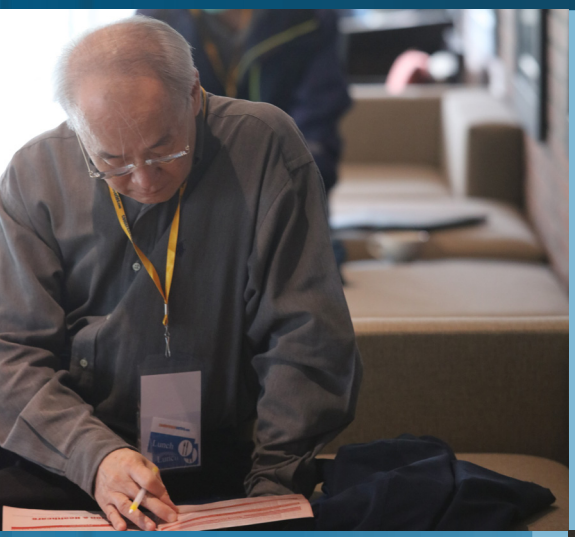
6th Annual Conference on

PARASITOLOGY & INFECTIOUS DISEASES

November 15-16, 2018 Istanbul, Turkey



Scientific Tracks & Abstracts (Day 1)

Meysam Galyan Sharif Dini et al., J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Helminthes in feral raccoon (*Procyon lotor*) as an alien species in Iran

Meysam Galyan Sharif Dini[1], Keyhan Ashrafi[1], Behnaz Rahmati[1] Omar M Amin[2], Nader Karamzadeh[3] and Iraj Mobedi[4]
[1]Guilan University of Medical Sciences, Iran
[2]Institute of Parasitic of Diseases, USA
[3]Gilan Provincial Office of the Department of the Environment (DOE), Iran
[4]Tehran University of Medical Sciences, Iran

Raccoon *(Procyon lotor)* is a native mammal in North and Central America. At present, as a result of escapes and deliberate introductions in the mid-20th century, the raccoon is now distributed in several European and Asian countries such as Japan, Germany and Iran. Objective of this study was to determine prevalence of gastrointestinal and tissue helminths from feral raccoons in Guilan province. During 2015-2017, a total of 30 feral raccoons including 12 males and 18 females were collected form Guilan province, northern Iran. The gastrointestinal tracts and tissues such as lung, liver and muscles were examined for presence of helminths. 20 raccoons (66.7%) were found infected with five intestinal helminth species. The prevalence of infection with *Strongyloides procyonis* Little, 1966 (Nematoda) was 63.3%, *Plagiorchis koreanus* Ogata, 1938 (Trematoda) (13.3%), *Centrorhynchus sp*. Luhe, 1911 (Acanthocephala) (10.0%), *Camerostrongylus didelphis* Wolfgang, 1951 (Nematoda) (3.3%), and *Spirocerca lupi* Rudolphi, 1809 (Nematoda) (3.3%). No larvae or adult worms were found in other tissues of the examined raccoons. No larvae or adult worms were found in the tissues of examined raccoons. In current study, most of the raccoons were infected with *S. procyonis*. Concerning public health importance of zoonotic parasites transmittable through raccoons, the rapid control and decrease of population and distribution of raccoons in Iran is suggested.

Biography

Meysam Galyan Sharif Dini has completed his PhD in Medical Parasitology from Tehran University of Medical Sciences, Iran. He is currently working as an Assistant Professor of the Department of Medical Parasitology and Mycology at School of Medicine, Guilan University of Medical Sciences, Iran. His major research interest includes Strongyloidiasis and Trichostrongyliasis. He has published more than 25 papers in reputed journals and also has served as Reviewer of several national and international journals.

sharifdini5@gmail.com

Notes:

Ozer Akgul et al., J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

High association of intestinal parasites with cancer and organ transplant recipient patients in Turkey

