P020
Comparative investigation of different sequences of Magnetic Resonance Imaging such as FLAIR, T2WI and PDWI in detection of Multiple Sclerosis patients referred to Magnetic Resonance Imaging Department of Imam Khomeini Hospital, Urmia, Iran

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Introduction: Multiple Sclerosis is the most common neurologic disorder that affects the CNS with an inflammatory demyelinating process and the most frequent cause of disability in young people. Diagnosis of multiple sclerosis disease is based on observation, neurologic examination and para clinical assays. Obviously Magnetic Resonance Imaging imaging changes the approach to the disease and it is the selective modality for diagnosis, monitoring and prognosis assessment. These years Multiple Sclerosis is diagnosed and treated with the use of Magnetic Resonance Imaging technique. We have several studies about Multiple Sclerosis and its correlation with Magnetic Resonance Imaging. Since the Multiple Sclerosis plaques have different importance in various era (such as peri-ventricular, corpus callosum, ventricles and spine). Thus one Multiple Sclerosis plaque in infra tentorium and 9 peri-ventricular have the same value and in various era. T1, T2, FLAIR, PD and STIR have different sensitivities in diagnosis of Multiple Sclerosis; for example normal spine Magnetic Resonance Imaging in T2 and FLAIR sequences may show heterogeneous lesion by STIR sequence. We were encouraged to evaluate the relation of Multiple Sclerosis plaques and difference of their detectiveness with different sequences.

Methods: We compared 50 Multiple Sclerosis patients Magnetic Resonance Imaging images in FLAIR, T2WI, PDWI sequences with radiologist guidance and evaluated the correlation of the Magnetic Resonance Imaging findings with sex and age of those patients.

Results: We found a significant difference between sex and PDWI Magnetic Resonance Imaging sequences (P-value=0.001). There were no significant difference between other Magnetic Resonance Imaging sequences (FLAIR and T2WI) and age or sex.

Conclusion: Based on our study, PDWI Magnetic Resonance Imaging sequences is superior than FLAIR or T2WI sequences in detection of Multiple Sclerosis specific plaque in cerebellum.

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P021
Role of histamine and diamine oxidase enzyme in Multiple Sclerosis

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Background/objectives: Multiple Sclerosis is a chronic inflammatory disease of the Central Nervous System (CNS) which is characterized by demyelination and axonal loss. It has been shown that Diamine Oxidase (DAO) enzyme degrades histamine. Histamine has a role in increasing permeability of Blood-Brain Barrier (BBB) that leads to immune cells infiltration of CNS and has a proinflammatory effect via H1R receptor. The objective of the project is to measure serum levels of histamine and DAO enzyme of patients with Relapsing Remitting Multiple Sclerosis (RRMS) in comparison with healthy control subjects.

Design and methods: In a case-control study, venous blood was collected from RRMS patients (n=60) and healthy subjects (n=60) as control group. The serum levels of histamine and DAO enzyme were measured using ELISA method.

Results: Decreased serum level of DAO enzyme and elevated level of histamine has been observed in patients with RRMS in comparison with control group (P-value<0.05).

Conclusions: It should be considered that although defect of DAO enzyme can cause elevated serum levels of histamine in MS patients, low level of this enzyme can also elevate serum levels of histamine which can contribute in pathogenesis of MS.

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P022
Role of adiponectin in multiple sclerosis

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Background/objectives: Multiple sclerosis (MS) is an autoimmune disease of human central nervous system in which chronic inflammation play a pivotal role. On the other hand, production of anti-inflammatory factors by some parts of body including adipose tissue may have protective effects in MS patients. So, in this study we tested the hypothesis that adiponectin has a protective role in MS.

Design and methods: In a case-control study, venous blood was collected from MS patients (n=50), and healthy subjects (n=40) as control group. Plasma levels of adiponectin were measured using ELISA method.

Results: In this study, significantly decreased serum levels of adiponectin were found in MS patients compared with control group (P-value>0.05).

Conclusions: Our data suggested a protective role of adiponectin in MS patients which can be considered as a therapeutic strategy; however further studies are needed to demonstrate adiponectin as a treatment of MS.

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