



International Conference on
Chronic Diseases
&
6th International Conference on
Microbial Physiology and Genomics
August 31-September 01, 2017 Brussels, Belgium

Keynote Forum Day 1

Chronic Diseases & Microbial Physiology 2017

CO-ORGANIZED EVENT

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Hiroshi Bando

Tokushima University and Kitajima Taoka Hospital, Japan

Low carbohydrate diet with Morbus (M) value research and medical care including exercise and music therapy

Background: Recently, metabolic syndrome has been prevalent and not easy to treat with nutritional and exercise treatment persistently. We have treated thousands of metabolic patients with Low Carbohydrate Diet (LCD) for years and reported several papers concerning LCD, and ketone bodies and Morbus (M) value in research.

Subjects & Methods: Subjects included 52 patients with diabetes mellitus, and basal biomarkers were measured including blood glucose, HbA1c, TG, HDL-C, LDL-C, uric acid, and so on. They were given usual calorie restriction (CR) diet (60% carbohydrate, 1400 kcal/day) on day 1-2, and super LCD on day 3-14. Daily profile of blood glucose seven times a day and M value were investigated.

Results: By the level of M value, subjects were classified into four groups. M value ranged from 13.6 to 425.6 on day two (CR) and from 9.0 to 82.1 on day four (LCD). The average HbA1c in four groups were 6.2%, 7.0%, 8.1% and 9.0%, respectively. Blood glucose on day four was significantly decreased compared with those on day two in each group. M value was significantly decreased from day two to day four in group two, three and four.

Discussion & Conclusion: The efficacy of LCD was observed from day two to day four, with significant decrease in glucose and M value. The carbohydrate amount was decreased from 210 g (CR) to 42 g (LCD) per day, resulting in decreased average glucose and M value. These findings suggest that M-value would be useful marker for treatment of T2DM clinically and research in glucose variability. Author has continued several treatment and care for Integrative Medicine (IM) and Complementary and Alternative Medicine (CAM), such as exercise therapy, music therapy with piano playing. Author will show various trials for patient-oriented practice of medicine in the key note lecture.

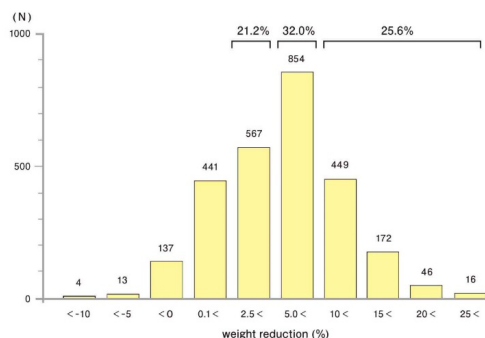


Fig. 1. Weight reduction rate in 2,699 cases. Five hundred sixty-seven subjects (21.2%) had a weight reduction of 2.5% to 4.9%, 854 (32.0%) had 5.0% to 9.9%, 683 (25.6%) had 10% and more than 10%. Thus, 2,104 subjects (78.8%) showed weight reduction of 2.5% and more than 2.5%.

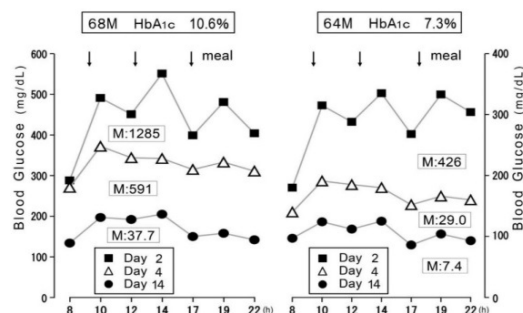


Figure 2: The changes of M value from CR to LCD

Biography

Hiroshi Bando is a Physician with specialties in "Diabetes, primary care medicine and life style-related disease". He is the President of Annual Congress of 8th Japanese Primary Care Association and Editor of *Diabetes Research Open Journal*.

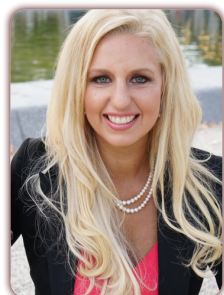
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Krista Burns

American Posture Institute, USA

Prevention strategies for the development of digital dementia

Sedentary individuals with flexor dominant posture and technology over utilization are at a greater risk for developing digital dementia. Poor posture is a modern day epidemic that is affecting our society, but can be prevented with posture rehabilitation and proper posture habits. Tech neck demonstrates postural decline from a musculoskeletal perspective, and digital dementia demonstrates the decline in brain function associated with poor posture and the over utilization of technology. Patients presenting with digital dementia demonstrate common symptoms associated with dementia and physiologic changes in their brain. These patients present with sensory disassociations impacting the frontal lobe and creating developmental disorders characterized by lack of motivation and empathy, and difficulty in acquisition of skills associated with traditional forms of learning. Motor skills are compromised from physiologic changes of the motor cortex, sensory cortex, and vestibular system. The purpose of this presentation is to introduce the concept of digital dementia and to demonstrate meaningful methodology of patient care implementation for health care professionals to utilize with their patients. Participants will gain useful strategies of postural neurology that are relevant to the needs of modern day patients. This presentation will demonstrate brain based posture analysis and correction techniques as a prevention strategy for the development of tech neck and digital dementia. Sedentary individuals with flexor dominant posture can improve neurologic function with proper postural habits while engaging in technology utilization. Recommendations are made for brain based postural correction strategies.

