Systematic Review


ABSTRACT

While some *Ehrlichia* species, such as *E. ruminantium* and *E. minasensis*, are not popular even among veterinarians, they can infect cattle. The current study aimed to review studies on *Ehrlichia* spp. to evaluate its worldwide molecular prevalence, given the lack of information about bovine ehrlichiosis and the lack of previous systematic reviews and meta-analyses on this subject. In order to determine the molecular prevalence of *Ehrlichia* spp. in cattle, a systematic review of the literature was conducted in three databases. A meta-analysis with a random-effects model was performed to calculate the pooled prevalence with 95% confidence intervals (95% CI) and measures of heterogeneity were reported. Subgroup analyses were performed in terms of *Ehrlichia* species, country, and regions. The literature search yielded 1051 papers until August 1, 2019, with 71 studies entirely eligible for review. The pooled molecular prevalence for *Ehrlichia* at the individual level (N = 6232) was 2.3% (95% CI: 1.7-2.9%) with the highest value of 82.4%. Studies identified the highest pooled molecular prevalence of 6.6% (95% CI: 0.6-12.7%) for *E. canis*, followed by *E. ruminantium* (n = 4695, 75.33%) 52 studies, with 1.7% (95% CI: 1.1-2.3%) and *E. chaffeensis* with 1.5% (95% CI: 0.0-0.3%). Moreover, the obtained result was indicative of only one study addressing *E. minasensis*. As the findings suggested, heartwater (*E. ruminantium* infection) is a notifiable disease of domestic and wild ruminants, recorded by the World Organization for Animal Health. There is a possible risk of endemic heartwater in the Americas due to the climatic features. Furthermore, *E. minasensis*, *E. chaffeensis*, and *E. canis* were observed in cattle although the two last species could be a molecular misidentification with regard to their phylogenetic relationships with *E. minasensis*. 
Uses of Immunoglobulins as an Antimicrobials Alternative in Veterinary Medicine.

Abd El-Ghany WA.


ABSTRACT
As a result of increasing the resistance to antimicrobials in the field of veterinary medicine that reflects on human health, there is a great demand to use some drug alternatives. The application of avian immunoglobulins (IgY) is regarded as an important alternative strategy. The IgYs have been produced by several techniques and applied for animals using different methods. In addition, egg yolk IgYs have many advantages over blood type ones. There are many uses of IgYs in veterinary medicine. They have been used for the prophylaxis and treatment of different infections especially the enteric ones in cattle, pigs, rabbits, dogs, rats, mice, and fish species. Moreover, several studies showed the importance of IgY for competing for the \textit{in vivo} enteric pathogens in poultry and the \textit{in vitro} foodborne pathogen. Therefore, it is important to put a spotlight on applications of egg yolk immunoglobulins IgY in veterinary medicine to overcome the problems of antimicrobials’ resistance as well as the tissue residues that adversely affect human health.

\textbf{Keywords:} Advantages, Animals, Poultry, Production, Yolk antibodies

Changes of Body Condition Scores, Serum Biochemistry and Liver Triacylglycerol in Periparturient Holstein Friesian Dairy Cows Raised in a Small-Holder Farm.

Triwutanon S and Rukkwamsuk Th.

Research Paper
ABSTRACT

This Negative energy balance (NEB) inevitably occurs in periparturient dairy cows. Its consequences are related to reduced cows’ performances. Most studies concerning the NEB are performed in dairy cows of large-scale farms, particularly raised under non-tropical climate. The current study aimed to investigate the changes in body condition score, serum biochemical parameters, and liver triacylglycerol (TAG) accumulation in periparturient Holstein Friesian dairy cows raised by a small-holder farm. In this regard, 10 healthy pregnant dairy cows in a small-holder farm were recruited for the study. At 4 weeks before and 1, 2, 4, and 8 weeks after calving, blood samples were collected for determination of glucose, non-esterified fatty acid (NEFA), β-hydroxybutyrate (BHBA), and insulin-like growth factor-I (IGF-I) concentrations. BCS was evaluated at 4 weeks before and 2 weeks after calving. Liver samples were collected 4 weeks before and 2 weeks after calving to determine TAG concentration. Results revealed that serum NEFA and liver TAG concentration were elevated postpartum. Serum BHBA concentrations increased postpartum and the concentration indicated that dairy cows entered NEB condition as type I ketosis with a longer period. Serum IGF-I concentrations and BCS did not differ between before and after calving. In conclusion, dairy cows raised under small-holder tropical conditions suffered from serious NEB, though the cows had low milk production, as compared with the commercial non-tropical condition.

