WCN19-1843

Poster Session 1

Analysis of the effectiveness of the organization of anti-stroke services in Uzbekistan according to the register

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Relevance

The stroke register is the optimal method for determining the morbidity, mortality and effectiveness of the organization of an anti-stroke service

Objective

To analyze the system of medical care for patients with acute cerebrovascular accident in Uzbekistan in the first quarter of 2019, according to the register, with the subsequent improvement of the system of prevention and patient care

Materials-methods

The stroke register in the first quarter of 2019 was carried out by the population-territorial method according to the questionnaire of the national stroke register for patients over 18 years of age. All new and repeated cases of cerebral stroke, developed during the observation period of permanent residents of the Republic of Uzbekistan and all deaths from cerebral stroke were registered

Results

11353 new cases were identified. The first medical examination was performed in 69.2% of cases by an ambulance doctor, in 20.1% by a general practitioner, in 6.1% by a emergency room doctor and in 4.6% by a neurologist in an outpatient clinic. 78.6% of patients were hospitalized, of those hospitalized 74.4% - in the first 6 hours from the time of development, 25.6% after. Mortality rate was 19.4%

Findings

1. The necessity of the implementation of preventive measures on the basis of the cerebral stroke register, which showed a high prevalence of the disease, low public awareness of the stroke and the delayed therapy
2. The study allows us to develop a scientifically-based prognosis and evaluate the effectiveness of the activities of treatment-and-prophylactic institutions for the treatment and prevention of cerebral stroke

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Poster Session 1

Rivaroxiban associated intracranial hemorrhage in atrial fibrillation patients

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Introduction

Rivaroxaban is one of the noval anticoagulant therapy. It act by direct factor Xa inhibition. It is started to be used frequently in due to the convenience in being administered as once daily and doesn't need monitoring. The aim of this study is to review the cases of Rivaroxaban associated intracranial hemorrhage and their outcomes.

Method

We reviewed the electronic charts for all patients on Rivaroxiban between 2014 and 2018. Cases with intracranial hemorrhage identified. Charts were reviewed for demographic data, neurological presentation, radiological findings and the outcomes.

Result

Out of 696 patients on Rivaroxiban, five cases (0.7%) of intracranial hemorrhage identified. Median age was 62. Four cases were intracerebral hemorrhage and one was subdural hematoma. Two patients scored 3 on HAS BLED Score. None had major bleeding from other sites. One patient had hematoma expansion and 2 required surgical intervention. None of the patients received antidote. One patient died as a complication of intracranial hemorrhage.

Conclusion

The incidence of Rivaroxiban associated intracranial hemorrhage is low. No significant hematoma expansion is noted with it. HAS BLED Score in our study did not relate with the development of intracranial hemorrhage.

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Poster Session 1

Pain reducing properties of the Mollii suit on adults with chronic pain syndromes

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Background

The Mollii suit, a garment with 58 built in electrodes, provides transcutaneous electrical stimulation to selected regions across the body. The stimulation induces pain inhibiting mechanisms in the central nervous system (CNS) and affects neurohormonal levels, leading to modulation of the CNS through activation of sensory afferent pathways. It is an approved non-pharmacological, non-invasive treatment to reduce spasticity and improve motor function in individuals with CNS lesions. Anecdotal evidence shows benefit in individuals with chronic pain syndromes.

Aim

Investigate the Mollii Suit effect on pain in adults with different pain diagnoses.

Methods

An open-label uncontrolled study included 200 adults (75 males and 115 females) who used

Mollii suit therapy for one-hour. 72 were diagnosed with Fibromyalgia, 29 with Parkinson,

while other diagnosis had a frequency < 20. Patients were asked to fill a Visual Analogue

Scale (VAS) just before the intervention (VAS-0), immediately afterwards (VAS-1) and twenty-four hours (VAS-24) later.

Results

VAS-0 was 6.5 ± 1.24. A highly significant drop was noted in VAS-1 (3.46 ± 1.4) and VAS-24, (4.72 ± 1.68), paired test p-values <0.001.

A mixed-effect model, used to assess VAS change while controlling for sex, age, and diagnosis type, showed a significant drop in VAS-1 and VAS-24. The VAS-1 coefficient was -3.036 (p-value<0.001) while the VAS-24 coefficient -1.789 (p-value<0.001).

The results were not affected by patients' diagnoses, age or sex.

Conclusion

Wearing the Mollii suit for 1 hour demonstrated significant subjective improvements in VAS scores. Placebo controlled studies are needed to further prove the efficacy of Mollii suit in treatment of pain.

WCN19-1850

Poster Session 1

BMI-intracerebral hemorrhage paradox: The role of inflammatory cytokines and microrna profile

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Introduction

Obesity, classified as BMI>30.0, is a known risk factor for cardiovascular disease. Obesity is associated with a chronic inflammatory state due to increased adiposity. In this study, we compare circulating miRNA profile and expression pattern with inflammatory cytokines in patients with and without obesity following acute intracerebral hemorrhage (ICH).

Methods

After informed consent, patients with acute spontaneous ICH (n=16) were consented and blood samples collected within 48 hrs of admission. Samples were grouped according to BMI-Low (<30) v BMI-High (>30). Total RNA containing small RNA were isolated from Paxgene Blood RNA samples and used to profile 2,515 known miRNA using uParaflo Microfluidic Biochip. Gene expression was carried out using RNAseq and EgdeR. Gene set enrichment analysis (GSEA) for KEGG pathways and Gene Ontology (GO) were done using GAGE and miRWalk 2.0.

Results

In plasma, we found 23 highly expressed miRNA, 11 of which were downregulated in BMI-H. GSEA for KEGG pathways and GO showed enrichment for protein translation and ribosome biogenesis for upregulated genes in BMI-H. Conversely, GSEA of downregulated genes in BMI-H favored inflammation and recruitment of cytokines and signaling. Importantly, KEGG pathway analysis identified TNF signaling and cytokine-cytokine receptor interaction. However, pro-inflammatory cytokines were higher in BMI-H vs BMI-L, notably CXCL1, MMP-9, PF4V1, IL-18R1.

Conclusion

In our study, there was a paradoxical lower expression of pro-inflammatory genes in BMI-H compared to BMI-L. However, protein levels were higher in BMI-H suggesting a possible epigenetic effect from miRNA expression.

WCN19-1857

Poster Session 1

A-hospital-based study of hyper-acute stroke in young from Teaching Hospital of Jaffna, Sri Lanka

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Objectives

To describe the profile of young hyper-acute strokes (HAS) admitted in Teaching Hospital-Jaffna.

Method

This descriptive study was conducted at Teaching Hospital, Jaffna. Data on young (15-45 years) HASs, who fulfilled the WHO's stroke definition, admitted between January-August 2018, were extracted from the Stroke registry and analyzed.

Results

Totally 333 strokes (mean age: 67.34 ± 13.87), consists of 192 males and 141 females, showing male preponderance were recorded.

Among all, 6% (20) were young HASs ranging from 15-45 years (mean: 37.75 ± 7.63). Male: female ratio among young strokes was 3:2 with mean age of 35.66 (±8.76) and 40.87 (±3.75) years respectively. Among the presenting symptoms reported, hemiparesis (95%) was the commonest followed by speech disturbance (60%). Modified Rankin Score (MRS) on admission was <3 in 65% (13) and