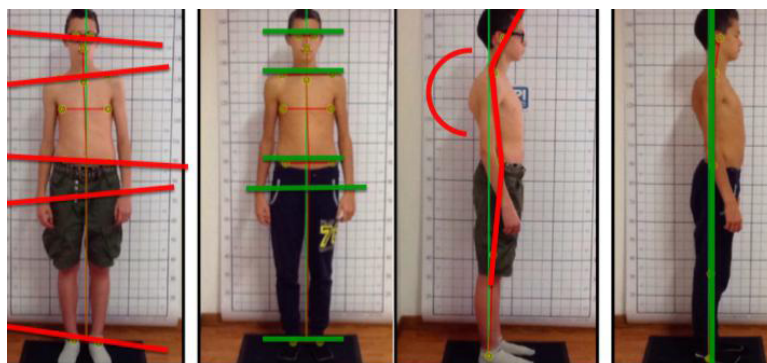


Figure 1: Example of flexor dominant posture pre and post intervention. Images with the red lines demonstrate the patient before the intervention, and images with the green lines demonstrate the patient's posture post intervention.

Biography

Krista Burns completed her PhD in Health Administration with emphasis on Global Health Policy. She is Doctor of Chiropractic, and Postural Neurologist. She has participated in over 1000 hours of advanced education in Posture, Neurology, and Human Physiology. She is the Co-founder of the American Posture Institute and the author of the textbook Principles of Posture.

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Higinio T Mappala

Jose R. Reyes Memorial Medical Center, Manila, Philippines

The Efficacy of Bile Acids in the treatment of Non-alcoholic Steatohepatitis: A 10-year Systematic Review

Non-alcoholic fatty liver disease (NAFLD) is one of the most common forms of chronic liver disease which may progress to non-alcoholic steatohepatitis (NASH). Currently there are no therapeutic strategies for such disease. Only lifestyle modification through diet and exercise were proven to afford some benefit in patients with NAFLD. No pharmacologic agents have so far been approved for the treatment of NAFLD or NASH. Therefore, most clinical efforts have been directed at treating the components of metabolic syndrome, namely obesity, diabetes, hypertension and dyslipidemia. Other interventions are directed at specific pathways potentially involved in the pathogenesis of NAFLD, such as insulin resistance, oxidative stress, proinflammatory cytokines, apoptosis, bacterial overgrowth, and angiotensin pathway. This lecture aims to show the potential of Bile acids as a promising therapeutic option for NAFLD. This is a 10-year Systematic Review of the effects of Bile Acids on Non-Alcoholic Fatty Liver Disease (NAFLD). This 10-year review shows that, alongside diet, exercise and weight loss, Bile Acids may yet prove to be an effective targeted treatment for Non Alcoholic Fatty Liver Disease.

Biography

Professor Higinio T. Mappala is a distinguished physician and gifted medical researcher with 30 years of clinical experience, as well as a prolific communicator and lecturer in both academic and clinical fora. A board-certified specialist in Internal Medicine with board-certified subspecialties in Gastroenterology, Endoscopy, Clinical Toxicology and Pharmacology, and Clinical Nutrition. He is University Professor, a Dean of the School of Medicine, and Administrator at the undergraduate, graduate, and postgraduate levels; an author of more than 50 scientific papers. As a prolific lecturer, he has been a Focused lecturer on NAFLD for more than 10 years.

