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SPEAKERS SESSION

New aspects of cardiovascular diseases, exercise treatments

New aspects of cardiovascular diseases, exercise treatments: The principal cardiovascular disease (CD) are: cerebral vascular accident, myocardium stroke, chest pain, and Atherosclerosis. People with more than 45 years suffer with cardiovascular disease are between 26 to 45 %. These % increase when the age is more than 75 years. The cardiac rehabilitation (CR) meliorates the conditions of those who suffer with CD. The CR involves different approaches as pharmacological therapy, behaviour alterations, education, diet programs, exercise (EX), smoking cessation. The use of EX as therapy is done against some barriers like failure of recognize the benefits of it, poor health, proper access failure, and unpleasant feelings associated with EX. The CR requirements are: education, pre-evaluation, objectives identification, training program, encouragement, and proper feedback. The indications for EX testing and physical training are: acute myocardial infarction with good evolution, revascularization of the myocardium, stable angina, coronary angioplasty, cardiomyopathies, heart transplant, and controlled systemic arterial hypertension. Although, there are some contraindications like prolonged unstable angina, thrombophlebitis, severe aortic stenosis, the use of the therapy is recommended. This is divided into four phases. The phase I includes to prevent the deleterious effects of immobility. The phase II objectives to improve cardiovascular function, the work physical capacity, force, endurance and flexibility, to detect arrhythmias and electrocardiogram alterations, improve the patient psychological profile, and to prepare patients for day-life activities. The phases III and IV are done with long-term EX program for recovery, adaptation and maintenance of cardiovascular system with the purpose curative and preventive. Although, some patients abandon the exercises, there are long-term benefits with the aerobic exercises like increase of muscle strength and endurance, decrease of triglycerides and total cholesterol, decrease of obesity, increase in carbohydrate metabolism, decrease of dyspnoea and angina pectoris, decrease of anxiety and depression, and increase in self-knowledge.

Sebastião David Santos-Filho

Universidade Federal do Rio Grande do Norte, Brazil

Biography

Sebastião David Santos-Filho has completed his PhD at the age of 47 years from Universidade Federal do Rio Grande do Norte - UFRN and postdoctoral studies from Universidade do Estado do Rio de Janeiro - UERJ. He is the scientific collaborator of UFRN biosciences department. He has published more than 141 papers in reputed journals and has been serving as an editorial board member of repute International Journals.

Graded phenomenon (Yasser's phenomenon); A novel Electrocardiographic phenomenon change the arrhythmia directory; retrospective-observational study

Background: Arrhythmias are one of the most serious disorders in cardiovascular and clinical medicine. Understanding the pathogenesis and mechanisms of arrhythmias is very advantageous to the appropriate management and treatment of all arrhythmia types. The "Graded phenomenon" is a novel directory phenomenon for understanding the arrhythmia. The principal of "Graded phenomenon" is based on catching the graded changes in serial ECG tracings or even single one regarding the arrhythmias.

Method of study and patients: My case study was an observational retrospective for a 30 case report series. The study was conducted in both Fraskour Central Hospital (Intensive Care Unit, and emergency room) and Physician Outpatient Clinic. The author reported the 30-cases thorough nearly 4 years, started from Jan 13, 2016, and, ended on February 9, 2020.

Results: The age mean is 58.3 years with male sex predominance (56.67%). The changes in graded phenomenon are classified into: Up-grading; 20%, down-graded; 10%, changed to NSR; 43.33%, changed to AF; 3.33%, changed to sinus tachycardia; 3.33%, therapeutic reversal; 3.33%, fixed –change; 10%, and variable change; 6.67%. The risk in the graded phenomenon is either high (40%), non-risk (43.33%), or still-risk (16.67%). The course in the graded phenomenon is either progressive (43.33%), regressive; 10%, intermittent; 6.67%, constant; 16.67%, transient; 20%, and non-fixed variation; 3.33%.

Conclusions: Graded phenomenon (Yasser's phenomenon) is a novel electrocardiographic phenomenon change the arrhythmia directory. It is a crucial step for understanding arrhythmia. The phenomenon is a new strong guide for monitoring and follows up arrhythmic patients in cardiovascular patients.

