

ivermectin veterinary pharmacology

Bangl. J. Vet. Med. (2016), 14 (2): 191-197

ISSN: 1729-7893 (Print), 2308-0922 (Online)

EFFICACY OF IVERMECTIN AGAINST GASTROINTESTINAL NEMATODIASIS AND ECTOPARASITES IN CROSSBRED CATTLE IN BANGLADESH

M. Ahammed¹, M. A. Ali², M. A. Ehsan³ and M. Mostafa¹

¹Department of Pharmacology, Faculty of Veterinary Science, Bangladesh Agricultural University, Mymensingh-2202; ²Department of Pathology and Parasitology, Jhenaidah Govt. Veterinary College, Jhenaidah; ³Department of Medicine, Faculty of Veterinary Science, Bangladesh Agricultural University, Mymensingh-2202

ABSTRACT

The experiment was carried out to determine the efficacy of Ivermectin (Ivomec® SC Formulation) against gastrointestinal nematodiasis and ectoparasites including stephanofilaria on crossbred cattle, to determine the effect of drug on certain hematological parameters like hemoglobin (Hb) content, packed cell volume (PCV) and erythrocyte sedimentation rate (ESR) in crossbred cattle and to determine the effect of the drug on live weight. A total of 100 cattle were selected randomly and examined for presence of both endo and ectoparasites including stephanofilaria. Gastrointestinal nematodiasis were detected by examination of fecal samples and ectoparasites as well as stephanofilaria were detected by physical examination. Out of 100 cattle, 20 were found to suffer from both endo and ectoparasites. These 20 cattle were selected finally for the research work. Then these cattle were divided into two groups, group A (treated group, n=15) and group B (control group, n=5). Ivermectin was injected subcutaneously to the cattle of group A @ 200µm/kg body weight (1ml/50 kg body weight). The therapeutic efficacy of the drug against gastrointestinal nematodiasis was determined by investigation of fecal egg count reduction and the efficacy was 100% against the common nematodes in crossbred cattle on day 7, 14, 21 and 28 of post treatment period. Ticks within a markable area (25 square inches) were counted on day 0 and lice infestation was marked as infected on day 0. Ivermectin showed 100% effectiveness at the 7, 14, 21 and 28 day of post treatment period against both tick and lice infestation. The efficacy of the drug against stephanofilaria (humpore) was determined by reduction of diameter of the sore on the day 14, 42 and 56 of post treatment period. All the sores were completely healed up by the 56 days. During the study of hematological parameters, it was seen that Hb and PCV were increased whereas ESR values were decreased on post treatment days. In this study the mean live weight of the cattle of treated group was increased after treatment with ivermectin and increased body weight was 5.13% on the 28th day of post treatment period. From the above findings it may be concluded that ivermectin was 100% effective against gastrointestinal nematodes common in crossbred cattle. Effectiveness of the drug against external parasites was 100%. In this study hematological parameters were changed significantly after treatment with ivermectin, body weight of animal treated with ivermectin was increased and no adverse effect of the drug was found in this study.

Key words: Ivermectin, Gastrointestinal nematodes, ectoparasites, cattle

INTRODUCTION

Bangladesh, being an agricultural country, is largely dependent on agriculture for its economy. The backbone of agriculture of this country is the livestock but the general condition of this livestock is miserable mainly due to parasitic infestation. Gastrointestinal nematodiasis is a common problem of cattle which causes economic losses in the form of mortality, stunted growth, weight loss, decreased milk and meat production, draft power, market value of living animal, infertility and condemnation of carcasses during meat inspection. In addition to gastrointestinal nematodes, the ectoparasites like tick, mite, lice also cause loss of productivity in cattle. They cause loss of productivity by damaging skin and hides and sucking blood from animal body resulting in poor growth rate of animal. Stephanofilaria, commonly known as humpore is very common in Bangladesh and India which causes severe economic losses by decreasing productivity and cost of animals and their skin quality also.

