### **ABSTRACTS**

# Ho Chi Minh City, Vietnam 12 – 15 November 2017



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Disease and Related Disorders

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erative disorders consisting different subtype characterized by loss of balance, motor coordination etc. Tandem repeat expansion (TRE) plays a major role in disease pathogenesis. India has a higher incidence of TRE with more than 60% of genetically uncharacterized ataxia cases.

**Methods:** We enrolled clinically confirmed but genetic negative SCA cases from ataxia clinic AlIMS. The genome wide identification of repeat locus with at least 4 continuous repeat units present in known SCAs (i.e. CNG, GAA and CCTG) was identified by In-silico approach. The screening of selected subset of loci with the help of fluorescent labeled primer was carried out in controls as well as in patient DNA samples. **Result:** We identified 13281 tandem repeat loci (CAG=2948, CTG=3095, CGG=2601, GAA=4515 and CCTG=122 loci) using In-silico approach and selected 79 loci as primary concern. Screening of 40 loci was done in control samples to find the repeat variability. Interestingly, 12 tandem repeat loci have shown length polymorphisms with the help of capillary electrophoresis. We also screened these variable loci in 95 genetically uncharacterized ataxia patient's DNA samples and validate the results with Sanger sequencing method. We could not find any significant repeat length difference between cases and controls groups. **Conclusion:** Results suggest that few of identified repeat loci are likely candidates for novel type of SCAs. However, expansion at these loci in the Indian population was still not observed because of less number of samples. Since the prevalence of all SCAs is not uniformly distributed across the world. So there is need

#### P-086

# Interrelation of cognitive impairments and quality of life between motor disorders in patients with vascular Parkinsonism

to investigate selected unstable repeat loci in other populations as likely candidates for SCAs.

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**Objective:** To evaluate the quality of life and determine the relationship of cognitive impairment between motor disorders of patients with vascular Parkinsonism.

**Materials and methods:** 48 patients were examined, (29 men (60%) and 19 women (40%)) aged 43 to 78 years, with chronic disorders of cerebral circulation, Hypertonic disease, Parkinsonism syndrome (kinetic-rigid form), developed against a background of hypertensive crisis and vertebrobasilar syndrome with cognitive disorders. The control group consisted of 11 patients with Parkinson disease (mixed form). To confirm the diagnosis of vascular Parkinsonism, the diagnostic criterion by J.C.M. Zijlmaset were used. Al. For neuroimaging, an MRI of 1.5T was used. For a qualitative assessment of the severity of symptoms and the severity of the disease, the Unified Rating Scale of Parkinson's Disease Assessment of the International Society for Movement Disorders (MDS-UPDRS) -II and III parts were used; Scale Hyun and Yar to determine the stage of motor disorders. To determine the quality of life the scale of everyday life Barthel was used.

**Results:** Patients were identified on the Hoehn and Yahr scale with stage 0, stage 1 (6.25%), stage 2 (37.1%), stage 3-6 (12.5%), with 4 stage-2 (4.2%) patients and with stage 5-0. The total score on the Barthel scale was: 26 points in 1 (2%) patients with severe dependence, 78 points in 11 (23%) patients with moderate, 93 points in 36 (75%) patients with mild dependence in daily life.

**Conclusion:** Our results showed that on the scale of Hoehn and Yahr the conducted studies revealed background diseases in the examined patients such as atherosclerosis (60%), Hypertonic disease (47%), obesity (39%), herniated disc VL4-L5 (18%), osteochondrosis (17%), chronic cerebral ischemia (91%), anemia (16%).

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#### P-087

### Features of cognitive functions of Parkinson's disease (PD) and vascular parkinsonism

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**Objective:** To assess cognitive functions and identify clinical differential-diagnostic criteria for Parkinson's disease and vascular Parkinsonism.

**Material and methods:** 26 patients with PD (mean age  $46.2 \pm 2.9$ ) and 20 patients with vascular Parkinsonism (mean age  $68.2 \pm 4.2$ ) referred to the Tashkent Medical Academy in the period 2013-2016. The MMSE scale used to assess cognitive function.

**Results:** At the examination, an earlier onset of PD (up to 49 years) was observed, since the onset of vascular Parkinsonism was late (after 60 years). At the onset of PD, a fast rate of progression was often recorded, and in patients with vascular Parkinsonism slow (p < 0.023). On the MMSE scale, moderate cognitive disorders, mild and severe dementia (p < 0.01) were more common in PD, and moderate cognitive and low-grade dementia (p < 0.01) were observed with vascular Parkinsonism. When examining individual tasks of the MMSE scale, statistically significant differences were found between patients with PD and vascular parkinsonism when performing tasks for orientation in time (p < 0.011), memory (p < 0.009), repetition of the phrase (p < 0.011), and drawing two intersecting pentagons (p < 0.009).

