acupet
veterinary acupuncture

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Presentation: Integrative veterinary therapy for small animals
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Overview of Acupet Services

- Acupuncture
- Laser Therapy
- Pain Management
- Physical Rehabilitation

Today's presentation
What is pain?

How do I know my dog is in pain?

Osteoarthritis and multimodal management
Lots of options to manage arthritis.

Pain- what is it?
An unpleasant sensory and emotional experience associated with actual or potential tissue damage.

Pain is processed in the brain

Pain is also extensively processed in the spinal cord.

Pain
Adaptive: Usually acute. Serves a purpose.
Protects the body from injury
Promotes healing by inhibiting movement
Short duration, easily treated.

Maladaptive: serves no purpose to the body.
Sources: osteoarthritis, cancer pain, neuropathic pain.
Difficult to treat

Pain becomes a disease state of its own

Maladaptive pain leads to wind up
Anatomical and physiological changes to the spinal cord.
This condition is called **Wind Up.**

Pain is perceived as worse than it should be
Areas away from the site of pain become painful
Touch and pressure are considered painful
Pain becomes super difficult to control

Treat pain as early as possible to prevent wind up.

What else is happening in the body with uncontrolled pain?
Increased cardiovascular demands
Reduced immunity
Reduced gut motility
Increased metabolism: breakdown of muscle, fat and glucose stores
Anxiety, depression, possible aggression
Reduced food intake
Poor sleep habits
Respiration: compromised.

How do I know my dog is in pain?

Changes in:

Temperament
Behaviour
Posture
Vocalisation
Mobility
Dislike palpation of particular parts of the body

Temperament
More subdued, depressed
Less interactive?
More anxious ? Attention seeking?
Withdrawal from usual activities
Possible aggression
Droopy eyes, worried facial expression (arched eyebrows, darting eyes), ears back

Behaviour
Reduced appetite or picky with food.
Reduced water intake
Less active in general and reduced energy levels
Less interactive with people/ occurrences going on around them
Reluctant to respond when beckoned
Reduced play behaviour
Unsettled or restless- may move around a lot trying to get comfortable.

Pacing behaviour- common with abdominal pain
Licking, biting certain areas of the body.
Flinches when touched
Trembling, shaking.
Limbs, body.
Does not shake any more when wet.
Panting
Lapses in house training

Postural changes
Change in posture- Hunched in abdominal/spinal pain; head held down with neck pain.
Weak tail wag, low tail carriage- maybe no longer wags his or her tail
Reduced stretching.
The usual position they sit and/or lie in has changed.
Difficulty getting up from a seated position

Vocalisation
Becoming more vocal- whimpers, crying, groaning, barking, growling
Whimpers, cries, pulls away when an area of their body is touched.
Many dogs will not vocalise when in pain.

Mobility
Reduced weight bearing on a limb(s), lameness
Obviously holding a limb up
Change in gait pattern e.g. stiffness, scuffing feet.
Unable to do activities they could normally do e.g. jump in the car, climb stairs
A strange gait e.g. Bunny hopping with hip dysplasia

Osteoarthritis
The progressive and permanent deterioration of the articular cartilage in joints due to primary or secondary causes

Primary causes: no known cause

Secondary causes:

Abnormal forces on a normal joint

Normal forces on an abnormal joint

What happens?
- Articular cartilage breaks down
- Bone underlying articular
  Undergoes degeneration
- Decreased lubrication of joint by modified synovial
  fluid

- Joint fluid is a soup of inflammatory products that sensitise pain receptors
- Osteophytes develop to try and stabilise the joint
- Thickening of the joint capsule, ligaments etc

Management of arthritis
Multimodal

Target management from various angles

Attention to management everyday, ongoing.

