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THE USE OF "ROMPUN" (VA 1470) BAYER ON THE WHITE RHINOCEROS

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Rompun is a new powerful and reliable sedative with an additional muscle relaxant action, which is now on the South African market. It has been used on cattle, horses and some wild animal species. Rosenberger et al. (1969), Keller & Muller (1969), and Mulling & Henning (1971).

No excitement phase has been observed either during induction or recovery, and it is well tolerated at the recommended dosages. After intramuscular administration in cattle Rompun takes effect within 5 to 15 minutes, and depending on the dosage level, persists for half an hour to several hours. If desired, a second dose may be administered 10 to 30 minutes or more after the first.

In small doses Rompun simply makes the patient docile and easy to manage. Larger doses produce deep sedation and cause the animal to quietly lie down.

Rompun was used as either 2% or 10% solutions (20 mg/cc and 100 mg/cc respectively). It may be administered either intramuscularly or intravenously.

Alone, the recommended dosages in cattle vary between 0,05 and 0,3 mg/kg depending upon the depth of sedation required. Horses require 1 to 3 mg/kg. The dose for wild ruminants varies between 0,15 mg/kg in Indian Buffalo, to 6,7 mg/kg in Fallow Deer (Khamis & Saleh, 1970 and Lindau and Gogas, 1969).

Rompun can be used in combination with local anaesthetics, other analgesics, or narcotics. Wild life workers have found that when used in combination with Etorphine (M99) on eland, kongoni and wildebeest the immobilization time is shortened by about half (Denney, pers. comm.).

A trial was undertaken to investigate the effect of Rompun alone, and in combination with M99, upon the white rhinoceros *Ceratotherium simum* (Burchell). Initially trials were carried out upon rhinos in the pens at Umfolozi Game Reserve, followed by others darted in the wild in the same reserve.

Table 1 gives the behaviour of three rhinos in the pens following the administration of various doses of Rompun.

In treating the four rhinos shown in Table 2, 2 ml capacity darts were used in each case, except No. 4 which received a 3 ml dart. A 10% solution of Rompun (100 mg/ml) and an M99 solution containing 5 mg/ml were used in each case. Each animal received 250 mg Lethidrone i/v. Recovery was normal.

Two ml capacity darts were used for rhino numbers 1 to 4, and 5 ml for numbers 5 and 6, shown in Table 3. A 10% solution of Rompun and a M99 solution containing 5 mg/ml were again used in each case. Each animal received 250 mg Lethidrone as an antidote i/v. Table 3 gives the behaviour of six rhinos immobilised in the wild state

following the administration of various doses of M99, Rompun, and in four cases hyoscine hydrobromide also.

Referring to those animals darted in the bomas, using Rompun only (Table 1), a dose of 0,25 to 0,50 mg/kg produced an excellent state of tranquillity. The animals were capable of standing, but were inclined to lie down if everything was quiet nearby. With stimulus the animals were alert but listless. At the dose of about 0,73 mg/kg the rhino was unsteady on its feet, and remained lying down if not greatly disturbed. In fact, it was possible to quietly walk up to the recumbent animal and remove the dart from its neck without disturbing it.

Using a combination of M99 and Rompun on boma rhinos (Table 2) No. 1 was insufficiently anaesthetised, but Nos. 2, 3 and 4 were satisfactory. A dose of 0,5 mg M99 by itself would normally be insufficient to immobilise a 650 kg rhino, but one mg M99 would be satisfactory for one 600 to 800 kg. The time between darting and recumbency of 12 to 15 minutes for Nos. 2, 3 and 4 was not appreciably shorter than that expected if M99 only had been used. In the bomas the rhinos were a lot less excited than wild ones become at the time of darting, and were not chased on horseback by Game Guards, following injection.

TABLE 1. White Rhinos darted with Rompun alone in the Bomas (Umfolozi Game Reserve). The minutes indicated under "Results" represent the time following darting.

