Molecular Analysis of *Coxiella Burnetii* by Isocitrate Dehydrogenase Gene Sequence-Based Typing and PCR-RFLP in Isfahan, Iran.

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ABSTRACT

In the recent years, considerable advances have been made in the detection and genotyping of *Coxiella burnetii*, the causative agent of Q fever. The selection of appropriate genotyping method has enabled description of the clonal diversity of *C. burnetii* around the world. Since, in the place of study, *C. burnetii* genotyping has not been done, the *icd* gene Restriction fragment length polymorphism (RFLP) and sequence-based typing for differentiation between the genomic detected *C. burnetii* from the various sources and compared the two methods is used. In an observational study, a total of 15 genomic positive cases of *C. burnetii* infection from different sources in Isfahan province (Central Iran) were enrolled and underwent two genotyping methods: the *icd* gene PCR-RFLP and *icd* gene sequence-based typing. The degree of similarity between the *icd* gene sequences was high (98.3-100%). In compare with *C. burnetii Nine Mile* *icd* gene sequence, the nucleotide sequences were different at 11 positions, which resulted in 7 differences in the amino acid sequences. After digesting the 370 bp amplified *icd* gene fragments all the samples indicated only one band of 370bp, while amplified *C. burnetii Nine Mile strain* *icd* gene were digested into two bands with sizes of 221bp and 149bp. The results of two genotyping methods matched together. Used methods in present study were cheaper and easier than new methods and they can used for detection of acute and chronic phases of
infection.

**Keywords:** *Coxiella burnetii*, Isocitrate dehydrogenase, Iran, Restriction fragment length polymorphism, Sequence-based typing

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The Protective Role of Date Palm (*Phoenix Dactylifera* Seeds) against Aflatoxicosis in Broiler Chickens Regarding Carcass Characteristics, Hepatic and Renal Biochemical Function Tests and Histopathology.

Abdel-Sattar WM, Sadek KM, Elbestawy AR and Mourad DM.

ABSTRACT

Harmful effects caused by aflatoxin (AF) directed researchers towards to find out new strategies for its control and detoxification increasing the safety of poultry feed. The aim of the present work was to study the protective role of date pits (*Phoenix dactylifera*) seeds against aflatoxicosis regarding carcass traits, biochemical function tests and histopathology of both liver and kidney in broiler chickens. 210 one-day old Arbor Acres broiler chicks were allotted into 7 equal groups as the first control (G1) supplemented by the basal diet, G2 had the basal diet with date pits supplementation 2%, G3 fed on the basal diet with date pits 4%, G4 was fed a basal diet containing 100µg aflatoxin/kg (100 ppb). G5 fed on a basal diet containing Hydrated Sodium Calcium Aluminum Silicates (HSCAS) 0.3% plus aflatoxin, (G6) fed a basal diet containing date pits 2% plus aflatoxin and finally G7 fed a basal diet containing date pits 4% plus aflatoxin. The aflatoxin supplemented to the broiler ration from first day to the end of experiment at 35 days. Aflatoxins supplementation significantly increased relative liver and small intestine weight, affect liver and kidney biochemical function tests and induced histopathological changes as fatty degeneration of hepatocytes, and interstitial nephritis with mononuclear cell infiltrations in both liver and kidney, respectively. However, addition of date pits (2% and 4%) and HSCAS (0.3%) to broiler's diet partially ameliorated these harmful effects of aflatoxins, indicating their protective effect against aflatoxicosis and this protection is dose-related. Addition of date palm seed (2% and 4%) gave a better results regarding carcass traits, biochemical parameters and histopathological examination of liver and kidney, finally concluding that date palm seed powder could be used as an effective feed additive to control aflatoxicosis in poultry with avoiding harmful effect of chemical mycotoxin binders (HSCAS).