Ozer Akgul[1], Reyhan Caliskan[1], Yasar Ali Oner[1], Ayse Canan Yazici Guvercin[1], Hayriye Kirkoyun Uysal[2], Ozgur Kurt[3] and Ilker Tosun[4]
[1]Istanbul Aydın University, Turkey
[2]Istanbul University, Turkey
[3]Acıbadem Mehmet Hospital, Turkey
[4]Acıbadem Bodrum Hospital, Turkey

In healthy individuals, intestinal parasitic infections generally self-limiting, but it may cause severe complications such as persistent diarrhea and/or malabsorption in patients with immune compromising conditions (such as, undergoing chemotherapy, organ transplantation and AIDS). Hence, the main aim of this case-control study was to detect the intestinal parasites *(Cryptosporidium spp., Giardia spp., Entamoeba histolytica, Blastocystis spp. and Dientameba spp.)* with microscopic and molecular methods among the immune compromised group consisting of Cancer Patients (CP) and Organ Transplant recipient Patients (OTP) in comparison with Healthy Individuals (HI) in Turkey. The present study was conducted among 90 HI and different groups of immune compromised patients, including 57 CP and 33 OTP in Turkey. The overall frequency of any intestinal parasites was 17.2% (31/180) with microscopy and 51.7% (93/180) with PCR technique. The presence of intestinal parasites in CP was 24.6% (14/57) and 80.7% (46/57), in OTP was 18.2% (6/33) and 57.6% (19/33), in HI was 12.2% (11/90) and 31.1% (28/90) with microscopy and PCR techniques, respectively. Also, all parasite species were shown in Table 1 ($p<0.001$). Table 2 was shown data that in the detection of parasites, the accuracy of the microscopy technique was analyzed in comparison to that of the PCR technique ($p<0.001$) (Table 2). This is the first study performed in Turkish reporting the prevalence of 5 intestinal parasites among these groups. These results show that *Cryptosporidium spp*. and multiparasitism are strongly associated cancer patients but, further studies are needed to reach definitive conclusions about this association.

Biography

Ozer Akgul has completed his PhD from Department of Medical Microbiology at Istanbul University and Postdoctoral studies from Istanbul Aydin University School of Medicine. He is currently working as Assistant Professor at Istanbul Aydin University School of Medicine. He has published more than 10 papers in reputed journals and has been serving as an Editorial Board Member.

akgulozer@hotmail.com

Notes:

Abdalla Fadlalla Azrug et al., J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Prevalence and economic impact of haemonchosis among sheep in some semi-closed system farms in Bahrain

Abdalla Fadlalla Azrug, Eman Magzoub Saeed and Ali Attia Salman
Agriculture and Marine Resources Affairs, Bahrain

Background: Although Bahrain has a very limited land-space and its livestock population is very low, but still livestock represents an essential contributive part of the public economy and national income. Haemonchosis caused by *Haemonchus contortus* is one the most economically important parasitic infestations among sheep Bahrain.

Method: An epidemiological study on gastrointestinal parasites among sheep was conducted in some semi-closed farms in different parts of Bahrain during 2017. Fresh fecal samples were collected or received from a total of 176 sheep located in 23 semi-closed farms. The significance of animal ages on parasitic infections was studied in addition to animal breeds and sexes. ALOS the degree of infection severity was estimated by performing fecal egg counts per gram of feces (EPG). The serious economic impact of haemonchosis on both meat and milk production rates among sheep in Bahrain was very effective regarding sheep breeders' estimative feedback.

Result: The overall prevalence rate % of haemonchosis among sheep in Bahrain farms was estimated as 17.6%. A total of 176 samples were tested where 31 samples detected positive with haemonchosis. Above 40% of the positive cases were found as mixed infections with other species of gastrointestinal parasites as *Trichuris, Nematodirus* and *Eimeria* species.

Conclusion: Animal age was very significant in the prevalence rates and severity of haemonchosis among sheep in Bahrain farms where it was mostly seen with heavy infestation in ages above 3 years (61.3%) 19 out 31 positive cases, while it was only detected in few cases under 6-12 months ages. There were no significant noticeable effects on the animal ages or breeds with haemonchosis prevalence.

