Material and Methods: Reservoir hosts of ZCL were captured by live trap. Rodent species were identified. Smear of each ear were prepared by scratching ears. Serous from rodent ears were isolated; then, inoculated to NNN, injected to susceptible animal. Slides were prepared to find Leishmania using microscope. DNAs were extracted by ISH Horovize method and gene was amplified by Nested PCR.

Results: 122 rodents were trapped from 8 study regions. 98 Meriones libycus, 13 Meriones persicus, 4 Rhombomis opimus and one Rattus rattus were trapped. 6 rodents were not identified. Leishmania infections were found in M. lybicus and M. persicus using direct smear, inoculation in Balb/c and in NNN medium. Detection of Leishmania major in those rodents was confirmed molecularly.

Discussion: Based on finding and abundant of M. lybicus, high Leishmania infection in this rodent is the main reservoir of Leishmania major in Fars province. M. persicus is second reservoir host of ZCL. Fars province is one of new focus of endemic of leishmaniasis in Iran.

PP-200 First detection of Leishmania parasite in Meriones libycus reservoir of Zoonotic Cutaneous Leishmaniasis in Turkmen Sahara (Golastan province) M. Hedaya
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Introduction: Zoonotic Cutaneous Leishmaniasis (ZCL) is a disease for which rodent’s family Gerbillidae are reservoirs and Phlebotominae sand-flies are vectors. Turkmen Sahara is one of the endemic disease foci in Iran. Based on previous reports, the only reservoir of ZCL is Rhombomis opimus. For this, detection of Leishmania parasite in M. libycus was considered.

Material and Methods: Rodents of reservoir host of ZCL disease were captured by live trap. Serous from rodent ears were isolated; then, slide were prepared, inoculated to NNN, injected to susceptible animal. For confirming certain Leishmania parasite in rodents, DNA were extracted, kDNA and ITS-rDNA genes were used by semi-nested and nested PCR.

Results: 19 rodents were trapped from 8 study regions. Leishmania major infection detected in M. lybicus by both routine laboratory and molecular tools. After sequencing and comparing kDNA and ITS-rDNA genes with those in GenBank, Leishmania major in this rodent for first time confirmed certainly.

Discussion: Based on certain confirmation of Leishmania major in M. lybicus, this rodent should be considered as second reservoir of ZCL, however R. opimus is the main reservoir of ZCL in this region. In addition of routine laboratory methods, new molecular methods should be used to detect parasite in reservoirs host of ZCL.

PP-201 A2 gene among isolates from Iranian cutaneous leishmaniasis species is highly conserved gene M. Farahmand1, H. Atashi Shirazi1, H. Nahrevanian1, 1Pasteur Institute of Iran, Iran

Objective: Leishmania are leading to broad spectrum of diseases, collectively known as leishmaniasis. The A2 gene/protein family could be one of the most eligible candidate factors of virulence in visceral leishmaniasis (VL) infections. The previous results confirmed that in L. infantum, several A2 proteins are abundantly expressed by the amastigote, but not by promastigote stage. As there are no data available on the pattern of A2 gene/protein in Iranian Leishmania isolates of cutaneous leishmaniasis (CL), the current study aimed to investigate molecular analysis of A2 proteins among Leishmania species.

Methods: An A2 gene was identified by sequencing from crude PCR products of 20 samples from Iranian CL patients.

Results: The results indicated the A2 gene in CL is a single copy of only 153 bp encoding for a protein of 51 amino acids, as opposed to A2 of VL species that are multi-copy genes of varying length.

Conclusion: It is concluded that A2 sequences in L. major strains has homology with stage-specific S antigen-like protein (A2) of L. major and L. donovani infantum. A2 sequences in L. tropica strains have also homology with stage-specific S antigen-like protein (A2) of L. major and L. tropica.

PP-202 Fulminant liver failure in patient with leishmaniasis H. Ghazinyani1, A. Asoyan1, E. Zardaryan1, A. Shahapuni1, 1“Nork” Clinical Hospital of Infectious Disease, Yerevan, Armenia

Introduction: Leishmaniasis is a disease which can be endemic, epidemic or sporadic. There are 88 countries in the world endemic of leishmaniasis, including Armenia. The clinical manifestation of leishmaniasis depends on the complex interaction of the parasites invasiveness, tropism and pathogenesity and the host immune response. The aim of this work is to show a rare case of visceral leishmaniasis in child.

Case description: Patient 1.5 years old, male, was emergency hospitalized in our clinic on the 20th day of illness with diagnosis of viral hepatitis. Clinical exam: prolonged fever, progressive weight loss, severe intoxication syndrome (weakness, anorexia, vomiting, nausea), expressed jaundice of the skin and mucous membrane, hepatosplenomegaly with predominantly enlarge of spleen. Laboratory findings: HAV IgM, HBsAg, HBCor IgM, antiHCV are negative. Pancytopenia with HGB = 60g/dl; RBD = 1.8M/ul, WBC = 4.1; PLT = 60 k/ul; ESR 70. Biochemical analyses show increase of total bilirubin (534 µmol/l) with direct bilirubin (361.9 µmol/l); ALT = 3160 U/L, AST = 730 U/L, expressed dysproteinemia, PT 20%. US investigation demonstrated enlargement of liver and spleen with structure abnormalities, ascites.

