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PROFESSORIAL LECTURE
17 MARCH 2015
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**PAINIS NOT A LIFESTYLE,
PAIN IS INEVITABLE, SUFFERING IS OPTIONAL**

Animals were perceived that they do not feel pain. As time goes by and as human is more sensitive to animal feeling, we realised that animals do experience pain. Studies have shown that all mammals have similar neural pathways and neurotransmitters required for the transmission and perception of pain. Furthermore ethical consideration towards pain management in animals triggered numerous research interests in this area.

Analgesia is the study of pain perception. 'An' is no and 'algesia' is feel. Pain is define as an aversive sensory and emotional experience representing awareness by the animal of damage or threat to the integrity of its tissues.

Assessment of pain is difficult. What is painful to man can be painful to animals too. Assessment can be very subjective, a great deal depends on the experience of the assessor and the animal involved. No matter what is the outcome, we must

REMEMBER!!!!

These animals do feel pain, hunger, thirsty, hot, cold, fear, loneliness and so on.

Human may lack the ability to detect pain in animals but behaviour patterns (crying, isolating, biting) may show that an animal is in pain. Any behaviour changes may indicate pain.

Pain can broadly be divided into:

1. Acute or Short-term Pain

due to tissue trauma or inflammation following surgery or accident. It normally subsides quickly provided no other complications.

The response to acute pain includes vocalization, guarding behaviour especially when moved or touched, aggressive and self-mutilation.

2. Chronic Pain

is persistent and lasts for a longer period of time.

examples: cancer and degenerative joint diseases, skeletal pain, lameness, stiffness, pain associated with abdominal, aural or other organ pathologies.

WHAT TRIGGERS SENSE OF PAIN!

1. A noxious stimuli - are materials or substances that when applied to a certain magnitude or duration, give rise to afferent discharge, sensory changes or behavioural responses in the animals. This causes pain due to damage to normal tissues (IASP).
2. A nociceptive stimuli - may not cause tissue damage but do cause pain. A good example is capsaicin, an active component of chilli peppers which is an algogenic stimulus (pain producing) or nociceptive stimulus (nociceptor excitant) but not noxious stimulus (injury producing).

ANALGESIC DRUGS

1. Conventional

- a. Opioids (from opium) – morphine, pethidine, fentanyl, butorphanol, etorphine, methadone, tramadol, codeine (antagonists – naloxone, nalorphine)



- b. Non-steroidal anti-inflammatory drugs – phenylbutazone (Panadol, paracetamol), acetylsalicylic acid (aspirin),
- c. Local anaesthetics – lignocaine,
- d. Others: ketamine HCl, medetomidine, xylazine HCl

2. Traditional

Herbals

Clove (tooth-ache), castor oil (back pain), eucalyptus (allergies, cuts and wound), turmeric (arthritis, candida/yeast), peppermint (cold, congestion), wintergreen (arthritis).

Non-herbal

Body massage, acupuncture,



cupping



facial massage cups

THE NEED FOR ANALGESIA

- Control acute pain - post-surgery
- Control chronic pain eg skeletal pain
- As part of balanced anaesthesia
- Provide sedation
- Facilitate handling of vicious animals.

ASSESSMENT OF PAIN IN ANIMALS

Some of the methods that have been used:

1. Finger pressure (on surgery site)
2. Thermal Stimulus Device
3. Mechanical Threshold Device
4. Chemical

CONCLUSION

Quoting from Raffa and Pergolizzi, 2014:

A modern analgesics pain 'pyramid'.

In an effort to provide guidance for the use of analgesics for pain management--while at the same time acknowledging the professional, patient and regulatory-legal concerns about the use of strong opioids--the World Health Organization (WHO) in 1986 suggested a conservative stepwise approach. In addition to the use of non-pharmacologic measures, the WHO recommended that pharmacotherapy be initiated using a non-opioid analgesic first and then progress through 'weak' opioids or analgesic combinations to 'strong' opioids if, and only if, needed. This approach gave a rationale, and a justification if necessary, for the use of opioids. This stepwise approach became widely known as the WHO analgesic 'ladder'.

Since the initial WHO guidance, there have been significant changes in the understanding of pain. It is increasingly considered a physiological process that merits and deserves independent treatment. In addition, more analgesic options are available now than in 1986.

WHAT IS NEW:

Because of the evolving understanding of the physiology of pain and better approaches to its management, we suggest that more modern best practice is an analgesic 'pyramid'.



The WHO Guidelines Recommend,

Step 1: prompt oral administration of drugs when pain occurs, starting, if the patient is not in severe pain, with non-opioid drugs such as [paracetamol](#) (acetaminophen), [dipyrrone](#), [non-steroidal anti-inflammatory drugs](#) (NSAIDs) or [COX-2 inhibitors](#).

Step 2: Then, if complete pain relief is not achieved or disease progression necessitates more aggressive treatment, a mild opioid such as [codeine phosphate](#), [dextropropoxyphene](#), [dihydrocodeine](#) or [Tramadol](#) are added to the existing non-opioid regime.

Step 3: If this is or becomes insufficient, a mild opioid is replaced by a stronger opioid, such as [morphine](#), [diamorphine](#) (heroin), [fentanyl](#), [buprenorphine](#), [oxymorphone](#), [oxycodone](#), [hydromorphone](#), while continuing the non-opioid therapy, escalating opioid dose until the patient is pain free or at the maximum possible relief without intolerable side effects. If the initial presentation is severe pain, this stepping process should be skipped and a strong opioid should be started immediately in combination with a non-opioid [analgesic](#).

WHO Three-Step Analgesic Ladder

