It is the responsibility of the UGA IACUC to evaluate all research and instructional protocols for the potential to cause pain and/or distress in vertebrate animals. The IACUC must also assess the steps that are to be taken to eliminate or minimize the potential for pain and distress and ensure that alternatives to these procedures have been considered. Because physical restraint of animals can be associated with discomfort, pain, distress, and the potential for injury, the IACUC must have sufficient information to evaluate protocols that include restraint procedures.

Definitions

Physical restraint: is defined in the NRC Guide as “the use of manual or mechanical means to limit some or all of an animal’s normal movement for the purpose of examination, collection of samples, drug administration, therapy, or experimental manipulation.” Animals are physically restrained for brief periods, usually minutes, in many research applications.

Prolonged physical restraint: is defined by the UGA IACUC as physical restraint of unanesthetized animals for 30 minutes or longer in a natural body position or 10 minutes or longer in an unnatural body position. Restraint procedures must be detailed in the animal use protocol. Prolonged physical restraint of research animals warrants placement of animals in “Animal Use Category C” (procedures that cause distress where no method is available which would alleviate these effects without interfering with the experimental results) unless shown otherwise by the investigator.

Policy

- Restraint devices are not to be considered normal methods of housing, or be used simply as a convenience in handling or managing animals.
- Prolonged restraint, or restraint of an unacclimated animal, except for purposes of acclimating the animal to the restraint device, should be avoided unless it is essential for achieving research objectives and is approved by the IACUC.
- The period of restraint should be the minimum required to accomplish the research objectives.
- When restraint devices are used, for short or prolonged periods, they should be specifically designed to accomplish research goals that are impossible or impractical to accomplish by other means or to prevent injury to animals or personnel. The use and type of restraint devices must be described clearly in the IACUC animal use protocol.
- Acclimation or training (with positive reinforcement) to restraint methods is required for studies involving prolonged restraint - unless the acclimation itself would increase the stress to the animals - and must be described in the animal use protocol. Prolonged restraint without acclimation or training must be justified in the animal use protocol.
• Frequent, documented monitoring of animals subjected to prolonged restraint is required unless the investigator can justify why this would not be compatible with the research in question. The frequency and method of monitoring must be described in the animal use protocol.
• Veterinary care must be provided if lesions or illnesses associated with restraint are observed. The presence of lesions, illness, or severe behavioral change often necessitates temporary or permanent removal of the animal from restraint.
• Animals that fail to adapt should be removed from the study. Criteria for the temporary or permanent removal of an animal from a study that requires restraint must be developed in advance of the study and be reviewed and approved by the IACUC. The development of physical or behavioral abnormalities constitutes a basis to temporarily or permanently remove an animal from a study.
• The purpose of the restraint and its duration should be clearly explained to personnel involved with the study. Personnel working with restrained animals should be trained in using the equipment properly and in handling the animals safely while causing them minimal distress.
• Alternatives to physical restraint should be considered.

References