Rhino No.	Estimated Weight kg.	Sex	Total Dose mg.	Approx. mg/kg.	Dart Capacity ml.	Results	
1	800	M	200	0,25	2	5 mins.	– Slow blinking.
						10 "	– Listless. Alert.
						15 "	– Lay down – rose quietly with stimulus.
2	400	F	200	0,50	2	5 "	– Slow blinking.
						10 "	– Very listless. Standing with head resting on the ground.
						20 "	– Unsteady, but still standing.
3	550	M	400	0,73	10	6 "	– Staggering. Leaning against tree.
						12 "	– Lay down. Got up slowly with stimulus.
						15 "	– Lay down again.
						122 "	– Removed dart while lying. Did not get up.

TABLE 2. White Rhinos darted with a combination of Rompun and M99 in the bomas (Umfolozi Game Reserve).

Rhino No.	Estimated Weight kg.	Sex	Total Dose M99 mg.	Total Dose Rompun mg.	Approx mg/kg Rompun	Results	
1	650	M	0,5	190	0,30	15 mins.	Tranquil, but not lying.
						20 "	Leaning in a corner of boma.
						55 "	Still in same position.
2	800	F	1,5	170	0,21	12 "	Lying down. Anaesthetic excellent.
3	600	F	1,0	180	0,30	12 "	Lying down. Anaesthetic excellent.
4	800	M	1,0	200	0,25	15 "	Leaning forward, supported by a tree fork.

Of those animals darted in the wild state using the routine capture method (Table 3) Nos. 1 and 2 were not immobilized, and only became recumbent after being restrained by means of a rope tied to a hind leg. Nos. 3 to 6 were satisfactorily anaesthetised. These latter animals received hyoscine hydrobromide in the drug mixture, and a higher dose per kg body weight of Rompun. 1 mg M99 and 25 to 50 mg hyoscine will immobilize a 700 to 850 kg rhino satisfactorily in 10 to 20 minutes. The times recorded for Nos. 3 to 6 of eight to 20 minutes did not reduce this time appreciably. On the other hand the quality of anaesthesia was greatly improved when Rompun was included in the mixture, and each animal rose and entered the crate following the intravenous administration of the antidote (Lethidrone).

In my opinion the conclusions to be reached following these trials are:

i) When Rompun was combined with M99, with or without hyoscine, the period between darting and recumbency was not appreciably reduced as had been hoped, and reported by other workers using similar mixtures upon wild ruminants. (The white rhino is not a ruminant). Rompun doses of higher then 0,48 mg/kg could be used with M99 and hyoscine with safety, and might reduce the recumbency time a little, but the animal would not be able to rise and enter the crate quickly following the administration of the antidote. It was therefore felt that nothing would be gained by including Rompun in the drug mixture for the routine capture of white rhinos.

TABLE 3. White Rhinos darted with a combination of Rompun and M99 in the wild state (Umfolozi Game Reserve).

Rhino No.	Estimated Weight kg.	Sex	Total Dose M99 mg.	Total Dose Rompun mg.	Approx mg/kg Rompun	Hyoscine		Results
1	1000	F	1,0	180	0,180	Nil	30 mins.	Not lying down. Roped hind leg.
							32 "	Struggling against rope.
							35 "	Down. Poor Anaesthetic.
2	1000	F	1,0	180	0,180	Nil	Behaviour similar to No. 1.	
3	700	M	1,0	180	0,26	50	5 mins.	Staggering.
							8 "	Down.
4	850	F	1,0	180	0,21	50	7 "	Staggering.
							20 "	Down.
5	850	M	1,0	360	0,42	25	10 "	Down
6	750	F	1,0	360	0,48	25	7 "	Staggering.
							13 "	Down.

ii) When Rompun was used alone for sedating rhinos in the pens the behaviour was excellent. The drug would therefore be most useful to those people responsible for the care of rhinos during translocation, especially on overseas voyages. A dose of 0,25 to 0,50 mg/kg should be used initially, and then increased or decreased as necessary.

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