Biography

Abdalla Fadlalla Azrug has completed his PhD in Veterinary Helminthology at Ankara University, Turkey. He has worked as the Director for Fashir and Nyala Regional Veterinary Research Laboratories, Sudan. He is currently working as the Head of the Central Veterinary Laboratory, Agriculture and Marine Resources Affairs, Manama, Bahrain. He has published more than 15 papers in reputed journals and scientific international conference books participating in many international conferences related to the field of veterinary science and one health.

azrug@hotmail.com

Notes:

Layla O Elmajdoub, J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Genetic variants within the strains of *Echinococcus granulosus* by mitochondrial DNA sequencing

Layla O Elmajdoub
Misurata University, Libya

The pattern of strain variation within *Echinococcus granulosus* is complex and controversial. Cyst isolates were obtained from different host species and the strain to which each belonged was established by basic and nested PCR. These results were compared to those obtained by analysis of mitochondrial fragment sequences (NADH dehydrogenase 1) from each isolate. The Libyan sheep strain corresponded with genotype 1 (G1) of the parasite, infecting Libyan sheep. And the Libyan camel strain corresponded with genotype 6 (G6) of the parasite infecting camel, sheep. This circumstance and especially the possibility of intermediate hosts serving as reservoirs of the G6 genotype of the parasite, must be taken into consideration by authorities in order to develop and evaluate effective anti- hydatidosis programmes.

Biography

Layla O Elmajdoub has completed her PhD and Postdoctoral studies from Universiti Sains Malaysia, Malaysia. She has published 15 papers in reputed journals and has been serving as an Editorial Board Member.

elmajdoublayla@yahoo.com

Notes:

Ramadan A M Ramadan, J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Donax trunculus (Bivalvia, Donacidae) Infestation with *Bacciger bacciger* (Trematoda, Fellodistomidae) at Port Said coastal zone (Mediterranean Sea)

Ramadan A M Ramadan
Agriculture Research Center, Egypt

Infection of *Bacciger bacciger* in the *Donax trunculus* was studied in samples collected from the Mediterranean coast at Port Said coastal zone. Sporocysts of *Bacciger bacciger* were embedded in gonadal tissue of the bivalve *Donax trunculus*. Sporocysts of B. bacciger were demonstrated in 504 of 1200 clams examined with overall prevalence of infection reaching 73.69%. The prevalence increased to 24% of *D. trunculus* with shell length 34 mm, while individuals less than 15 mm shell length were not infested with *B. bacciger*. Seasonality was recognized in prevalence of infection. The proportion of infected individuals of both sexes was nearly similar (6.56% in males and 8.04 % in females). The proportion of infected clams reduced to virtual castrates of unknown sex reached 28%. The tegument of the sporocyst and cercariae were studied by light microscopy. A birth pore on one side of the sporocyst, uniciliate sensory organs and cup-shaped sensory-like structures were present on the tegument. The cercarial body had spines and uniciliate sensory organs. The ventral sucker of the cercariae had 2 rings of uniciliate sensory organs and supported with tegumental spines. Histopathological effect of *Bacciger bacciger* on *Donax trunculus* was studied and discussed. Results revealed that the most common sites of the sporocyst occurrence were the interfollecular connective tissues in the gonads and muscle fibers of the foot. Degenerative follicles hypertrophy and hyperplastic changes of the connective tissues, granular haemocytes and separation between germ cells and follicular epithelium were the main histological features of the infection in the male *D. trunculus* gonad. While, vacuolization, necrosis and derangement of muscle fibers of foot were the most histological features observed in infected feet by sporocyst. The Siphonal tissue of infected *Donax* was free of sporocysts. The increase in goblet cells and movement of subepithellial mucous glands towards the outer surface were indications of defense against B. bacciger infection. The present results indicated that *B. bacciger* promotes a severe castration in the bivalve *Donax trunculus.*

Biography

Ramadan A M Ramadan is currently working in the Fish Diseases Department at Central Lab. For Aquaculture Research (El-Abbassa), Agriculture Research Center, Egypt. His Present research or professional specialties are in Parasitogy of freshwater and marine fish, crustaceans and molluscs.