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Notes:



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Keynote Forum Day 2

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Ashim Malhotra

Pacific University Oregon, USA

Targeting the cardiolipin biosynthetic machinery in KRAS-mutant pancreatic cancer: A search for novel therapeutics

Pancreatic cancer (PCa) has only 6-8% five-year survival rate kills as many as 53,000 Americans each year, and active-duty military personnel and veterans are at a high risk for this fatal disease. Therapy is challenging due to substantial drug resistance and lack of knowledge about how the Kirsten Rous Sarcoma (KRAS) oncogene mutated in 90% cases, affects PCa cell biology. Our approach to address this knowledge gap is to identify synthetic lethal targets (SLTs). SLTs are non-KRAS pathway proteins which when targeted by drugs will initiate apoptosis in the mutant but not the wild type KRAS cells. We hypothesize that the enzymes that make and remodel the mitochondrial phospholipid cardiolipin (CL), cardiolipin synthase (CLS) and tafazzin respectively, are SLTs for PCa. Reason is that suppressing these enzymes specifically in PCa cells with KRAS mutations will compromise the mitochondria in these cells by depleting CL, which will induce apoptosis. We screened FDA-approved drugs for their ability to cause apoptosis and suppress tafazzin and CLS expression in mutant but not wild type KRAS PCa cells and identified the selective estrogen receptor modulator raloxifene as the prime candidate. Our objective is to use raloxifene as a small molecule probe to investigate the involvement of tafazzin and CLS in maintaining and renewing mitochondria in KRAS-mutant PCa cells. Aims of this study are to: Evaluate the effect of suppressing CLS and tafazzin on mitochondrial viability and production; investigate the effect of CLS and tafazzin suppression on mitochondrial function in KRAS-PCa and; determine the mechanism of raloxifene-mediated suppression of CLS and tafazzin. Our proposal delineates the regulation of mitochondrial viability, production and function by mutant KRAS gene, while establishing CLS and tafazzin as SLTs and raloxifene as a potential candidate drug for PCa therapy.

Biography

Ashim Malhotra serves as an Assistant Professor of Pharmacology at School of Pharmacy, Pacific University in Oregon. He is a Pharmacist and Expert in Mitochondrial Pharmacology. He has served as a grant Reviewer for National Science Foundation (NSF) and private biomedical foundations in the United States. He has also served as Chair of the national sub-committee on strategic planning for Biological Sciences Section of the American Association of Colleges of Pharmacy (AAPC). During his career, he has been felicitated with awards for teaching, service and scholarship including the American Society of Pharmacology and Experimental Therapeutics Pharmacology Educators award in 2017, the 2016 Pacific University Junior Faculty Award, the 2016 AAPC Teacher of the Year Award, and along with his colleagues, the 2014 AAPC Innovations in Teaching Award. Prior to joining Pacific University, he worked at the New York University School of Medicine for five years and the New York Methodist Hospital for two years. He received his PhD in 2006 from St. John's University in New York, USA.

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Timothy D Law^{1,2,3}

¹Ohio University Heritage College of Osteopathic Medicine

²Department of Family Medicine,

³Department of Geriatric Medicine

Telemedicine in the Heartland: Managing Chronic Disease from Afar

For many decades Telemedicine has been adopted and utilized in a vast array of health care settings. Increasing access to care, lower cost of care and improved patient satisfaction have all been touted as benefits of this brand of medicine. Telemedicine in this context is the use of various technologies to remotely diagnose, monitor and treat disease. In the rural areas of the world chronic disease is one of the hardest things to convince patients to seek care for due to travel and time away from home. In the United States, eighty-six percent of the nation's \$2.7 trillion annual health care expenditures are for people with chronic and mental health issues. Cardiovascular disease alone costs the nation on average \$316 billion back in 2013. In one look at over 141 randomized controlled trials, in which 148 telemedicine interventions were tested, 108 found positive effects and only 2 reported negative effects. Any chronic disease intervention would have to be applied for a long period of time to have an effect and needs to be prioritized into the disease management process. I have been utilizing telemedicine for 20 years on a rural population of Amish, Mennonite and Plain communities in the Heartland of Ohio. Conclusions and Significance: This presentation will point out the increased access to care management among the study population. The differences between telehealth and telemedicine as well as the economic impact to providers and the insurers will be reviewed. I will also demonstrate the advances and the capabilities available for handling chronic diseases from a distance utilizing real world case examples.



Figure1: Conceptual interactions between remote patient data and health care provider networked from afar.

Biography

Timothy D Law is a board certified physician with two decades of clinical experience, and serves as the Medical Director of the Clinical and Translational Research Unit (CTRU) as well as the Ohio Musculoskeletal and Neurological Institute (OMNI) at Ohio University and the Science and Health in Artistic Performance (SHAPE) clinic. During the first decade of my career my primary focus was on military medicine and acute care. During the second decade of my career I transitioned into administration in my roles as a physician for the Federal Employee Program (FEP) (the largest managed health care company in the Blue Cross and Blue Shield Association), medical director of Acute Care for the Hardin Memorial Health system (a 10-county regional hospital and health services system in Kentucky), and CEO of, and practicing physician in, Vine Grove Family Medicine, P.S.C. (primary care practice with 10,000 patients). I have transitioned into an active scientist role with a focus on clinical and translational research on treatment of musculoskeletal pain conditions, and preventative and rehabilitative medicine for older adults and patients with orthopedic and neurological disorders as they relate to fatigue and aging and injury.

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