

nervous system (CNS), caused by CTG repeat expansion on the chromosome 19q. In some patients CNS white matter abnormalities are very extensive, with clinical symptoms including mental changes, hypersomnia, stroke-like episodes and seizures.

Participants, Materials/Methods: We report two unrelated patients with DM1.

Results: One patient, 50-year-old woman, at the time of clinical examination manifested mild temporal and bulbar muscle weakness, slight flexor neck, distal limb weakness, mild intermittent myotonia. She have bilateral cataract, sterility, without cardiac pathology. Elevated CK (274 U/l). Generalized myotonia and myopathic changes in EMG. Skeletal muscle biopsy compatible with myotonic dystrophy. Cerebrospinal fluid (CSF) was normal without immunological activity. The other patient was 37-year-old man. Clinical examination revealed severe temporal, ocular and bulbar muscle weakness, anterior neck and distal limb muscle weakness, mild myotonia as well as the frontal balding, sterility, bilateral cataract, severe myocardial pathology, elevated CK (280 U/l), generalized myotonia and myopathic changes in EMG, muscle biopsy compatible with DM1. CSF was normal.

MRI of the brain in two patients: bilateral, multifocal, subcortical white matter changes, paraventricular and in brain stem, hyperintense on T2-weighted and proton density-weighted images. MRI of cervical spinal cord and MRI cerebral angiography were normal.

Conclusions: We found definite MRI abnormalities in 2 patients with DM1. The morphology underlying this leucoencephalopathy is unknown. Examination of the CSF gave no evidence of an inflammatory process, excluding multiple sclerosis. These changes are probably with vascular etiology, and they are part from wide spectrum of multisystemic disorders in DM1.

7

Pain syndromes in patients with multiple sclerosis

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Multiple sclerosis (MS) is a disease of the central nervous system (CNS), beginning most often in late adolescence and early adult life and expressing itself by recurrent attacks of spinal cord, brainstem, cerebellar, optic nerve and cerebral dysfunction, the result of foci of destruction of myelinated fibers.

In this retrospective study we evaluated 280 patients who have been hospitalised at Department of neurology in last 3 years.

According to the results of our study one hundred and four patients (60%) had either an acute or chronic pain syndrome at some time during their disease. Six patients (2.1%) with acute pain syndromes had episodes of paroxysmal pain attacks in distribution of trigeminal nerve.

Chronic pain syndromes, present for a mean duration of 4.2 years occurred in 154 patients (55%) and included headache (38%), cervical and lumbosacral syndrome (58%) and painful leg spasms in 4% of patients.

8

Gender differences in quality of life in multiple sclerosis patients

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Introduction/Objectives: Multiple sclerosis is a chronic progressive disease that can cause a variety of symptoms and can have many

adverse effects on the patient's lives. The objective of this study was to investigate gender differences in quality of life in multiple sclerosis patients.

Participants, Materials/Methods: 100 MS patients treated at the Neurology Clinic in Sarajevo were involved in this study. Quality of life was measured by using specific MSQOL-54 questionnaire, after the evaluation of internal consistency of adapted Bosnian version. Mann-Whitney and Kruskal-Wallis test were used for the comparisons, while the linear regression analyses were performed to identify significant predictors from sociodemographic and clinical characteristics in predicting MSQOL-54 physical and mental composite scores.

Results: Sixty-nine percentage of patients in the study was female and 31% were male. The mean age of female patients was 40.73 and male patients 37.35. The mean EDSS score of female patients was 3.63 and male patients was 3.58. Female patients had lower physical health composite scores 45.64(36.17–66.45) than male patients 48.57(28.09–70.20), but without statistically significant difference. Mental health composite score was also lower in female patients 55.14(41.85–73.46) than male patients 56.32(39.66–73.97), without statistically significant difference. Significant gender difference was found only on the pain scale of quality of life questionnaire. ON pain scale female patients had significant lower scores (55.00(39.17–76.67) than male patients 76.67(46.67–100.00), $P < 0.05$. Gender differences didn't have significant role in predicting quality of life in our study (linear multivariate regression analyses).

Conclusions: We didn't find gender difference to be the predictive factor of quality of life in MS patients. Although, female patients had predominantly lower QOL scores than male patients. Statistically significant difference was in pain scale which emphasise importance of treating pain in MS female patients.

9

Impact of environmental factors in exacerbation of patients with MS in Kosovo

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Introduction/Objectives: In the literature are lot of study where is mentioned the exacerbation of Multiple Sclerosis according to the group-ages, residence, seasons and the role of these factors in exacerbation. In this study the objective is to research the influence of those factors and to compare the results from the research with information from the literature.

Participants, Materials/Methods: We used the descriptive methods of retrospective research. The sources of information were patients admitted in the Neurological Clinic of Medical Faculty in Pristine University during the period of time 1992–2001. In the research are included 92 patients, 63 women and 29 men. It has been assigned correlation coefficient, Student's *t*-test. Verification of test is done with grade of credibility for $P < 0.05$ for grade of mistake of 95% and for grade of credibility for $P > 0.01$ and grade of mistake of 99.7%.