**Conclusions:** The clinical picture of the syndrome of vascular Parkinsonism is characterized by the prevalence of muscle rigidity and akinetic disorders, cognitive impairment with manifestations of a combination of cortical and subcortical disorders. In patients with PD, the jitter-rigid form of the disease predominates, cognitive impairment is predominantly subcortical.

#### P-088

### Features of MRI signs of Parkinson's disease (PD) and vascular parkinsonism

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**Objective:** We aimed to identify instrumental differential diagnostic criterias for Parkinson's disease and vascular parkinsonism using the MRI method.

**Material and methods:** 26 patients with PD (mean age  $46.2 \pm 2.9$ ) and 20 patients with vascular parkinsonism (mean age  $68.2 \pm 4.2$ ) were referred to the Tashkent Medical Academy in the period 2013-2016. All patients underwent MRI of the brain, analyzed signs of expansion of the ventricular system, expansion of the basal cisternal space, sylvium gaps, severity of the diffuse atrophic process.

**Results:** Structural changes in the medulla (p < 0.05) and moderately expressed internal hydrocephalus (p < 0.05) were significantly less frequent in patients with BP, whereas lacunar infarctions and moderately expressed leukoareosis occurred only in single cases. In these cases, analysis of the clinical picture of the disease, the nature of the neurological symptoms, the absence of a complex of vascular risk factors allowed talking about BP, but not about the joint venture. Lacunar foci (p < 0,05) and expressed leukoareosis (p < 0,05) were more often detected in patients with joint ventures, the frequency of their detection correlated with the presence and severity of arterial hypertension (r = 0,412, p < 0,01).



#### P-175

### Stress response of autonomic nervous system during conditioned inhalation general anesthesia for deep brain stimulation

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**Purpose:** It is proved in our previous reports that neuronal activities of subthalamic nucleus (STN) could be well recorded via single neuron microelectrode recording (MER) under conditioned general anesthesia (cGA) by volatile anesthetics, yet, without jeopardize patient's safety during deep brain stimulation (DBS) procedures. In this study, we aimed to investigate the autonomic response under cGA, by which, MER could be properly obtained during DBS.

**Material and methods:** Eighteen patients (female=9; male=9) who met the diagnostic criteria of PD were enrolled into this prospective study. Standard DBS procedures were conducted under cGA with anesthetic level (desflorane/sevoflorane) monitor by heart rate/blood pressure, end-tidal anesthetic concentration, and heart rate variability (HRV). Electrocardiogram was exported for HRV analysis by frequency-domain, using nonparametric method of fast Fourier transformation. Which included the R-R intervals, high Frequency (HF) from 0.15 Hz to 0.4 Hz and low frequency (LF) from 0.04 Hz to 0.15 Hz.

**Result:** Mean age at disease onset was  $47.4\pm11.4$  year-old. At the time of DBS surgery, the mean disease duration was  $12.1\pm8.7$  years. The average levodopa equivalent daily dose was  $983.5\pm355.5$  mg. None of them were demented (MMSE:  $28.2\pm1.3$ ). Acute levodopa test showed significant levodopa effects on UPDRS part 3 (med Off/med On= $48.8\pm11.4/23.0\pm6.9$ , improved  $51.6\pm13.1\%$ ).

When compared the autonomic response by HRV before and during anesthesia, LF was significantly reduced by -13.3±23.6 and HF was significantly increased by 12.6±22.6. During DBS surgery, no significant difference on HRV was noted when comparing the initial surgical side (right STN) to the consecutive left side

**Conclusion:** By increasing the parasympathetic activity, decreasing the sympathetic activity, cGA with volatile inhalation anesthesia might have autonomic protection effect. Inhalation anesthesia could be the preferred anesthetic method for DBS.

#### P-176

## The effectiveness of neurometabolic treatment of Parkinson's disease (PD) and vascular parkinsonism

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**Objective:** To conduct a clinical analysis of the effectiveness of the use of neurometabolic drugs in patients with Parkinson's disease and vascular parkinsonism.

**Material and methods:** 26 patients with PD (mean age  $46.2 \pm 2.9$ ) and 20 patients with vascular parkinsonism (mean age  $68.2 \pm 4.2$ ) were referred to the Tashkent Medical Academy in the period 2013-2016. Neurometabolic drugs (levocarnitine, mexidol, citicoline) are used in a complex manner.

**Results:** There were significant differences between the groups in which active metabolic therapy was performed, in which the increment was respectively 8.9% (p<0.05) and 9.8% (24.0%) in the UPDRS 1 to 12 month scale (p<0.05). The increase in the UPDRS 11 scale was 7.9 (respectively, unreliable) and 8.6%