## L'HOMME-ANIMAL



# 3 - Douleur animale et éthique ; un regard à 360°



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Diplomée des universités de Turin en Italie et Bern en suisse, Pr Alessandra Bergadano a un pHD sur diagnostic de la douleur, analgésie et modèle de nociception. Spécialiste Européenne à la fois en anesthésie et analgésie vétérinaire et en médecine des animaux de laboratoire, elle a travaillé à la fois sur tous types d'animaux, à la fois en cliniques mais aussi au sein de l'industrie dans des contextes cliniques ou expérimentaux. Depuis ces 10 dernières années, elle est entièrement dédiée à la médecine des animaux de laboratoires, et depuis 2018, dirige Central Animal Facilities, DBMR, University of Bern, Switzerland. Egalement consultante pour AAALAC International et membre du board pour the Ethic committee of the Swiss academies.

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#### It has been a long journey from accepting that animals feel pain and have emotions related to it, which can result in suffering and they need for appropriate treatment (Nolen 2001).

Pain in animals can be:

"clinical": result of animal care vet treatment (tatoo, blood sampling, spaying...), be secondary to disease or injury or an illness by itself

"Research related": most commonly pain is an undesired by-product of research but pain can be the focus of the research itself adding ethical challenges for animal welfare. As veterinarians it is our moral and ethical duty to mitigate this suffering to the best of our ability (Animal Welfare Guidelines and others 2019). According to the WSAVA Guidelines for recognition, assessment and treatment of pain (Mathews and others 2014), pain should be evaluated at every patient contact and be treated at the best of the actual knowledge. This addresses one of the interests of animals "being free of pain and disease" and therefore their dignity (Ryan and others 2019).

To date, huge progresses have been achieved in knowledge about pain, species-specific pain detection and treatment and the overall awareness and attitude towards animal pain. Pain prevention (pre-emptive analgesia), recognition and treatment can be easily achieved for acute pain, while diagnose and treatment can be more challenging in chronic pain conditions. Professional codes, owner expectation, technology, money, technical skill, ambition all promote "maximum intervention", it is important to reflect if treatment is in best interest of the animal and where and when do we set the bar. This ethical reflection can be performed with a harm-benefit analysis and taking into consideration the parties involved: animal/patient, veterinarian, owner and their interactions (Grimm and others 2018).

The harm-benefit analysis is mandatory when pain can be elicited in animals used in research and the regulatory and ethical frames are well defined (Chlebus and others 2016; Olsson and others 2016). For ethical, moral, and scientific reasons pain must be kept to a minimum; pain relief is key to sound scientific data and the internal validity of research.

A major ethical and moral challenge is pain as focus of the research itself as for these models the administration of analgesics is conceptually contraindicated (Lund and others 2014). Actually... causing pain is not categorically prohibited but needs to be justified by outstanding scientific advance. While models of acute nociception are not a major welfare issue as the elicited pain is short lasting and not severe, and animals can escape (withdrawal) to the stimuli, models of chronic pain purposefully elicit pain of longer duration as hyperalgesia and allodynia that can be distressing and often induce irreversible changes. The definition of adequate endpoints is essential to avoid unnecessary suffering and models inducing the least tissue damage and pain (intensity and duration) should be chosen.

Independently of its origin, pain and suffering must be minimized! The aversiveness of pain is primarily determined by duration and intensity: momentary and/or slight pain is less aversive than chronic and/or intense pain. Duration and intensity interact to affect aversiveness, although not in a simple additive way. In humans, the aversiveness of pain is also affected by psychological factors, such as how controllable or predictable the pain is, and its context or consequences. There is little information about the influence of such effects in other animals; thus for most practical purposes, the alleviation of pain in animals typically means reducing its duration and/or its intensity, and both are refinements to be made whenever possible. Moving forwards in our understanding of animal welfare and pain states, it is important to include a structured ethical reflection "Just because we can, does this mean we should?" and on where to set the bar for the seek of the patient. In controversial and emotional situations an internal multidisciplinary ethical committee could review these cases and guide the decision process by applying a veterinary ethical tool (Grimm and others 2018) or other ethical principles (Bley 2018). Setting endpoints is mandatory to avoid suffering. In research, establishing a culture of care should help reduce pain and suffering.

Pain as achieving successful strategies for its treatment is an overarching experience which can benefit from the continuing collegial discussion and sharing of the different stakeholders for the benefit of animal welfare. And the journey continues....