التخدير بالابنتول فى الكلاب

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تم تجربة استخدام الابنتول كمخدر فى الكلاب. وقد أحدث العقار قيء شديد مع تقلصات عضلية عند ما حقن بمفرده.

وكان التخدير فى الحيوانات التى حقنت بمهدئات قبل الابنتول مأمونا وذو تأثير قصير المدى وذلك فى عدد من العمليات الجراحيه المختلفة.

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EPONTOL ANAESTHESIA IN DOGS

(With 2 Tables)

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SUMMARY

Epontol (Bayer)is a recent drug introduced to veterinary practice,available literature lacks data on this type of anaesthetic. Our work on Epontol showed that: (1) Animals injected with Epontol alone showed severe vomition and muscular tremors. (2) Animals premedicated with chlorpromazine HCl obtained peaceful anaesthesia of short duration. (3) It is easily to perform some operations under the effect of Epontol.

INTRODUCTION

Epontol (Bayer)* is recently used in veterinary anaesthesiology, for induction of general anaesthesia of a short duration.

Epontol has been studied in dogs by various authors as a potent anaesthetic action with short duration (KREUSCHER,1965; PODLESCH and ZINDLER,1965; DOENICKE et al. 1966 and HARRFEDLT, 1973). They recorded that only dogs showed a relatively longer duration of anesthesia. The authors also reported that the drug has no after effect or side effect and the drug has an adequate depth of anaesthesia for a period of 3-5 minutes and rapid beak-down, and thus the drug used for minor operations such as reduction of fractures, and short gynaecological procedures.

* Regostered trademark of Bayer AG, Leverkusen, W. Germany.

GOLDMAN and KENNEDY (1964) studied the effect of Epontol as short-acting intravenous anaesthetic in human dental practice.

TANTAWY (1978) stated that Epontol in sheep and goat slowly injected intravenously and premedicated with chlorpromazine HCl (Neurazine, Misr)* produced a stated of general anaesthesia, but of short duration.

The aim of this work is to estimate the dose of Epontol in native dogs when given alone or otherwise after premedication with a tranquilizer.

MATERIALS AND METHODS:

Twenty-four native dogs of both sexes ranging in age from 6 months to 4.5 years were used. All animals were clinically examined and kept under observation for one week to eliminate the presence of infections or other diseases. The dogs were divided into three groups, each of 8 animals.

The first group received Epontol alone intravenously in various increasing doses (0.5-5 mg/Kg b wt). The second group received Neurazine as premedication intramuscularly in a dose of 4 mg/Kg b wt. The anaesthetic was then given intravenously 15 minutes later, also in various increasing doses. During injection the pedal, ear, skin, anal as well as the palpebral reflexes were examined untill they are abolished, when the injection is stopped. Then, the dose were calculate. Animals of the third group were used for performance of operations under anaesthetic effect.

* Registered trademark of Misr Co.for Pharm.industries, Egypt.

RESULTS AND DEISCUSSION

The obtained results by i.v. injection of Epontol alone without premedication in any dose produced severe vomition in all dogs as well as muscular tremors. These results agreed with the results of DOENICKE et al. (1966), GOLDMAN and KENNEDY (1964) and HARRFELDT (1973). They attributed this phenomena to the influence of the reflex mechanism and was definitely neither a manifestation of centrally eliciated convulsions nor a sign that the level of anaesthesia was too shallow. Occurrance of vomition is a special charcter of Epontol, also involuntary muscle movements, muscular fibrillation or tremor were relatively frequent with Epontol.

The second group which animals were premedicated with Neurazine and received Epontol in an average dose of 36.9mg/Kg b w, smooth anaesthesia was noted without any side effect. The duration and the dose (Table 1) varied widely with individual animals, reaching about 19.4 minutes in average.

After recovery when the animals regained all reflexes, the animals went into deep sleep for an average period of 90 minutes, mostly due to the tranquil effect of Neurazine.

Concerning the operations performed in order to detect the efficiency of the anaesthetic drug, it was noticed that it easy to perform nephrectomy, castration, ovariectomies, enterotomy, gastrotomy, cystotomy and docking (Table 2).

The operation will be performed directly after injection of Epontol and the animal has been previously prepared for operation before injection commenced. The surgery was done as quickly as possible due to the short duration of the anaesthesia provided by Epontol.

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Table 1

Results of intravenous Epontol following premedication with Neurazine

No. of animals	Age	Sex	Kg b w	Dose (ml)	Duration (minute)
1	6 months	female	15	7	15
2	2 years	male	20	9.5	15
3	5 years	female	20	20	25
4	2 years	female	15	18	20
5	6 months	male	18	15	10
6	5 years	male	25	20	25
7	2 years	female	15	10	25
8	4 years	male	20	10	20

Table 2

Rrsults of operations performed under the effect of Epontol Anaesthesia.

No.of animals	Type of operation	Sex	age	Kg b w	Dose (ml)	Duration (minutes)
9	Nephrectomy	male	2 y	25	19	25
10	Castration	male	4 y	30	22.5	15
11	Ovariectomy	female	2 y	15	9.2	25
12	Enterotomy	female	6 m	17	12.2	20
13	Enterotomy	male	4 y	20	12	20
14	Gastrotomy	female	3 y	20	18	25
15	Cystotomy	female	1 y	15	10.5	20
16	Docking	male	3 y	16	14.8	12