dr_ramadan2014@yahoo.com

Notes:

Adam Suliman, J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Assessment of KAP regarding HIV testing among military personnel in Omdurman military area 2017- Sudan

Adam Suliman
Communicable Diseases Control at Military Medical Services, Sudan

According to WHO and UNAIDS estimates, the prevalence rate of HIV infection in Sudan is 25% in 2016. The AIDS epidemic in Sudan is concentrated among the most vulnerable groups (women who have sex for money and men have sex with men). A descriptive cross-sectional community based study was conducted among active duty service military personnel. Its objective was to establish baseline behavioral, knowledge and intervention exposure data in relation to HIV/AIDS among military personnel. A sample size of 340 military personnel at Omdurman Military Area was determined using statistical formula. Sociodemographic data as well as information related to sexual behavior were collected. All respondants are males and Muslims. About 34.1% of the age group 18-24 years, 54.1% were between 25-49 years and 11.8% were more than 50 years. Regarding education 56.2% basic school and 11.8% illiterate. About 75% were married and 25% unmarried. The respondants were highly knowledgable of HIV/AIDS, 100% heard about the disease, the main channel was the lectures presented by the health workers (45%). Only 35% know the symptoms and signs. Modes of transmission 76.4% sexual intercourse, 36.8% blood transfusion, 37.9% skin penetration. Regarding sexual behavior, 96.5% reported their first sexual experience between 20 and 30 years. 94.7% said that marriage offered protection, 72.6% said abstinence and only 7.8% said use of condom. As regards wrong believes 54.7% said the HIV virus can be transmitted by mosquito, 51.7% by sharing food with an infected person. Voluntary test and the results 100% negative. Findings showed that even though the respondent's knowledge about HIV was good but there were some wrong believes. The circumcision, religion, marital status, education level are significant predictors for HIV infections control and prevention. These findings should be considered in any intervention strategy in the country.

Biography

Adam Suliman has completed his BSc from the University of Khartoum, Faculty of Public and Environmental Health, MSc in Public Health from the same University. He is the Director of Communicable Diseases Control Department, at Military Medical Services G. Admin. He has published 2 papers in reputed journals.

hithimyihi@yahoo.com

Notes:

6th Annual Conference on

PARASITOLOGY & INFECTIOUS DISEASES

November 15-16, 2018 Istanbul, Turkey

Special Session (Day 2)

Omar M Amin, J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Variability of Acanthocephalans

Omar M Amin
Parasitology Center Inc., USA

Unique and unusual features in the many species of Acanthocephalans described and/or studied by Amin from fish, amphibians, reptiles, birds and mammals, in various parts of the world including South America, Vietnam, Japan, the United States, the Middle East and North and East Africa are described. The presentation is in five parts.

1. An introductory section dealing with the classification, general morphology, ecology and life cycles of the Acanthocephala.
2. Unusual anatomical features of taxonomic or of questionable taxonomic importance addressing variations in the proboscis, proboscis hooks, male and female reproductive organs and lemnisci. Newly described structures including (a) Para-Receptacle Structure (PRS) and hoods in certain species as well as a new order of Acanthocephala from Vietnamese birds, are also featured.
3. Structural and functional relationships explaining the relationship between the metamorphosis of the giant nuclei in Eoacanthocephala and worm reproductive cycle.
4. Host-parasite relationships elucidating the relationships between worm anatomy and biology during worm growth.
5. Curiosities in reviews and revisions highlighting taxonomically based zoo-geographical patterns and trends in the genera Neoechinorhynchus, Polymorphus and Pallisentis. A comprehensive treatment of the Acanthocephalans of South America and those marine forms off the Eastern United States is also included here. A look at the September 2013 classification scheme of the Acanthocephala is included covering 4 classes, 26 families, 157 genera, and 1298 species are included.