Yasser Mohammed Hassanain Elsayed

Middlesex University, Egypt

Biography

An editorial member in several medical journals e.g. Anaesthesia & Surgery Open Access Journal (ASOAJ), Journal of Clinical & Community Medicine (JCCM), Annals of mental health and addiction sciences, Research and Reviews on Healthcare Open Access Journal (RRHOAJ), International Journal of Clinical Case Reports and Reviews, International Journal of Clinical and Medical Case Reports (IJCMCR), Journal of MAR Cardiology, Research International Journal of Anesthesiology.

The Implication of Lysophophatidic acid in Aortic Stenosis

Calcified aortic valve disease (CAVD) affects over six million Americans and is associated with changes in valve leaflets' mechanical properties, resulting in impaired valvular blood flow. Currently, there is no viable pharmacological treatment to stop the disease's progression or activate mineral regression. The only effective therapy to treat CAVD is aortic valve replacement (AVR) or transcatherization (TAVR). It is therefore imperative to understand the molecular mechanisms leading to aortic valve mineralization to identify new pharmacological targets. The accumulation of proteoglycans promotes lipoprotein retention, such as oxidized LDL, which stimulates cell mineralization through the activation of an inflammatory response. We have previously shown that phospholipase A2 (LP-PLA2) uses oxidized phospholipids (OxPLs), which are incidentally transported by Lp(a), as a substrate and produce lysophosphatidylcholine (LPC). We have investigated the implication of lysophosphatidic acid in the mineralization of the aortic valve. The treatment of isolated human valve cells (VICs) with LPC stimulates the activation of osteogenic genes in vitro. In addition, we have shown that autotaxin (ATX), an enzyme that metabolizes LPC to lysophosphatidic acid was highly active in the plasma of patients with aortic stenosis and in isolated VICS that were treated with the calcifying medium in vitro. Furthermore, the administration of LPA to LDLR (-/-)/apoB100/IGFII mice significantly increases the progression of aortic stenosis and promotes the calcification of the aortic valve leaflet. This effect was amplified by activated platelets present in the lesion site of the calcified aortic valve. Indeed, platelets carry ATX which consequently amplify the production of LPA and stimulation of the osteogenic program. These findings suggest the importance of LPA as a possible pharmacological target to decelerate the progression of CAVD.

Rihab Bouchareb

Icahn School of medicine, USA

Biography

Rihab Boucharb has completed her Matser and PhD dgrees in cell and molecular biology from Strasbourg University in France and postdoctoral studies from Heart and Lung Institute in Quebec, Canada. She is an Instructor Ichan school of medecine at Mount Sinai. Her Science is focused on the molecular mechanisms leading to ortic valve calcification. She has published more than 25 papers in reputed journals and has been serving as reviewrs in several journals.

How Well Heart Failure Patients Understand and Adhere To Their Medications - A Review Study at General Hospital Setting.

Background: Heart Failure (HF) is a common medical condition and an important public health issue. This carries with it high mortality and frequent hospitalization. Despite a number of evidence based medications being available , the utilization are not always satisfactory.
Objective: We conducted a study to explore patients' understanding and adherence to Heart Failure (HF) medications at a general hospital setting.

Materials and Methods: We prospectively studied from January 2015 till December 2016, 196 patients (outpatients plus inpatients) of HF at our hospital . The information was gathered by oral interview as well as using questionnaire .

Results: 15% of patients stopped or reduced the dose of diuretics on their own as were thought to interfere in their life style. 36 % patients believed that ACE Inhibitors or ARBs were for blood pressure and therefore they had either stopped or were intending to stop. 43% patients were not keen on taking beta-blocker because of fear of various side effects. 54% of the patients reported that they were not informed by the prescribing physician regarding the purpose and benefits of up titrating the dose of these medication. Patients were ignorant of the role of different HF medications None of the patients who were on Ivabradine knew the role of the drug in HF but at the same time were not informed of any known side effects.

Conclusion: Inadequate understanding and poor adherence to medications is a common problem among heart failure (HF) patients. as shown in our study. Inadequate adherence leads to increased HF de-compensation, reduced exercise tolerance, poor quality of life and higher risk for hospital admission and death.