Management of arthritis

- Weight control
- Nutraceuticals
  - High EPA diet
  - Glucosamine/chondroitin
- Pain management
  - Acupuncture or laser therapy
  - Pharmaceutical agents e.g. NSAIDS
- Physical rehabilitation
- Environmental modification

Weight control
Best way to reduce the pain of arthritis!!!!
Can reduce need for pain meds by 25 to 30%

Special weight loss diets if required
Hills w/d or r/d
Hills metabolic diet

Nutraceuticals
EPAs (omega 3 fatty acid)
Eicosapentanoic acid
Decreases inflammation & joint pain
Suppresses cartilage breakdown
Fish oil
Diets: Hills J/D

Glucosamine/chondroitin
Chondroprotectants
Building blocks for articular cartilage
Slow degenerative joint changes
Decrease inflammation and pain
Increases joint fluid production
Cosequin and Synoquin have proven results.

Acupuncture therapy

Pain relieving and anti-inflammatory effects
Boosts well being and energy levels

Fact:
The body is a magnificent self repairing organism which can be stimulated to heal itself and return to a normal physiological balance. This balance is called homeostasis

By inserting fine gauge needles into specific points, on the body, a cascade of physiological effects
occur and allow the body to return to homeostasis.

Effects of Acupuncture

- Pain relief
    - Endorphin release
- Sedation
    - Dopamine, Serotonin release
    - Endorphins
    - Great for behavioural problems
- Homeostasis
    - Respiration, heart rate, blood pressure, temperature, metabolic rate, sweating and electrolyte balance affected.
- Enhanced immunity
- Repair of damaged areas of spinal cord and nerves

Western explanation

Essentially it works by stimulation of the CNS

Acupuncture points occur at discrete locations and stimulation of the point activates the appropriate nerve pathways

Eastern Explanation

Theory of Qi, acupuncture points and meridian pathways

Qi is the “vital force” that moves in channels

Pain is said to be Stagnant Qi and Blood.

Musculoskeletal conditions acupuncture can treat

Arthritis
Hip dysplasia
Spondylosis deformans
Muscular strains / sprains / tears
Muscle spasms
Myofascial Trigger Points.

Any muscular pain

Neurological conditions acupuncture can treat

Intervertebral disc disease (IVDD)
Traumatic nerve injuries
Certain types of paralysis (e.g facial and radial nerve paralysis)
Seizures
Wobbler's syndrome
Degenerative myelopathy (DM)
Fibrocartilaginous emboli (FCE)
Sciatica
Cauda equina syndrome
Tail pull injuries

What else?

SKIN: Lick granulomas and skin allergies.

GASTROINTESTINAL:
Chronic/acute diarrhoea
Constipation
vomiting
IBD in cats and dogs

BEHAVIOURAL: Separation anxiety, phobias, insomnia

URINARY:
Acute and chronic renal failure
Feline Lower Urinary tract Disease (FLUTD)
urinary incontinence

Laser Therapy

Laser treatment is the use of light of a specific wavelength therapy to achieve the following:

- Relieves pain
- Reduces inflammation
- Increases microcirculation (blood flow) to tissues resulting in acceleration in tissue repair and wound healing.

Physical Rehabilitation

Modalities and exercises that:

- Increase speed of recovery from injury, surgery.
- Improve quality of movement and improve performance
- Improve biomechanics and flexibility
- Increase strength of muscles , tendons and ligaments
- Increase endurance
- Reduce pain
- Improve balance and proprioception
- Aid weight loss
- Increase quality of life and a sense of wellbeing

- Prevention of future injury through tissue strengthening.

Pharmaceuticals
NSAIDS are an important part of pain management from the get go of arthritis
Controls the inflammatory part of arthritis which contributes to pain
Good for mild to moderate pain
Pain management is multimodal.
Other adjunctive pain drugs added as disease progresses.

Environmental modification
Comfortable bedding
Ramps into cars and house
Raised food bowls
Non slip flooring
Dr Buzby's Toe grips (for non slip on wooden floors.)
Warm wheaties
Avoid stairs
Warm areas to sleep
Controlled exercise: Be mindful of activities that worsen stiffness and pain
Don't forget about assistive devices

Conclusion
Pain management is vital. Untreated it only gets worse
Identifying pain: look out for changes in posture, vocalisation, mobility, behaviour.
Pain treatment options: acupuncture, laser treatment, nutraceuticals, physical rehab
Don't forget environmental modification
Pharmaceuticals will be needed for more moderate to severe pain in conjunction with the above.