Biography

Omar M. Amin, M.Sc. in medical entomology, Ph.D. in Parasitology and Infectious Diseases, and DNM. Research experience at CDC Atlanta, Georgia and at NAMRU-3 (US Naval Medical Research Unit # 3) Cairo, He has received many awards and grants by US Army and national and state agencies annually. The Persian Gulf research was supported by 2 Fulbright Research Scholarships. He has published over 245 major publications including ones on Herbal Remedies for Parasitic Infections and a 5- part video series on Parasite Infections in Humans. He is currently the Director of the Parasitology Center, Inc. (PCI), and the Institute of Parasitic Diseases, Scottsdale, Arizona, USA at www.parasitetesting.com, with subunits in Mexico, U.K., and West Africa.

omaramin@aol.com

6th Annual Conference on

PARASITOLOGY & INFECTIOUS DISEASES

November 15-16, 2018 Istanbul, Turkey

Scientific Tracks & Abstracts (Day 2)

Asmaa Ibrahim Nasr, J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Helicobacter pylori and enteric parasites co-infection among Egyptian children: Estimated risks, and predictive factor

Asmaa Ibrahim Nasr
Cairo University, Egypt

H.pylori and intestinal parasites are known for their high prevalence in children. Both of them infect the gastrointestinal tract with overlapping clinical pictures. This study was conducted to determine *H.pylori* prevalence and its association with intestinal parasites in children, moreover to estimate risk and predictive factors for their detection in stool samples. Single fecal samples were collected from 226 Egyptian pediatric patients (125 diarrheic and 101 non-diarrheic) attending gastroenterology outpatients' clinics, from February 2016 to June 2017. All stool specimens were microscopically examined to search for ova and parasites. Copro-DNAs detection of *H.pylori* and Cryptosporidium were performed using nested-PCR assays.H. pylori was detected molecularly in 36.8% of the total study population, with a higher prevalence in diarrheic than in non-diarrheic children. Intestinal parasites were detected in 27.4% of the total study population, of these, 43.9% had co-existence with *H.pylori* colonized patients and was significantly associated with Cryptosporidium spp. and *G.intestinalis*. Estimated risk of the presence of *H.pylori* in January. Our data provide a better understanding of the epidemiology of *H.pylori* infection when associated with intestinal parasites. *H.pylori* co-existence with G.intestinals and Cryptosporidium may suggest the association of *H.pylori* infection with markers of fecal exposure. Whether *H.pylori* provides favorable conditions for intestinal parasitosis or vice versa, still further investigations are needed with an emphasis upon determining correlation with gut microbiomes.

Biography

Motivated student currently working towards degree in molecular biology (molecular genetics and cytogenetics). Adept at prepping resources, equipment, and materials for research. Extensive background in investigating molecular parasitology and microniology. Seeking to secure rewarding Research Assistant role to facilitate Research for thesis. Efficient Research Assistant able to complete a wide range of support tasks under strict schedules. Systematic and meticulous in all work. Eager to contribute to infectious diseases research. Skilled Research Assistant knowledgeable about conventional PCR, Real time PCR and Elisa.

chemistasmaain@gmail.com

Notes:

Zahra Hesari Sherme et al., J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

In vitro effects of pumpkin (*Cucurbita moschata*) seed extracts on *Echinococcus granulosus* protoscoleces

Zahra Hesari Sherme[1], Meysam Sharifdini[1], Mohammad Kazem Sharifi-yazdi[2], Bahram Nikmanesh[2], Shahram Mahmoudi[2], Mehdi Mohebali[2], Saeedeh Ghafari[3] and Sara Ghasemi[3]

[1]Guilan University of Medical Sciences, Iran
[2]Tehran University of Medical Sciences, Tehran, Iran
[3]Shahid Beheshti University of Medical Sciences, Iran

