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Method: Twenty four C57/BL6 female mice, aging 6–8 weeks and weighing 20 gr were used in this project. The mice were divided into 3 groups as follows: 1. Normal group 2. Control group 3. treatment group. For induction of EAE a mixture of Myelin oligodendrocyte Glycoprotein and complete Freund's adjuvant were injected subcutaneously. Mice were also intraperitoneally (i.p.) injected with pertussis toxin. A second identical injection of pertussis toxin was given after 48 h. Parallel to EAE induction, the treatment group for 21 days was daily injected i.p 200 mg/kg Hesperidin. On 21 day mice were anesthetized and sacrificed. Percents of FoxP3+ regulatory splenocytes by flow cytometry, levels of IL-4, IL-17 and IFN-g using ELISA and splenocytes proliferation assay by Brdu, were all covered to determine the profile of immune response.

Results: Despite increased in the rate of FoxP3+ regulatory T cells and IL-4 secretion, the levels of IFN-g, IL-17 and the proliferation of splenocytes all showed remarkable decrease in Hesperidin treated group.

Conclusion: This study suggests that hesperidin shifted the immune response to Th2.

Keywords: Multiple sclerosis, Experimental autoimmune encephalomyelitis, Myelin oligodendrocyte Glycoprotein, Hesperidin

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Poster – [A-10-926-1]

Diagnosis of *Echinococcus granulosus* in experimentally infected dogs within prepatent period using hydatid cyst protoscolex antigens

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Introduction: Cystic echinococcosis is an important zoonosis caused by *Echinococcus granulosus* (E.g) with a considerable impact in both human and animal health in endemic areas such as Iran. This study was done to evaluate diagnostic performance of protoscolex antigens in ELISA test to assess diagnosis (E.g) in prepatent period.

Material and methods: A total of 6 dogs were successfully experimentally infected with approximately 10,000 protoscolexes from ovine infection. At 14–34 days post-infected blood samples were collected and then dogs were killed and necropsies. The number of adult worms and the antibody level were compared. Protoscolex somatic antigens are compared subject to three cycles of freezing and thawing and resuspend in 10 volumes of PBS 7.2, containing 0.5MPMSF. The suspensions were then sonicated on ice. The supernatant was collected.

Results: The presence of intestinal E.g was recorded 197–382 in 6 dogs. The antibody ELISA was positive for E.g specific antibodies. The maximum level of antibody increased 3 weeks after challenge, the 4th (OD = 0.739) week after challenge antibody level was diminished slightly in comparison with 3rd (0.976).

Conclusion: Determining the rate and mean abundance of E.g infection in dogs is probably the best index of the degree of transmission of E.g in a local region. A fact that is essential for the establishment of baseline data on prevalence, and in surveillance of hydatid control programs in endemic areas. The exposure with

protoscolex antigens could have caused the decrease of worm rate and worm burden in the dogs.

Keywords: *Echinococcus granulosus*, Hydatid cyst, Dog, ELISA, Protoscolex antigens

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Poster – [A-10-927-1]

The effects of a high dose of estradiol on nitric oxide level in brain tissues and learning of ovariectomized rats

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Introduction: The role of ovarian hormones and nitric oxide (NO) on CNS activity, particularly learning and memory and their interaction have been widely investigated. In the present study, the effects of a high dose of estradiol on learning, memory and nitric oxide metabolites in hippocampal tissues of ovariectomized rats was investigated.

Methods: Sham and ovariectomized (OVX) rats were divided into 4 groups: Sham, OVX, Sham-Estradiol (Sham-Est) and OVX-Estradiol (OVX-Est). The animals of Sham-Est and OVX-Est groups were treated by 4 mg/kg estradiol valerate for 12 weeks. The animals of Sham and OVX groups received saline instead of estradiol. The animals were tested in the Morris water maze. The animals were then sacrificed, and their hippocampi were removed to measure the tissue concentrations of NO₂ and NO₃ using Griess method.

Results: Significantly lower NO metabolite levels in the hippocampi of the Sham-Est and OVX-Est groups were observed compared to Sham and OVX groups (P < 0.001). The swim distance and time latency were significantly higher in both Sham-Est and OVX-Est groups in comparison with Sham and OVX groups respectively (P < 0.001).

Conclusion: These results suggest that the decreased NO level in the hippocampus may play a role in the learning and memory deficits observed in Sham and OVX rats treated with a high dose of estradiol, the precise underlying mechanism(s) remains to be elucidated.

Keywords: Nitric oxide, Ovariectomized rat, Brain tissues, Water maze

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Poster – [A-10-947-1]

Ineffectiveness of simvastatin therapy on serum HSP-60/65 and -70 levels in dyslipidemic patients

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Introduction: The purpose of the present work was to analyze whether the statin-therapy affects the serum levels of HSP-60/65 and -70 in dyslipidemic patients.