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List of Abbreviations

BCG	Bromocresol green
EDTA	Ethylene diamine-tetra-acetic acid
No.	Number
PCV	Packed cell volume
Hb	Haemoglobin
RBCs	Red blood cells
WBCs	white blood cells
SD	Standard deviation
TPP	Total plasma protein

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Abstract

This study was conducted to identify the underlining aetiological agents of equine) horses and donkeys) colic and to investigate the clinical, haematological and biochemical changes that may occur during colic period, and to evaluate different treatment protocols in the diseased animals according to the severity of colic either namely: Flunixin meglumine or Ketoprofen. A total number of 80 draught horses and 11 draught donkeys (colic group) were clinically examined in Nyala, South Darfur State, Sudan from 1/1/2012 to 1/10/2014 (22 months). Animals with colic were assigned into mild, severe and recurrent subgroups according to the severity of pain and degree of change in clinical parameters. For the purpose of normal standard values six donkeys and six horses (control group) were included in the study. Causes of colic were identified from the case history of the colic in equine and/or by the test of its food before colic, clinical parameters were conducted using standard methods. PCV, Hb, white blood cells differential count were recorded also. Plasma glucose, total protein, albumin, urea, sodium, potassium, and calcium were measured using spectrophotometry methods. Pulse rate, capillary refill time and rectal temperature significantly increased in severe colic subgroup, but they did not change in light subgroup, whereas respiration rate increased in whole colic group. PCV and Hb were significantly increased in animals with severe colic, but no differences were found between mild subgroup and control group; total white blood cells number significantly increased in colic group, but no differences were noticed in the white blood cells differential count of colic group except increasing of basophiles, in colic group. No changes were noticed in sodium, urea, total protein and albumin between control group and colic group; globulin and glucose significantly increased in colic group,

but calcium and potassium decreased in the same group. Flunixin meglumine was found better than ketoprofen in controlling pain of light and severe colic cases.

بسم الله الرحمن الرحيم

المستخلص

هدفت هذه الدراسة الى معرفة اسباب المغص فى الفصيله الخيليه (الحصين والحمير), بالاضافه الى التعرف على اعراض المغص السريره, ومعرفة التغيرات الدمويه والبيوكيميائيه التى تحدث اثناء دوره المغص, وتقويم دور الفلونكزين ميغلومين والكتوبروفين فى ازالة الالم حسب شدة الاصابه.

تم فحص 80 من حصين الجر و 11 من حمير الجر (مجموعة المغص) فى مدينة نيالا, ولاية جنوب دارفور, السودان فى الفتره من 1/1/2012 الى 1/10/2014م (22 شهر). تم تقسيم مجموعة المغص الى تحت مجموعات شملت تحت المجموعة المصابه بالمغص الخفيف, تحت المجموعه المصابه بالمغص الشديد, وتحت المجموعه المصابه بالمغص الراجع وذلك بناءا على شدة الالم و درجة التغير فى العوامل السريره. بغرض الحصول على قيم قياسييه تمت اضافة 6 من الحمير و 6 من الخيول الى الدراسه.

تم التعرف على مسببات المغص اما من تاريخ الحاله المرضيه او من خلال التعرف على بقية الطعام الذى تناوله الحيوان قبل اصابته بالمغص. القراءات السريره تم اجراءها بطرق قياسييه. حجم الهيموغلوبين, عد كريات الدم الحمراء, (PCV الخلايا المتكده والعد الكلى لكريات الدم البيضاء, العدالتمييزى لكريات الدم البيضاء تم قياسها باستخدام طرق مختبريه معتمده. جلوكوز البلازما, البروتين الكلى, الاليومين, اليوريا, الصوديوم, البوتاسيوم والكالسيوم تمت قياستهم بواسطة جهاز المطياف الضوئى.

معدل النبض ورجوع الدم فى الاغشيه المخاطيه بالاضافى الى درجة حراره المستقيم ارتفعوا بصورة معنويه فى تحت المجموعة المصابه بالمغص الشديد, لكنهم لم يتاثروا فى تحت المجموعه المصابه بالمغص الخفيف, بينما معدل التنفس ارتفع فى كل المجموعه المصابه بالمغص.

حجم الخلايا المرصوصه والهيموغلوبين ارتفعا بصورة معنويه فى تحت المجموعه المصابه بالمغص الشديد لكن لم يلاحظ اختلاف فى قراءتهما بين تحت المجموعه المصابه بالمغص الخفيف ومجموعه التحكم.

العدد الكلى لكريات الدم البيضاء ارتفع بصورة معنويه فى مجموعه المغص مقارنة مع مجموعه التحكم لكن لم يلاحظ اختلاف معنوى فى نسب الخلايا فى العد التمييزى عدا نقصان عدد الخلايا القاعديه فى مجموعه المغص. لم يلاحظ تغيير فى كل من الصوديوم، اليوريا، البروتين الكلى والالبومين بين مجموعه المغص و مجموعه التحكم بينما انخفضت مستويات الكالسيوم و البوتاسيوم فى مجموعه المغص.

وجد ان الفلونكسين ميغلومين افضل من الكيتوبروفين فى التحكم على المغص الخفيف والشديد.