Echinococcus granulosus parasite causes a zoonotic disease which is important for public and veterinary health. Since pumpkin seeds *(Cucurbita sp)* are used as traditional vermifuge in Iran, they may be a potential herbal anthelmintic. This study was designed to evaluate the *in vitro* scolicidal effect of *Cucurbita moschata* seeds. Hydro alcoholic and petroleum ether extracts were prepared by maceration and Soxhlet, respectively. Both extracts with four different concentrations (100, 10, 1, 0.1 mg/ml) were incubated against protoscoleces in 5, 15, 30 and 60 minutes. Maximum mortality was 16% with 1% hydro alcoholic extract in 60 minutes. Highest mortality with organic extract was 4% with 10% concentration in 60 minutes (P=0.015). Since highest mortality was 16%, the extract didn't reach to LD 50 (50% mortality). Therefore, the potency of the total extract is not sufficient as potential scolicidal drug.

Biography

Zahra Hesari has completed her PhD in Pharmaceutics from Tehran University of Medical Sciences, Iran. She is currently working as an Assistant Professor in the Department of Pharmaceutics at School of Pharmacy, Guilan University of Medical Sciences, Iran. Her major research interest includes formulation and physicochemical evaluation of orally disintegrating tablets and neural tissue engineering. She has published more than 6 papers in reputed journals. She is also a Reviewer of several national and international journals.

Z.hesari@gmail.com

Notes:

Rifat Ullah Khan et al., J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Anticoccidial effect of garlic *(Allium sativum)* and ginger *(Zingiber officinale)* against experimentally induced coccidiosis in broiler chickens

Rifat Ullah Khan, Naila Chand and Majid Ali
University of Agriculture, Pakistan

The present study was designed to find the effect of ginger and garlic on the performance and integrity of gut in experimentally induced coccidiosis in broiler chickens. A total of 200 day-old Hubbard broiler chicks were divided into six equal groups as T1-Control (basal diet only) T2-Infected, untreated (positive control) T3-Infected and supplemented with garlic at 15 g/kg feed, T4-Infected and supplemented with gingers at 5 g/kg feed, T5-Infected and treated with amprolium hydrochloride at 1.25 g/liter drinking water, T6-Infected and supplemented with mixture of garlic and ginger at the rate of 2.5 and 7.5 g/kg feed. The results showed that feed intake, body weight and Feed Conversion Ratio (FCR) was significantly ($P<0.05$) high in ginger and garlic supplemented birds compared to the positive control. Similarly, oocysts shedding, lesion score and histopathology of the small intestines improved in ginger and garlic supplemented birds after induced-infection in broiler. The findings of the present study showed that ginger and garlic produced encouraging results in comparison to Amprolium in broiler chickens infected with experimental coccidiosis.

Biography

Rifat Ullah Khan is working as Researcher in the field of poultry nutrition and production. His Areas of Specialization is Male fertility and semen quality and immune system in poultry as affected by antioxidants, protein and probiotics.

rifatullahkhhan@gmail.com

Notes:

Hridaya Shanker Singh, J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

A review of Monogenean diversity in India: Pathogens of fish diseases

Hridaya Shanker Singh
C C Singh University, India

Studies about biodiversity of helminthes (excluding Monogeneans) in India were started from the middle of 20th century by helminthologist who came to this country on medical or military deputation from foreign lands. As regard biodiversity studies related to Indian Monogeneans is concerned, it also started w.e.f., 1940s by workers like - Chauhan, Thapar, Jain, Unnithan, Gupta (SP), Gupta (NK), Agarwal (GP), Ramalingam, Tripathi, Gussev etc. Recently, Pandey and Agrawal compiled a comprehensive account of known species of Monogeneans from India which is estimated to be about 300, which is far from complete. Indian subcontinent is blessed with five major river systems of India viz., Ganga, Brahmaputra, Indus, East coast and West coast river systems. These rivers are long and are further fed strengthened by many large and important tributaries. Moreover, many small seasonal and perennial rivers also use to contribute to these river systems separately. The investigator is actively engaged in the study of freshwater Monogeneans since 1980. The present study reveals that about 35.45% fishes have so far been investigated for Monogenean infection in general and still 74% are remaining that are not screened. Helminth parasites, particularly Monogeneans leads greater losses on account of having direct life cycle, which can be completed easily in a closed system of fish culture. If we stick to one host one parasite rule, there exists a very big gap as far as state of our knowledge related to biodiversity of freshwater Monogeneans are concerned. It is clear from the present review that much remains to be done about this group within India with newer tools including molecular studies.

