

508.7/left 7804.1 ± 737.4 mm³) compared to healthy subjects(right 8155.9 ± 702.1/left 9168.1 ± 1442.5 mm³) were significantly lower($p = 0.014$, $p = 0.001$, respectively).

Conclusions. Ictal EEG patterns were relevant in all epilepsy patients with myoclonic seizures, while interictal EEG discharges only in 64% of patients. Alterations of CT along with bilateral thalamic volume loss support the hypothesis of involvement of aberrant cortico-thalamic networks in patients with myoclonic seizures.

Key words: myoclonic seizures, electroencephalography, cortical thickness, thalamic volume

67. THE EFFECTS OF MIRROR THERAPY ON PATIENTS WITH NEUROLOGICAL MOTOR DEFICIENCY. A CLINICAL PILOT STUDY

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Introduction. Stroke has a major socio-economic impact on the population. The consequences of the disease are fatal in 20 – 35 % of cases, and in 30 – 60 % patients report permanent functional difficulties of the upper limb. Mirror therapy is a relatively new method proposed in the treatment of post-stroke hemiparesis. It is based on the activity of mirror neurons in the neuroplasticity process. The objective of the study was to evaluate the efficacy of mirror therapy in patients with neurological motor deficiency of the upper limb resulting from an ischemic or hemorrhagic stroke.

Materials and methods. This study was prospective, controlled, and pilot. It included a pretest and a posttest. A total of 20 stroke patients were included: 10 in the experimental group (EG) and 10 in the control group (CG). EG underwent conventional rehabilitation program 2 hours a day for 14 days + mirror therapy 30 min/day, 14 days, and GC – only conventional rehabilitation program 2 hours a day, 14 days. The Functional Independence Measure (FIM), Fugl-Meyer Assessment(FMA) were performed at the beginning and at the end of the study to compare changes in motor recovery and motor function after intervention.

Results. The patients from the experimental group achieved significantly higher scores ($p < 0.02$) for FIM and FMA than those from the control group. EG showed improvements of 2.6% in FIM testing, compared with 1.2% in CG. The same differences were found using other examinations: FMA arm score increase by - 9.7% in EG, GC - by 3%; FMA hand score EG – increase by 11%, CG - by 2.5%; FMA total score EG increase by 11% and CG only by 2.8%.

Conclusions. This pilot study proved the efficacy of mirror therapy on the patients with neurological motor deficiency. This technique is a useful tool in treating the post stroke hemiparesis by easiness of implementation, low cost and acceptability. For maximum effect, sessions of mirror therapy should last 30 minutes/day, 5 days a week, 4 weeks.

Key words: mirror therapy, stroke, motor recovery.

DEPARTMENT OF PEDIATRICS

68. ULTRASOUND FEATURES OF THYROID GLAND IN JUVENILE IDIOPATHIC ARTHRITIS

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Introduction. Several interactions exist between thyroid function and rheumatological disorders. Many publications explored the relationship between thyroid diseases (TD) and juvenile idiopathic arthritis (JIA). However, the morphological thyroid changes in patients with JIA were not fully explored. In children affected by JIA the occurrence of other autoimmune diseases has been described in case-reports or small case-series. High-resolution ultrasonography (USG) is the most sensitive imaging modality available for examination of the thyroid gland and associated abnormalities.

Aim of the study. To evaluate ultrasound features of thyroid gland in patients with juvenile idiopathic arthritis.

Materials and methods. Fifty-five patients previously diagnosed with juvenile idiopathic arthritis according to the International League of Associations for Rheumatology Classification criteria were screened for autoimmune thyroiditis. Patients with active disease as well as those in clinical remission were included. The following variables were observed and studied: echogenicity, echotexture, thyroid volume in relation with age and gender.

Results. Our results revealed that 65.6% of patients were girls. The mean age of the studied group was 115.45 ± 6.9 months, the median age at diagnosis was 68.53 ± 8.79 months and the median disease duration was 53.83 ± 8.57 months. The most frequent types of JIA were oligoarticular (43%), polyarticular negative RF (30%) and systemic (21%). The ultrasound examination of thyroid gland revealed abnormalities in 33% cases, most of them cystic changes (28.6%) and hypoechogenicity (23.33%). In 3 cases thyroid nodules were detected. 2 patients presented mean thyroid volume above 2SDS compared to their age reference values. An increased vascular flow pattern on Doppler examination of thyroidal gland was found in 12% of cases. Correlation and regression analysis showed low age at diagnosis and longer duration of the disease to be predictors for those thyroid disorders.

Conclusions. Cystic changes of thyroid gland and hypoechogenicity of thyroid tissue were the most common morphological changes in patients with juvenile idiopathic arthritis. Periodic ultrasound assessment of thyroid volume and texture are recommended in juvenile idiopathic arthritis patients to avoid complications.

Key words: juvenile idiopathic arthritis, thyroid gland, ultrasonography

69. EVALUATION OF DECELULARIZED GRAFTS OF PERITONEUM AND PORCINE PERICARDIUM IN EXPERIMENTAL RECONSTRUCTION OF DIAPHRAGMATIC DEFECTS

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Introduction. Congenital and acquired diaphragmatic defects continue to be a major problem in pediatric surgery. Regenerative medicine could be a valid option in developing techniques for repairing major diaphragmatic defects that could help improve outcomes.

Aim of the study. To identify a biologically acceptable material for closing the major diaphragmatic defects in the experimental models.

Materials and methods. The study included 4 pigs, one month old, weighting 9.8 - 10.2 kg. All animals underwent left subcostal laparotomy, creating a defect of the tendinous part of the hemidiaphragm, which was closed by decellularized grafts of porcine peritoneum (2 animals) and porcine pericardium (other 2 animals). For the decellularization of the biological material sodium dodecyl sulfate was used. The evaluation of the effectiveness of the used implants was based on the postoperative radiological examination and the results of the morphopathological investigations.