Keywords: Blood biochemistry, Dairy cow, Liver triacylglycerol, Negative energy balance, Small-holder farm
The results of the current study showed that colostrum of dams that gave birth to male fetus had a higher total protein, fat, and lactose. Additionally, vaccination improved the same colostrum components except for IGF-1, which was not positively influenced by the vaccination. Generally, the vaccination improved the growth performance, immune response, and antioxidating activity of the broiler chickens treated with natural kaolin. Kaolin supplementation improved the following:

- Growth performance
- Immune response
- Antioxidating activity
- Bone mineralization

The use of kaolin as an inert ingredient in feed has been very common in the poultry industry. The present study aimed to investigate the effects of different inclusion rates of Egyptian kaolinite in broiler chickens' diet on growth performance, immune response, some blood hormones, colostrogenesis, and bone development. A total of 240 unsexed one-day-old Avian 48 broilers were randomly assigned to four equal groups of 60 birds, and each group was subjected to a diet containing 0% kaolin (control), 1.8%, 3.6%, and 5.4% kaolin in the diet. Treatment groups were fed the basal diet, which was supplemented with kaolin at various rates. The obtained data revealed that kaolin addition at the dose of 1.8% and significantly improved the average feed conversion ratio and efficiency of energy. The use of kaolin as an inert ingredient in feed has been very common in the poultry industry.
ABSTRACT

Improvised reproductive characteristics female guinea pig

Figure 1: Effects of ethanolic extract of Dichrostachys glomerata on sperm level of expression.

Keywords: M. musculus, Povidone-iodine.

Considering the PDF

[XML]

[Google Scholar]


Tekelan Leaves (Chromolaena odorata) Infusion and 10% Povidone-Iodine on Incision Wound Healing Process of Mice (Mus musculus)


Tekelan Leaves (Chromolaena odorata) Infusion and 10% Povidone-Iodine on Incision Wound Healing Process of Mice (Mus musculus)


ABSTRACT

Improvised reproductive characteristics female guinea pig

Figure 1: Effects of ethanolic extract of Dichrostachys glomerata on sperm level of expression.

Keywords: M. musculus, Povidone-iodine.

Considering the PDF

[XML]

[Google Scholar]


Tekelan Leaves (Chromolaena odorata) Infusion and 10% Povidone-Iodine on Incision Wound Healing Process of Mice (Mus musculus)

Phenotypic Study on the Bacterial Isolates from Equine with Respiratory Disorders

Nehal MF, Osman KM, Azza NF, Shaimaa RAA, Soumaya SAS, Shahein MA and Ibraheem EM.


ABSTRACT

The current study aimed to detect antibiotic-resistant bacteria in equine in Egypt. A total of 203 associated with MDR development in the equine health sector of Egypt. The predisposing Upper respiratory tract infection and pneumonia in foals are primarily caused by a bacterial indiscriminate and extensive use of antibiotics. In conclusion, resistance monitoring data and...
**Evaluation of Prophylactic and Anticoccidial Effects of Black Seed and Garlic Extracts in Rabbits.**


---

**Evaluation of Sensory Quality and Nutritional Value of Fish Cakes (Perkedel) Made by *E. magna* to Minimize the Economic Losses caused by *E. magna.***


---

**Evaluation of Sensory Quality and Nutritional Value of Fish Cakes (Perkedel) Made by *E. magna* to Minimize the Economic Losses caused by *E. magna.***

Rabbits fed with 1% Black Seed (B. seed) and 1% Garlic (G. treat) feed had more beneficial effects, compared to black seed extract. Therefore, it is recommended to use garlic pretreatment.
Identification of Somatic Antigens of Adult Fasciola gigantica Isolated from Bali Cattle.

Sriasih M and Munjizun A.


ABSTRACT

In most tropical countries, such as Indonesia, fasciolosis is generally caused by Fasciola gigantica known as tropical liver fluke. However, most fasciolosis serodiagnostic tests have been developed solely for diagnosing fasciolosis caused by Fasciola hepatica (non-tropical liver fluke), and very few have been specifically designed for F. gigantica. The aim of this study was to determine the profile of antigenic proteins from the somatic extract of F. gigantica isolated from Bali cattle (Bos javanicus). The liver flukes were collected from a slaughtering house in Mataram, Indonesia. The somatic extracts were prepared by homogenizing in buffers containing 0.05 M NaCl, 0.02 M PMSF, and 0.05% Triton X-100. The characterization of the somatic extract proteins was performed using one-dimension gel electrophoresis and followed by Western blotting to determine the profile of its antigenic proteins. There were 14 bands of the somatic extracts with an estimated molecular weight ranging from 8 to 105 kDa shown on the gel electrophoresis. The results of the Western blot show that there were five prominent protein bands. Three out of five prominent antigenic proteins with molecular weights of 8, 27, and 33 kDa are promising to enrich the existence of antigens that have immunodiagnostic value for fasciolosis. Therefore, further studies are required to examine more deeply the potency of those three antigenic somatic proteins of F. gigantica.

Keywords: Bali cattle, F. gigantica, Immunodiagnostic, Somatic extract, Western Blot