patients to avoid urine scalding. Padding the sides of a kennel can help avoid injury in

patients that are crocodile rolling. Assistance in walking may be necessary with the use of a harness and sling. It is vital when administering nursing care and treatment to vestibular patients that reassurance is offered continuously and movements are performed slowly as they can become very distressed and panic, potentially causing more harm than good.

KEY LEARNING OBJECTIVES

- Have a good knowledge of the presentation and types of symptoms of a vestibular patient
- Understand the difference between a vestibular episode and seizure activity
- Appreciate the nursing considerations involved when looking after a vestibular patient

MULTIPLE CHOICE QUESTIONS

1. Which of the following is NOT a symptom of vestibular disease?
 - (A) Ataxia
 - (B) Head tilt
 - (C) Loss of consciousness
 - (D) Nausea
2. How often should a recumbent patient be turned?
 - (A) At least every 2–4 hours
 - (B) At least every 6 hours
 - (C) At least twice a day
 - (D) When other treatment is due
3. What is it important to do when moving vestibular patients?
 - (A) Move them quickly to minimize stress
 - (B) Avoid moving them as much as possible
 - (C) Always use a muzzle in case they bite
 - (D) Talk calmly to them and offer constant reassurance

Bladder management in the neurological patient

Charlene Mallott

Registered veterinary nurses must be able to recognize when a patient is not passing urine appropriately in order to feed this information back to the veterinary surgeon and to be able to offer the best care possible to patients.

The bladder wall is made up of a smooth muscle called the detrusor muscle which is innervated by a parasympathetic nerve, the pelvic nerve, which helps the bladder to contract for urination. The sympathetic hypogastric

nerve functions to relax the bladder wall and allow it to fill up and the pudendal nerve controls the external urethral sphincter. Damage or injury, such as a thoracolumbar lesion, pelvic fracture or tail-pull injury, can damage the nerves innervating the bladder and cause problems with urination and inability for the patient to empty the bladder.

Damage to the thoracolumbar spine can cause an upper motor neuron bladder, causing retention of urine despite a full bladder, due to contraction of the bladder wall and spasm of the external sphincter. This can make even manual expression difficult. Damage to the pelvis or a tail-pull injury are common causes for a lower motor neuron bladder. This causes both the bladder wall and external sphincter to be flaccid, resulting in leakage of urine. The bladder can be difficult to express manually as it can be stretched whilst the internal sphincter retains tone. When nursing these patients it is important to monitor bladder size regardless of any urine passed. Overflow

Guest (guest)

IP: 54.172.240.79

On: Wed, 26 Apr 2023 14:02:45

of the bladder will cause a wet bed and can be mistaken for normal urination.

Bladders can be managed via manual expression or placement of a urinary catheter. Manual expression allows the patient the opportunity to urinate independently upon improvement of the condition but can be traumatic and is not always well tolerated. Intermittent catheterization can cause trauma to the urethra and carries an increased risk of urinary tract infections. IDUCs are well tolerated and allow the bladder to be maintained empty in cases of over-stretching and close monitoring of urinary output, but take away the opportunity for the patient to urinate independently. Each patient's condition should be considered carefully before a bladder-management technique is chosen.

IDUCs should always be placed using a sterile technique and patient interference should be prohibited. Manual expression should be done carefully. The patient should be appropriately restrained and continuously reassured and even pressure should always be applied to reduce bruising or injury to the bladder. Excessive pressure should never be applied as there is a risk of bladder rupture. Drugs such as diazepam or prazosin can be prescribed by the veterinary surgeon to assist in relaxation of the external sphincter and bladder wall.

KEY LEARNING OBJECTIVES

- Understand how the bladder works and the types of problems commonly seen
- Recognize when bladder management is necessary

- Have a clear understanding of the types of bladder management, including indwelling urinary catheters (IDUCs) and bladder expression, and the nursing considerations involved

MULTIPLE CHOICE QUESTIONS

1. Which of the following statements about the pelvic nerve is true?
 - (A) A parasympathetic nerve that helps the bladder to contract for urination
 - (B) A sympathetic nerve that helps the bladder to contract for urination
 - (C) A parasympathetic nerve that helps the bladder relax for refilling
 - (D) A sympathetic nerve that helps the bladder relax for refilling
2. Which of the following can be caused by damage to the thoracolumbar spine?
 - (A) Urinary incontinence
 - (B) A blocked urethra
 - (C) An upper motor neuron bladder
 - (D) A lower motor neuron bladder
3. What is it important to do when manually expressing the urinary bladder?
 - (A) Appropriately restrain the patient
 - (B) Apply gentle even pressure to avoid bruising the bladder
 - (C) Offer reassurance throughout the procedure
 - (D) All of the above

Nursing considerations for the spinal patient

Natalie Roper

The aims of this lecture are to provide veterinary nurses with the knowledge and understanding of IVDD, how they can help and advise owners and how to manage and nurse patients with spinal conditions. We will initially look at the different types of IVDD, how patients can present clinically, the type of breeds that are more susceptible and why, and discuss the nursing care of these patients.

A type 1 disc herniation is the most common presentation and normally causes both contusion and compression of the spinal cord, whereas a type 2 disc herniation normally causes compression of the cord only. A traumatic disc (sometimes called a type 3 disc) causes quite a severe contusion with no compression. It is important to understand the different presentations and resulting damage to the spinal cord in order to be able to nurse and rehabilitate these patients correctly and effectively.

The location of the disc, the severity of the damage and whether the patient is being managed conservatively or surgically, will determine how these patients are cared

for. We will review the different options that are available for surgical management (hemilaminectomy, ventral slot) and why conservative management is sometimes offered instead. It is important to recognize why a decision is made one way or another regarding a patient's treatment pathway. Understanding these concepts will allow delegates to better select the correct nursing management.

The nursing care of spinal patients will be discussed in detail, primarily bladder care, pain management and physiotherapy. Bladder care is extremely important in spinal patients as they are often not able to void and need assistance. It can be quite difficult to empty a patient's bladder adequately and different techniques often need to be used. Spinal patients can sometimes experience a high level of pain, so it is important to know how to identify the source of pain and how to manage it effectively. Physiotherapy is an important aspect of a spinal patient's recovery and usually includes passive, active-assisted and active exercises, which we will discuss in further detail during the lecture.

KEY LEARNING OBJECTIVES

- To understand the different types of intervertebral disc disease (IVDD) and how these patients can present
- To understand the different management options and why they are offered
- To understand how to manage spinal patients effectively during their recovery and rehabilitation