

A call for teaching animal physiotherapy courses in the Egyptian veterinary faculties

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Letter to editor

Abstract Despite the Egyptian country's efforts to develop animal health care, the field of physiotherapy for animals in Egypt does not receive any attention from the country, and even a simple course is not taught about it so far in the Egyptian faculties of veterinary medicine. Veterinary physiotherapy is a specialty of veterinary medicine that is growing in popularity across the world. The extensive studies that have been conducted thus far not only verify the multiple therapeutic advantages of animal physiotherapy but also suggest that it is gaining popularity. Rehabilitation is a crucial part of physiotherapy, and it is the process of assisting an animal suffering from an illness or injury to regain the best degree of functioning, independence, and quality of life possible. Animal physiotherapy courses must be taught to the students of Egyptian veterinary faculties. Animal physiotherapy courses must include methods for evaluating the animal's physical condition. It must also contain the practical training necessary to create an accurate physiotherapy program for animal rehabilitation. It is possible and even easy for Egyptian veterinary colleges to follow the example of a country like Britain in this field.

Dear editor

With the government's expansion in establishing 14 veterinary colleges from 1954 to 2013 in various Egyptian universities (1), five other colleges were established from 2013 to the present time. With the increase in the demand for health care for pets (animals that are often raised in homes such as cats and dogs) or animals used in the field of agriculture (such as horses, cows, and buffaloes), veterinary hospitals or clinics were established affiliated to the faculties of veterinary medicine or affiliated with the

Ministry of Agriculture in addition to private pet clinics.

Despite the country's efforts to develop animal health care, the field of physiotherapy for animals in Egypt does not receive any attention from the country, and even a simple course is not taught about it so far in the Egyptian faculties of veterinary medicine.

Veterinary physiotherapy is a specialty of veterinary medicine that is growing in popularity across the world. The extensive studies that have been conducted thus far not only verify the multiple therapeutic advantages of animal physiotherapy but also suggest that it is gaining popularity (2).

With the variations in behavior, anatomy, biomechanics, pathophysiology, and causes of

common clinical disorders between animals and humans, animals, like humans, suffer from musculoskeletal problems such as fractures, soft tissue injuries, back discomfort, degenerative arthritic changes, muscular strain, and delayed wound healing which necessitate rehabilitation management and sometimes post-operative physiotherapy. Animals' discomfort can manifest itself in a variety of ways, including changes in behavior, movement or gait adaptation, resistance development, diminished performance, and behavioral issues (3).

Rehabilitation is a crucial part of physiotherapy, and it is the process of assisting an animal suffering from an illness or injury to regain the best degree of functioning, independence, and quality of life possible. Inadequate rehabilitation, especially during the early phases of recovery, can result in significant discomfort for the animal, muscle atrophy, joint stiffness, and a sluggish or partial return to function (3).

Opposite to humans, animals are unable to tell therapists about pain or to comply with

requests for specific movements or actions, so assessment of active joint range of motion and assessment of muscle strength are evaluated on the response to functional active movements and facilitating/evoking specific reflexes in animals. Whole body inspection and palpation, passive joint range of motion, muscle length tests, and electrophysiological studies for muscles/nerves are inevitably performed during veterinary physical therapy assessment (4).

The basic modalities used in the physical therapy of humans are very similar to those used in animals. Incorporating the mechanism, indications, and contraindications of different physiotherapeutic modalities in animal rehabilitation courses is requested for tailoring the physiotherapeutic knowledge of under-or post-graduate veterinarians.

Mobilization, massage, myofascial releasing, passive range of motion, trigger-point release, manipulation, reflex inhibition methods, particular stretches (3), and heat/cold therapies (5) are all examples of hands-on physiotherapeutic animal therapies

for pain and range of motion improvements. Besides ultrasound, phonophoresis, laser, and interferential current, pulsed electromagnetic energy, transcutaneous electrical nerve stimulation, and faradic muscle stimulation are examples of electrotherapies that can be used for pain or strength improvements. Rehabilitation programs, core-stability or postural exercises, sport-specific training (3), balance exercises (6), and hydrotherapy (7) are all examples of exercise therapy (3).

Also, other modalities can be used in animal physiotherapy as extracorporeal shock wave therapy (help promote bone, tendon, and ligament repair, speed wound healing, and offer antimicrobial and pain-relieving characteristics) (8) and equine hyperbaric oxygen therapy (utilized in breeding, anemia or blood loss, bone infection, wounds in skin and muscle tissue, laminitis, post-surgical patients, and connective tissue injuries) (9).

Lifestyle modification therapy for obese humans (10-14) can be also used in veterinary physiotherapy for obese cats or dogs. Pets' obesity can be treated with a two-pronged approach: calorie restriction and

increased physical activity (15). Principles of chest physiotherapy (vibration, percussion, positioning, or postural drainage) for human patients can also be introduced as respiratory care especially for animals with respiratory conditions or admitted cats/dogs to the intensive care unit after a catastrophic injury and subsequent surgery are susceptible to a variety of physical disorders associated with enforced recumbency, which can be mitigated or even prevented with adequate rehabilitation and supportive treatment (16).

As an evidence-based practice in small animals recovering from fractures, it is proven that superficial thermal/heating modalities, passive/non-active range of motion and stretching exercises, soft-tissue massage/mobilization, therapeutic ultrasound, electrotherapy, and therapeutic exercises can ensure a more complete small animal recovery (17).

Animal physiotherapy courses must include methods for evaluating the animal's physical condition. It must also contain the practical training necessary to create an accurate physiotherapy program for animal

rehabilitation. It is possible and even easy for Egyptian veterinary colleges to follow the example of a country like Britain in this field (4).

This country was not limited to teaching the animal physiotherapy course to undergraduate veterinarian students, but it also introduced a diploma and a master's program in animal physiotherapy in the year 2000. Both programs were accredited by the Royal Veterinary College, London. These part-time postgraduate studies were created to enable credentialed physiotherapists to use their professional knowledge, experiences, and hands-on therapy abilities in the treatment of animal patients. Students must complete an original research project as part of their M.Sc. program, which contributes to the establishment of a much-needed scientific-proof platform for veterinary physiotherapy (4).

Despite Egypt was the first country in the Middle-East region to enforce regulations concerning animal welfare and care (18), the Egyptian country did not take formal steps to establish animal physiotherapy outpatient clinics in various veterinary hospitals. It is

suggested to provide continuous financial support for these clinics to equip them with the latest assessment and treatment physiotherapy devices in this field. Financial support can be achieved through the collaboration of some organizations and ministries such as animal rights organizations, in addition to allocating part of the budget of the Egyptian Ministry of Agriculture to establish veterinary physiotherapy departments within governmental veterinary hospitals.

As a field that takes its first steps in the Egyptian country, the professors of the Egyptian faculties of physical therapy can be consulted in explaining the types and importance of some methods of physical therapy that are very similar in their use with their counterparts in humans. Finally, the basic animal physiotherapy information should be made known to animal caretakers and pet owners. They should be suitably motivated and educated if necessary.

Disclosure statement

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