Orthopaedics and physiotherapy (VN)

and the location of the defect. Fixation can be internal using items such as plates, pins, screws, wires and interlocking nails, or external using skeletal or ring fixators. Reduction of fractures is normally key to regaining function and adequate bone healing; correct identification and use of instrumentation is vital for this.

Minimally invasive techniques for managing orthopaedic disease also require sound knowledge of instrumentation and the additional electronic equipment used for visualization of joints, for example. Knowledge of both areas are important for the smooth running of the theatre suite and effective treatment.

Boxed 'kits' of instrumentation for tibial tuberosity advancement or external fixators for example, can be prepared in advance, but additional instrumentation may be required if there are any changes to the surgical plan.

In addition to having prepared kits for certain orthopaedic procedures, making kit lists to help all members of staff become familiar with the orthopaedic kits in the practice with help with theatre management. It is good practice for these lists to include photographs of the instrumentation and instructions such as whether they should be packed for sterilization in a certain way.

KEY LEARNING OBJECTIVES

- Acquiring sound knowledge of orthopaedic instrumentation to allow the theatre suite to run

effectively and enable the veterinary nurse to assist the veterinary surgeon efficiently

- Learning how to build boxed kits of the instrumentation required for standard orthopaedic procedures
- Knowledge of the necessary instrumentation and electronic devices such as monitor towers and fluid systems is vital for the smooth running of the theatre during minimally invasive orthopaedic surgery

MULTIPLE CHOICE QUESTIONS

1. Which of the following is not an example of an external fixator?
(A) Plate (C) Ring fixator
(B) Interlocking nail (D) Lag screw
2. Which of the following is not a type of self-retaining retractor?
(A) Wests (C) Freer
(B) Travers (D) Gelpi
3. Which of the following may be of assistance when carrying out orthopaedic surgery?
(A) Suction
(B) Electrocautery
(C) Scrub assistant
(D) All of the above

Physiotherapy for first opinion practices

Gillian Calvo

Physiotherapy clinics can be easily set up in general practice provided the time and facilities are available. Physiotherapy is commonly used for orthopaedic patients and is often appreciated by clients as it re-assures them of the ongoing care of their pets. Physiotherapy may be indicated as post-operative rehabilitation or conservative management of an existing condition.

Physiotherapy clinics are run to a plan of care established for individual patients. Prior to setting up a clinic you must consider the facilities available with you, the appropriate treatment for patients in accordance with clinical conditions, the time that can be devoted to the clinic, owner compliance and financial implications for owners and the practice.

By providing a physiotherapy service your aim is to restore normal mobility as effectively and safely as possible by achieving recovery from orthopaedic conditions with pain-free movement and improved joint and limb function. It is important to evaluate each patient individually and take into account the outcome expected by the owner. These goals must be set realistically and the owner must understand that complete recovery is not always possible.

The American Physical Therapy Association provides protocol guidelines for developing plans of care. These include:

- Initial evaluation
- Physical therapy examination
- Physical therapy diagnosis
- Prognosis
- Treatment

The physiotherapeutic methods that can be incorporated into a patient care plan in general practice vary depending on the facilities available and your level of knowledge and training in physiotherapy techniques. It is important to understand that there are limitations as a veterinary nurse to what methods of physiotherapy you can apply. Many of the basic methods are easily transferable to owners allowing the rehabilitation process to be continued at home.

REHABILITATION AND PHYSIOTHERAPY

Rehabilitation is the process of restoration of a patient to the maximum functionality, independence and quality of life following illness or injury. Physiotherapy uses physical approaches to promote, maintain and restore physical, psychological and social well-being. Physiotherapy is an integral part of the recovery of most patients as part of their conservative management and especially following surgery.

The first step in defining a physiotherapy plan is to identify if physiotherapy is indicated for that patient. Initial assessment is the first stage and includes a history and thorough examination of the musculoskeletal system to identify any problems the patient may have. Based on these findings treatment goals (short-term and long-term) are determined based on the abilities of the patient and the expectations of the veterinary surgeon and owner. At this point a treatment plan can be established. Where possible, objective outcome measures should be used to monitor progress and, depending on the practice, the veterinary physiotherapist, the veterinary surgeon and the veterinary nurse take part in the discussion.

PHYSIOTHERAPY TREATMENTS

A wide variety of techniques and modalities are available. The selection of the appropriate treatment method for the individual patient is based on the diagnosis and the initial assessment and will be discussed during the lecture. Often a combination of multiple techniques is applied.

KEY LEARNING OBJECTIVES

- Understand the key terms used in physiotherapy
- Be able to convey the key benefits of physiotherapy to clients and colleagues

- Understand the indications and contraindications of physiotherapy

MULTIPLE CHOICE QUESTIONS

1. Physiotherapy may be indicated in which one of the following?
  - (A) Relaxation
  - (B) Postoperative rehabilitation or conservative management
  - (C) Obesity
  - (D) Behavioural management
2. Physiotherapy aims to achieve which one of the following?
  - (A) Improved joint and limb function
  - (B) Improved skin condition
  - (C) Decreased joint range of motion
  - (D) Slow down postoperative recovery
3. The first step in defining a physiotherapy plan is:
  - (A) Assessing your patient's behaviour
  - (B) Just getting stuck in
  - (C) Not to involve the veterinary surgeon
  - (D) Obtain a history and perform a clinical examination of the musculoskeletal system

Which technique for what

Gillian Calvo

INDICATIONS FOR PHYSIOTHERAPY

Physiotherapy may be indicated in a variety of orthopaedic clinical conditions associated with the musculoskeletal system. Physiotherapy can be used in conjunction with a postoperative treatment plan such as a cranial cruciate ligament repair and may also be implemented for patients undergoing conservative management of a disease process such as osteoarthritis or degenerative myelopathy. To maximize the benefits, and the patient's response to physiotherapy, treatment should be started as soon as possible unless contraindicated

AIM OF PHYSIOTHERAPY

A range of physiotherapeutic modalities are used in combination to restore maximum functional mobility.

Physiotherapy is used to:

- Reduce pain
- Reduce inflammation, swelling
- Promote healing of musculoskeletal tissues
- Improve strength

- Improve core strength and stability
- Improve joint flexibility
- Restore functional movement
- Improve cardiovascular fitness
- Increase speed of recovery

Modalities, indications, effects, contraindications and therapy options as outlined below will be discussed in relation to the orthopaedic patient during the lecture. These will include:

- Thermotherapy
  - Cold and heat therapy
- Massage therapy
  - Effleurage
  - Petrissage
  - Friction
  - Shaking
  - Percussion

THERAPEUTIC EXERCISES

Therapeutic exercises are an important aspect of patient rehabilitation to improve the rate of recovery and the quality of movement achievable by the patient including improved stamina and cardiovascular fitness. Patient rehabilitation plans should not be stagnant but should evolve depending on progress. It is important to remember that if your patient is not fulfilling the set goals or achieving the best performance from the exercises prescribed then perhaps the modality should be changed