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Popular Article

Wild Animal Restraining

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Restrain of wild animals is indicated for minor manipulation or close observation, tuberculin testing administration of injections or anaesthetics, collection of blood samples, trimming malformed claws or overgrown hooves, application of topical medications and transportation.

General Concepts

Four basic factors should be considered when selecting a restraint technique. Once these four factors are evaluated, a suitable technique can be selected:

1) Will it be safe for the person who must handle the animal?

2) Does it provide maximum safety for the animal?

3) Will it be possible to accomplish the intended procedure by utilizing the suggested restraint method?

4) Can constant observation and attention be given the animal following restraint until it has fully recovered from the physical or chemical effects?

Physical Restraint

- Most zoo animals resist being handled and resist manual restraint. Though struggling with an animal to administer treatment may do more harm than the benefit by treatment. Many procedures can be performed on unanesthetized animals while physically restrained,
- For the safety of both animals and personnel, personnel participating in capture or restrain procedures must understand their role and be aware of the behavioral characteristics and physical abilities of animals.

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- Heavy gloves protect handlers from teeth and claws when animals are manually held after capture. Care must be used to avoid excessive pressure on animals.

Methods

- Many restraint devices are designed with a "V" shape; once the animal enters, the floor is lowered and the animal's body is restrained by the "V" with its feet suspended off the ground. Whenever Possible, animals should be trained to enter rather than forced, into the restraint device.
- Small mammals and birds may be caught and restrained in long-handled hoop nets. This net must be deep enough that the animal can be confined in the blind end, with the upper part of the net twisted to prevent escape.
- Other methods of physical restraints are gauntlets, control sticks, nets, plastic tubes, plastic sheets wire fence, squeeze cages, ropes etc

Animal		**Restraint**
Mink, ferrets, squirrel, primates, hawks, falcons, parrots	-	Gauntlets
Less ferrocious species	-	Towel, nest boxes or catch pen with remote control
Wolves, raccoons, porcupine	-	Control sticks
Small rodents, primates, small cats,raccoons, foxes etc.	-	Nets of various sizes
Snakes	-	Snake sticks and plastic tubes
Turtles	-	Legs pulled out on both sides and head controlled
Feral animals/large felids	-	Squeeze cages
Bear	-	Roping them to bars of cages
Hippopotamus	-	Holding the jaws apart using ropes

Chemical Restraint

Chemical restrain is best method for large and ferocious species of wild animals and is indicated for surgical repair of traumatic injuries, captured and translocation. The drugs are delivered by dart gun or blow pipe for intramuscular injections.

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Species	Drug Used
Carnivora	
Cat and bear	Pentobarbital 30 mg/kg half dose fast & half slow
Lion	10 mg diazepam I/M followed by 200 mg ketamine
Tiger, black panther & leopard	1-1.8 mg/kg phencyclidine, 10 mg acetylpromazine & 1 mg atropin sulphate
Primates	
Small primates	Barbiturate 30 mg/kg I/V followed by chloroform for general anaesthesia
Baboon	Ketamine Hcl 11mg/kg without muscle relaxation, Xylazin 0.5 mg/ kg with muscle relaxation
Rodents	Methoxyflurane soaked in cotton swab put in glass chamber Reptiles
Reptiles	
Snake	Inhalaent anaesthesia halothane 1% +50% nitrous oxide
Python	30 mg/kg ketamine HCI I/M at region behind cloaca
Turtle	80 mg/kg ketamine Hcl I/M rapid sedation
Proboscids	
Elephants	Xylazine 400 mg I/M (0.08-0.14mg/kg), Antidote: Yohimbine (0.125 mg/kg). "Etrophine can be used with caution may causerecumbancy
Aves	Fluothane with oxygen in gas chamber & long and medium acting barbiturate 30mg/kg I/M,S/C OR I/P

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Etorphine

- Etorphine is a narcotic drug to be used with more clinical cautions. This is the synthetic derivative of opium alkaloid. Anaesthesia occurs in ten to twenty minutes,
- Recovery is slow without antidote and in such occasions, the recovery may take as much as seven hours. However, when antidote is used, the wi d animal may become mobile or ambulatory within a period of about four to ten minutes.
- The animal may have tachycardia and may either get stimulated or depressed depending on the dose response and the species of the wild animal.
- This drug is used in large sized herbivores like elephant, hippopotamus, giraffe, sambar deer etc. Large animal formulation of Immobilon contains 2.45 mg/ml Etorphine mixed with 10 mg/ml Acepromazins nxleate which is a phenothiazine derivative.
- Diprenorphine is the antidote to be used for etorphine. The standard dose is double the amount of etorphine injected.

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