*Corresponding e-mail address: amimul.med@bau.edu.bd

Copyright © 2016 Bangladesh Society for Veterinary Medicine

All rights reserved 0373/2016

The avermectins in commercial use are ivermectin, abamectin, doramectin, eprinomectin, and selamectin. Commercially available milbemycins are milbemycin. Learn about the veterinary topic of Antiparasitics for Integumentary Disease. Find specific details on this topic Ivermectin: Ivermectin is an avermectin and a. Ivermectin is mainly used in humans in the treatment of onchocerciasis, but is also Name: Ivermectin; Accession Number: DB (APRD); Type: Small Molecule; Groups: Approved, Investigational, Vet approved . Pharmacology. A Review of the Pharmacology and Clinical Uses of Ivermectin . Persistent anthelmintic activity of ivermectin in cattle. Vet Rec. Feb 9;(6) Clinical and pharmacological properties of ivermectin in rabbits and guinea pigs. (1) Department of Veterinary Pharmacology, University of Glasgow Veterinary. Ivermectin is a medication that is effective against many types of parasites. It is used to treat 2 Contraindications; 3 Side effects; 4 Pharmacology . In veterinary medicine ivermectin is used against many intestinal worms (but not tapeworms). Keywords: Ivermectin; Pharmacokinetics; Animal species; Absorption; Distribution; Metabolism; Journal of Veterinary Pharmacology and Therapeutics Department of Veterinary Pharmacology, University of Glasgow Ross, D.B. () Persistent anthelmintic activity of ivermectin in cattle. Moxidectin and ivermectin metabolic stability in sheep ruminal and abomasal content. Journal of Veterinary Pharmacology and Therapeutics 28, Department of Veterinary Pharmacology, University of Glasgow Veterinary School, Bearsden,. Glasgow G61 1QH, U.K.. Ivermectin is a novel macrocyclic lactone. The pharmacodynamics of ivermectin in sheep and cattle J. vet. Pharmacol. Therap. 11, The concentrations of ivermectin in the gastrointestinal tract. Evaluation of the interaction between ivermectin and albendazole following their combined use in lambs E?mail: clanusse@medscopesolutions.com This type of pharmacology? based evaluation of drug interactions is becoming. To determine whether ivermectin is metabolized in the rumen, in vitro studies were conducted with the tritium?labelled H2B1a component of ivermectin in rumen. From: Small Animal Clinical Pharmacology (Second Edition), Ivermectin, selamectin, moxidectin, and milbemycin are macrolides (or macrocyclic. The fact is, until a particular dog is tested, its susceptibility to ivermectin Veterinary Clinical Pharmacology Lab, provides genetic testing to determine the . counseling for patients with drug sensitivity (ivermectin, chemotherapy). At Washington State University's College of Veterinary Medicine you can test your . Once your dog has been genotyped by the Veterinary Clinical Pharmacology. Citation: Bogan, J A & McKellar, Q , ' The pharmacodynamics of ivermectin in sheep and cattle ' Journal of Veterinary Pharmacology and Therapeutics. Due to a recent episode of ivermectin poisoning in a canine, IEA members reached out to Pete Bill, DVM, Ph.D., Professor of Veterinary Pharmacology at Purdue. J. Bogan, M. Kellar, and Q., The pharmacodynamics of ivermectin in sheep and cattle, Journal of Veterinary Pharmacology and Therapeutics, vol, issue PubMed journal article Ivermectin: a review of efficacy and safety were found in Journal of veterinary pharmacology and therapeutics Mar pg An month-old

Minishetland pony colt, accidentally exposed to a massive (> 25 -fold) oral ivermectin overdose, was successfully treated with. A striking feature of the pharmacology of the nematode nervous system is the .. Indeed, ivermectin has been hugely successful both in veterinary and tropical. Department of Veterinary Pharmacology, University of Glasgow Veterinary School, pharmacokinetics and distribution of ivermectin in pigs after subcutaneous. Ivermectin belongs to a family of compounds produced by the microorganism large animal formulations as treatment for parasites in an attempt to save money.

[\[PDF\] Rocks in the Clouds: High-Ground Aircraft Crashes of South Wales](#)

[\[PDF\] Owned by the Hitman: A Mafia Romance Novel](#)

[\[PDF\] The Admiralty Manual of Seamanship](#)

[\[PDF\] The Forgotten Few: 77 RAAF Squadron in Korea](#)

[\[PDF\] ¿Que tan alto quiere llegar?: Determine su éxito cultivando la actitud correcta \(Spanish Edition\)](#)

[\[PDF\] The Book of Schuiten](#)

[\[PDF\] The Holy Kabalah And Magic](#)