Biography

Hridaya Shanker Singh is present Pro- Vice Chancellor, Ch. Charan Singh University, Meerut; Chairman, IQAC, Ch. Charan Singh University, Meerut and Head, Department of Zoology, Ch. Charan Singh University, Meerut. He is having life Memberships and awards in Helminthological Society of India, Indian Society of Parasitology, Society of Parasitology and Applied Animal Biology, Indian Association for the Advancement of Veterinary Parasitology, Zoological Society of India, Indian Science Congress Association.

hirdaya_singh@rediffmail.com

Notes:

Fatma Hamed Shalan et al., J Infect Dis Ther 2018, Volume 6
DOI: 10.4172/2332-0877-C5-050

Mesenchymal stem cell as a cure for brain damage induced by chronic *Toxocara canis* infection in an experimental mouse model

Fatma Hamed Shalan[1], Ayman Abd El-Moenem Elbadry[2], Amera Fathy Afifi[1], Engy Victor Nassief Beshay[1], Samar Ahmed El-Refai[1], Hala Gabr Metwaly[3], Eman Ahmedy[4], Eman Abd El-Fattah Badr[5], Dalia Refaat Al-Sharaky[6] and Gehan Salah Sadek[1]

[1]Parasitology Department, Faculty of Medicine, Menoufia University, Egypt
[2]Parasitology Department, Faculty of Medicine, Cairo University, Egypt
[3]Clinical Pathology Department, Faculty of Medicine, Cairo University, Egypt
[4]Clinical Pathology Department, Faculty of Medicine, Menoufia University, Egypt
[5]Biochemistry Department, Faculty of Medicine, Menoufia University, Egypt
[6]Pathology Department, Faculty of Medicine, Menoufia University, Egypt

Neurotoxocariasis is a serious condition linked to the reduced cognitive function in children and some neurodegenerative diseases. Unfortunately, the available drugs for its treatment are with variable results. Mesenchymal stem cells (MSCs) have been used in experimental and clinical trials and it gave promising therapeutic results. Therefore, this study was designed using forty T. canis-infected albino mice (1000 eggs/mouse, orally) and a control group (GI) of ten healthy mice. The infected groups were GII: infected non-treated (control group), GIII: albendazole-treated (100 mg/kg/d once orally for 5 successive days), GIV: MSCs-treated (3 x 10^6 MSCs in 0.1 mL of PBS via the tail vein) and GV: albendazole + MSCs-treated. Treatment was commenced 6 weeks p.i. and the experiment was terminated four weeks after treatment. The brain tissue of each mouse was subjected for histopathological, immunohistochemical studies (caspase-3, TGF-β), detection or *T. canis* DNA by real-time PCR and gene expression the biomarkers of brain damage (S100B, GFAP) by RT-PCR. Moreover, homing of iron oxide-labelled MSCs in brain tissues was assessed by Prussian blue stain. The brain tissues of GII showed numerous *T. canis* larvae, significant congestion, thickening of arterioles, inflammatory infiltrate and gliosis associated with marked immunohistochemical expression of TGF-β and caspase-3 as well as marked S100B and GFAP gene expression. Significant improvements of the previous parameters and *T. canis* DNA were recorded in all the treated groups. However, the best results were obtained with combined albendazole + MSCs therapy. Thus, MSCs could be considered in the treatment of chronic neurotoxocariasis.

Biography

Fatma shalan has completed her bachelor of medicine with excellent grade in 2006 from Faculty of Medicine, Menofia University. She has completed her M.Sc. in Medical Parasitology in 2012. Her thesis was about the relationship between IL-6 and some parasitic infections in hepatic patients in Menofia governorate. This abstract is representative of her M.D. thesis.

dr.fatma.shaalan@gmail.com

Notes: