

Temperature dropped slightly at the beginning of the anaesthesia and then remained unchanged. Respiratory rate increased from a mean value of 17 bpm at $t = 30$ mn up to a mean value of 40 bpm at $t = 90$ mn, then decreased to 21 bpm at $t = 180$ mn. Except for one animal, heart rate remained constant. All these physiological parameters ranged between acceptable values. Haematological analysis showed a significant decrease of Ht and RBC from respectively $41,0 \pm 2,67\%$ and $7,86 \pm 0,93 \cdot 10^6 \cdot \text{m}\ell^{-1}$ at $t = 30$ mn to respectively $34,3 \pm 2,7\%$ and $4,7 \pm 0,93 \cdot 10^6 \cdot \text{m}\ell^{-1}$ at $t = 140$ mn. Variation in physiological parameters (heart rate, respiration rate and body temperature) and clinical parameters monitored are discussed.

Two of the animals died. One showed a false deglutition at the beginning of the protocol. Death seemed to be directly related to inadequate fasting. The second showed signs of acute septicaemia eight days after translocation. To avoid such problems a 48-hour fasting is absolutely necessary. Causes of death did not seem to be directly related to the long immobilization protocol. The possible applications of the performed long-lasting anaesthesia in translocation of Arabian oryx are discussed.

THE USE OF LONG-ACTING TRANQUILLIZERS IN THE MANAGEMENT OF TRANSLOCATED ENDANGERED SPECIES

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Translocation includes mechanical or chemical capture, confinement in restricted accommodation, transportation, relocation and adaptation to an unfamiliar environment. These activities are unnatural, dramatic, traumatic and stressful to most wild animals. Under confinement in unnatural conditions animals become aggressive and territorial, display dominant and hostile tendencies and often wound each other fatally. Animals grouped together in unfamiliar captive surroundings have conflicts with fellow animals and do not adapt to the enforced confinement. While confined under "pen or boma stress", the affected animals refuse to eat, attempt to escape and die from exhaustion, stab wounds, infections or starvation. Long-acting tranquillizers have strong sedative attributes and prolonged sedation and are invaluable for controlling psychomotor excitement, stress, injuries and aggression in recently-captured animals; for adapting wild animals to new environments; calming animals during lengthy transportation by road, sea or air; minimizing mortalities during relocation to unfamiliar destinations; habituating recently-captured wild animals to confinement in quarantine stations and at game auctions. Long-acting tranquillizers are administered in a single dose to give a therapeutically effective tissue concentration lasting for several days. The most beneficial effects are a modification of the animal's disposition towards the surroundings and other animals and the animals start eating and drinking sooner than animals that were not tranquillized. The use of long-acting tranquillizers must not be regarded as a substitute for inferior capture, holding and transportation techniques and endangered animals must always be captured competently and professionally with minimal stress by experienced personnel. Species that have been successfully tranquillized for various translocation procedures are the following : Lichtenstein's hartebeest; roan antelope; sable antelope; Cape buffalo; tsessebe; black and white rhino. Dosages for these species are discussed.

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