**Keywords:** Aflatoxins, Broilers, Biochemical traits, Carcass characteristics, Date palm, Histopathological changes.
ABSTRACT


Potency of Sansevieria masoniana Extract against Antimicrobial Resistant Bacteria Isolated from Faeces of Pet – Reptile

Presented by: A Ramianto, Paghzasr, LI Vidyawisnur, Ikhan Widyono, Ya Pakhsoe

ABSTRACT

Aeromonas hydrophila (SM) leaf extract against isolated Salmonella enterica arizonae (48.83%), Pseudomonas sp (53.48%), and Enterococcus sp (32.55%). Those isolated bacteria indicated various resistance patterns against several antibiotics. The minimum concentration of SM extracts that potential to inhibit the colonisation of the isolated bacteria from faeces of Salmonella enteritidis colonisation of both resistant and susceptible isolated bacteria was 62.5 mg/mL. This study proved that SM extract potential to inhibit the colonisation of the isolated bacteria from faeces of the reptile communities in Surabaya on February 2018 until January 2019. The faeces obtained from 72 snakes, 43 lizards and 14 tortoises. The isolation was conducted using the Micro ID Proteus sp.

Keywords: antibiotics, resistance, SM extract, reptile, Pet – reptile, Reservoir, Resistance, Sansevieria masoniana.
Effect of Zeolite Dietary Supplementation on Physiological Responses and Production of Laying Hens Drinking Saline Well Water in South Sinai.

Emam KRS, Toraih HM, Hassan AM, El-Far AA, Morsy AS and Ahmed NA.

World Vet. J.

DOI: https://dx.doi.org/10.36380/scil.2019.wvj14

Keywords: Hematological parameters, Laying hens, Productive performance, Saline water, Heat stress, HSP70, Physiological responses, Productive and reproductive programs. Red blood cells count, packed cell volume and hemoglobin concentration increased in the rabbits of T2, T3 and T4. Total protein and globulin concentrations increased in the group (T1), hens drank tap water and fed basal diet. 5

Red blood cells and hemoglobin were significant lower in the hens of S compared to other treatments. Hens of S group showed significant decrease in total protein, globulin, glucose and total antioxidant capacity aspartic transaminase and creatinine were significantly increased in the hens of S group compared to other treatments. Aldosterone hormone was significantly decreased in the hens of T1, T2 and S2 compared to hens in T, S and S1 groups. Hens of T1, T2 and S2 groups showed significant decrease in total protein, globulin, glucose and total antioxidant capacity compared to other treatments. Egg number and egg mass were significant increase in the hens of T1, T2 and S2 compared with hens in T and S groups. Egg weight significantly increased in the hens of T2 and S2 compared to them in T, S and S1 groups. Hens of T1, T2 and S2 groups had significantly improved feed conversion compared to hens of S group. Hens of S group had significantly improved feed conversion compared to hens of T group.
Melamine is considered as one of urea derivatives. Recently it is added to feed stuffs for pathological alterations in vital assets especially liver and urinary system. As distension of the stomach was observed in groups 1, 3, 5 treated with 0.9, 90, 9000 ppm, respectively while groups 3, 5, 7 received the same melamine dose beside 2.5 gm/kg bee's honey to alleviate the harmful effect induced by melamine toxicity and to show the potential ameliorative effect of bee's honey (dose of 2.5 gm/kg body weight (B. w) for 45 days. Results declared that melamine in marked oxidative stress and toxic effect on different body organs, especially the bee's honey (dose of 2.5 gm/kg B. w) for 45 days. Results declared that melamine in marked oxidative stress and toxic effect on different body organs, especially the urinary bladder, crystals deposition and stone formation were detected with variable degrees in all groups treated only with melamine. Microscopically, various pathological changes in kidneys, liver, lung, heart and intestine were also demonstrated. The severity of these changes varied from mild to severe changes depending upon the dose of melamine. Interestingly, rats treated with melamine plus the bee's honey showed mild changes in comparison to the only melamine treated rats.}

Potential Ameliorative Effect of Bee's Honey on Experimentally Induced Melamine Toxicity in Male Albino Rats

Melamine 0.9 g

Melamine 1000 ppm

Melamine 5000 ppm

2.5 gm/kg B. w

5 Male albino rats

5 Male albino rats

5 Male albino rats

No noticeable toxic effects

Reduced toxic effects

A Review on the Role of Lipid in Selected Apicomplexan, Anaerobic, Kinetoplastid and Intestinal Parasitic Infections.

ABSTRACT

Keywords: Lipid, Apicomplexan, Anaerobic, Kinetoplastid, Intestinal Parasites.

Mechanism to mobilize lipid

Lipid droplets

Parasites from each group

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