Syed Raza

Awali Hospital,
Bahrain

Biography

Syed Raza graduated from Aligarh University in India in 1993. After completing his postgraduate degree in Medicine from the same university, he moved to the UK for higher specialist studies. He successfully completed MRCP and CCT and later also awarded Fellow of the Royal College of Physicians of Edinburgh. He was awarded professor John Goodwin prize for outstanding performance in Diploma Cardiology exam at Hammersmith Hospital, University of London in 2001. Dr Raza is Fellow of American College of Cardiology, American College of Chest Physicoans as well as Fellow of European Society of Cardiology. He is also on the committee of Acute Cardiovascular Care. Heart Failure and Cardiovascular Imaging(European Society of Cardiology)

Evaluation the protective effect of nano emulsions containing rosemary on CA1 hippocampus neurons ischemic/ reperfusion injury

Background: Stroke is an important cause of mortality and morbidity worldwide but effective therapeutic strategy for the prevention of brain injury in patients with cerebral ischemia is lacking. Regard to know the mechanism of injury, the use of plant medicine can help, rosemary is a plant that is accessible and unexpansive that have strong antioxidant and anti-inflammatory effects, that may be helpful.

Material and Method: This study had two main parts: in vivo and in vitro. In in vivo part, we divided wistar rats into 8 groups (control, ischemia/ reperfusion, 3 dose of alcoholic extracts of rosemary and 3 dose of aqueous extracts of rosemary), after 21 days of rosemary administration the ischemia and reperfusion was done, finally apoptosis gene and neurons death were assayed in hippocampus and in in vitro part we cultured hippocampus neurons (in 7 groups: control, 3 dose of aqueous extracts of rosemary and 3 dose of alcoholic aqueous extracts of rosemary) and then cell viability was assayed.

Results: We demonstrated that 200 mg/kg aqueous extracts of rosemary decrease the apoptosis gene expression and increase the anti-apoptosis gene expression in compare to ischemia ($p<0.05$) and decrease the neuron death in CA1 region in hippocampus ($p<0.05$). The neurons viability in culture group with 200 mg/ml alcoholic aqueous extracts of rosemary had no significant difference with control.

Conclusion: Present study demonstrated that cerebral ischemic tolerance induced by rosemary extracts pretreatment, the alcoholic aqueous extracts of rosemary in 200 mg/kg dose was more effective to protect of hippocampus.

Key world: Rosemary, Hippocampus, Ischemia /Reperfusion

Nazanin Gharehkhani

Tehran medical Sciences Islamic Azad University,
Iran

Biography

Nazanin Ghareh Khani have mainly worked on the the efficiency of nano emulsions and Neuroscience. Indeed, I have tried to present an research related to the Preparation of nano emulsions containing hydro and alcoholic rosemary and sage examination of its effects on nerve cells. There also exist other projects that I have been collaborating in them. In one of them an stroke was given to male rats and the impacts of nano emulsions was examined with checking the number of healthy neurons by Nissl , PCR,... staining method. And I was able to identify the stroke prevention drug. And another, I do case is working on the effect of drugs on the rats brain and research Drugs are therapeutic. My article in this regard is in publishing process and I can do all kinds of animal models including (Epilepsy, Seizures, MS, Parkinson's, Alzheimer's, Wide range of Cancers, Diabetes, Heart Reperfusion, Kidney Reperfusion, Brain Reperfusion, Burns, Wounds, Sutures).

A Factor in Research Work - The Individual Researcher & Their Life

Thomas Edward Nordahl

USA

"Life is a journey that Must be traveled no Matter how bad the roads and accommodations."

-Oliver Goldsmith

The life-long path in research is like the path in life in general, with both rough and smooth patches of roads. Many factors affect the direction a would-be researcher takes, including early mentoring, inherent abilities to do research, availability of monies, and personality of the researcher, including willingness to take risks. In my own case, I had a love for mathematics and algebra, which was fostered in High School and College. I was hired as Assistant Professor, Visiting and Univ of South Carolina, Columbia. It was only visiting as just as I arrived for my interviews and talk, the State had a financial crunch. I worked for 2 years and in the second year I did my pre-med courses and with the Dean's letter of recommendation, I went into Medical School. Then, I did 2 years of Psychiatry at UC Davis Medical Center and then went to NIH for training in PET. My career has also had 2 more major changes one affected by a serious car accident.