Results: From the cases included in the study in 35% the occurrence of the disease is between ages 20–29, incidence of MS in 33% of the cases is shown between age of 30–39 with mean age of 31 year old. As about correlation of cronobiological exacerbation in the relapse remitting forms of MS summer if the period of the year the exacerbations are most frequent (55.4% of the patients). And winter is most calm season with 8.7% of exacerbation in our study.

Conclusions: The factors that are in direct relations with exacerbation of MS in our study are: season, residence and age.

10

Intrathecal IgM synthesis in children with multiple sclerosis is associated with a slower progression

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Background: Intrathecal IgM synthesis has been associated with the onset of new relapses and an earlier onset of secondary progressive disease in adult multiple sclerosis patients.

Objective: Investigation of the predictive value of intrathecal IgM by correlation of recent interpretations of CSF data with clinical information from pediatric MS patients.

Methods: Seventy-two children with onset of MS before age of 16y were followed for a mean period of 10.3 years (range: 0.4–22.8 years) evaluated as two groups with ($n = 44$) or without intrathecal IgM synthesis ($n = 28$). Clinical course and EDSS scores at five and 10 years were compared with CSF data interpreted with a non-linear program for statistics of groups in CSF/serum quotient diagrams.

Results: In general, female gender, total number of attacks, number of attacks in the first 2 years and the time interval between first and second attack were associated with a worse prognosis. The cohort of children without intrathecal IgM had a significant higher number of relapses in the first 2 years ($P = 0.033$) with a trend to shorter time intervals between first and second attack and a higher EDSS score after 10 years of MS, though not statistically significant. In the subgroup of girls without intrathecal IgM EDSS score after 10 years was significantly higher compared to the group with IgM synthesis ($P = 0.023$). The contradiction to earlier reports is explained as a bias in the qualitative method or interpretation with a linear IgM Index.

Conclusion: Intrathecal IgM synthesis at time of first clinical manifestation was associated with a slower progression of disability in pediatric MS.

11

The role of conventional MR imaging in diagnosing multiple sclerosis

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Conventional MR as an important paraclinical tool for diagnosing multiple sclerosis (MS) and monitoring therapeutic trials offers by far the most sensitive technique for detecting MS lesions.

Its purpose is especially important in ruling in or ruling out a diagnosis of MS. The ability to detect lesions depends on the pulse sequence, imaging parameters and the field strength.

There is a special MR protocol which has to be performed with application of gadolinium contrast media in order to increase the sensitivity and specificity of conventional MR examination since

the lesion number and location are included in the diagnostic criteria of MS.

Although MS lesion plaques can be found throughout the brain, spinal medulla, orbit and cranial nerves, they usually have specific features which help to distinguish MS from other demyelinating, cerebrovascular diseases or any other diseases that affect white matter of the brain. Conventional MR is also helpful in distinguishing MS variants and subtypes.

Although conventional MR is a powerful paraclinical technique to depict MS lesions, one should bear in mind that there are cases of MR-negative MS. Therefore, to obtain the diagnosis of MS it is necessary to synthesize the results of clinical exams, laboratory tests and all the paraclinical exams as well as their changes in time.

12

Similarity and difference among multiple sclerosis group during psychiatric controls

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Introduction/Objectives: The main of this research was to show what kind of sociodemographic and clinical differences were among the multiple sclerosis during psychiatric controls.

Participants, Materials/Methods: Every of age patient with multiple sclerosis (MS) who was control by psychiatrists at Polyclinic of CHC Rijeka during Mart 2009 was included in this study. The wide sociodemographic and clinic facts were registered in the polyclinical patients card boards.

Results: During Mart 2009 there were 8 patients (m-3, f-5) on their regular controls. Six or 75% of them were more than 40 year old. In 5 or in 62.5% of them MS were diagnosed later. About 87% of them worked longer than 20 years and they were on sick leaves longer than 10 years but 6 or 75% of them contacted with irritant materials on their work places. Mainly of them (6 or 75%) suffered from depression. Only one of them was born in Gorski kotar (the part of Croatia with high incidence for MS) and only one of them had the positive familiar anamnesis according to MS.

Conclusions: The persons with MS often suffered from depression. About 75% of them contacted with irritant materials during their long work time.

13

Magnetic resonance of white matter lesions

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Introduction: Differential diagnosis of white matter lesions (WML) is quite extensive and includes hypoxic-ischemic origin, inflammation, infection, toxic or metabolic agents, trauma, hereditary diseases or even normal aging. One of the most common questions to be answered is: do the lesions represent multiple sclerosis? At the moment there is no single MRI technique that could unambiguously answer this question.

The aim of the study is to get acquainted with possibilities of conventional magnetic resonance imaging (MRI) in detection, characterization and differentiation of white matter lesions.

Materials and methods: 1T or 1.5T MRI scanner were used to examine the patients suspected for WML and images were acquired according to the standard protocol at our institution.

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