Diagnosis of visceral leishmaniasis is based on clinical expressed symptoms and laboratory findings: isolation of Leishmania donovani through bone marrow aspirate culture, serological specific IgM positive. The progression of the disease to fulminant liver failure with encephalopathy I–II and ascites, was developed on the 4-th day of hospitalization. Result of complex therapy including etiological – meglumine antimoniate (glukantim) and pathogenetical treatment led to full recovery.

PP-203 Taenia saginata infection: a rare case of intestinal perforation from Northern Iran M. Soosaraie1, S. Alizadeh2, M. Fakhar3, 1Hakim Jorjani Hospital of Gorgan, Social Security Organization – Department of Medical Parasitology and Mycology, School of Medicine, Mazandaran University of Medical Sciences, 2Hakim Jorjani Hospital of Gorgan, Social Security Organization, 3Department of Medical Parasitology and Mycology, School of Medicine, Mazandaran University of Medical Sciences, Iran

Background: Taeniasis is a worm infection known commonly in the North of Iran. It is caused by the beef tapeworm Taenia saginata and can lead to imperative situation surgical settings.
PP-204 Reemerging of Mediterranean visceral leishmaniasis (MVL) in North of Iran: molecular and serological evidences

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Background: Over the last decade, the incidence of Mediterranean visceral leishmaniasis (MVL) has increased in many districts of the province of Mazandaran, in northern Iran, where the first human case of MVL was reported in 1949. This study aimed to determine prevalence of human and canine visceral leishmaniasis for the first time in the province.

Methods: Between 2009 and 2010, blood samples were collected from 401 apparently healthy subjects from communities and forty-nine domestic dogs, in the central zone of Mazandaran Province (including Semeskandeh and Kiakola districts), where new human VL case had emerged. Each of these samples was tested for anti-Leishmania antibodies, in direct agglutination tests (DAT), and for L. infantum kinetoplast DNA on whole blood, in PCR-based assays.

Results: Of the 401 human samples from studied area, eight (2%) were found seropositive at 1:1600 titer and none was found PCR-positive. Of the 49 dog samples, 17 (34.7%) showed anti-Leishmania antibodies with titers 1:80 and 2 (4.1%) were PCR-positive. All PCR-positive dogs were not seropositive. In addition, all PCR-positive dogs had clinical signs while all human cases were asymptomatic subjects.

Conclusion: Our preliminary study showed that asymptomatic human carriers of L. infantum are quite common in the study areas. Moreover, the results correspond to the evidences of reemerging of MVL in this non-endemic area in which the first human case of visceral leishmaniasis had been reported in Iran. Thus, further investigations regarding sandflies fauna and animal reservoirs are required in this province.

PP-205 Haemophagocytic syndrome (HPS) associated with Mediterranean visceral leishmaniasis (MVL)

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We report a case of haemophagocytic syndrome (HPS) associated with acute Mediterranean visceral leishmaniasis (MVL) from Fars Province, in southern Iran, where MVL is endemic. The patient, a 4-month-old girl, was referred to hospital with abdominal pain high-grade fever and splenomegaly. Hematological findings revealed severe anemia, and pancytopenia. A trephine biopsy revealed a hypercellular marrow with few amastigotes as well as many macrophages contains lymphocytes, RBC and amastigotes. Anti-Leishmania antibodies was shown to be present at titers 1:64 and 1:1600 by IFA and DAT respectively. Moreover, by specific polymerase chain reaction (PCR) on peripheral blood and urine, a 145bp band corresponding to kDNA from the genus Leishmania was detected and the species was identified as L. infantum using nested-PCR. This is first report of MVL/HPS from Iran which the species was characterized by PCR. The patient was treated successfully with two courses of liposomal amphotericin B plus corticosteroid.

PP-206 Mosquitocidal and antifecundity effects of coumarin and betulinic acid isolated from Cassia siamea (Fabaceae) stem bark chloroform extract on female Anopheles stephensi (Diptera: Culicidae)

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Prevalence of malaria mortality and morbidity caused by resistance of Plasmodium and Anopheles needs the development of new tools to fight malaria. In order to develop new tools to fight against malaria, the bark of Cassia siamea was subjected to phytochemical investigation, which led to the isolation of coumarin and betulinic acid. We conducted a chronic administration in the form of food from the chloroform extract of the coumarin and betulinic acid at the concentrations of 2000, 800 and 1600ppm respectively, once every two days, for 21 days corresponding to the sporogonic cycle. The results have shown an efficiency of 100% mortality in the group of mosquitoes treated by coumarin on day 15, an efficiency of 90% mortality in the group of mosquitoes treated with betulinic acid at day 20, finally efficiency 71% mortality in the group of mosquitoes treated with the chloroform extract. The sporogonic cycle duration, was evaluated at 21 days. Coumarin and betulinic acid have reduced the fecundity of females’ mosquitoes half. Coumarin and betulinic acid are mosquitocidal and antifecundity properties.

PP-207 International present situation of scientific productions of Iranian’s researchers in parasitology domain

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Background: In the present decade, the term ‘scientific production’ was considered as one of the important topic. The aim of this study was to investigate international present situation of scientific productions of Iran’s researchers in parasitology field.

Methods: This scientometric study was conducted using bibliographic records from the ISI databases restricted to