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Scientific Tracks & Abstracts
August 23, 2017

Obesity & Bariatric Surgery 2017

INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Holiday Inn Toronto International Airport
Toronto, Canada

Susan Brown, J Obes Eat Disord, 3:2
DOI: 10.21767/2471-8203-C1-002

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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Providing bariatric surgery to optimize candidacy for kidney transplantation

Susan Brown
KentuckyOne Health, USA

Introduction: Vitreoretinal Bariatric surgery has proven to be a necessary adjunctive surgery to improve patient's eligibility for successful kidney transplantation by reducing their BMI to within acceptable limits. In practice, however, the path of a potential kidney patient is different than a typical bariatric patient. Identification of potential patients, pre-operative work up, post-operative follow up and planning between multi-disciplinary teams including bariatric, hospital, transplantation and nephrology, demands strict communication and planning. Pre and post procedural protocol must be outlined and managed to maintain a safe and efficacious environment for bariatric/transplant patients.

Speaker Biography

Susan Brown has completed her Bachelor's degree in Nursing and has been working as Nurse since 23 years. She has experience directly with transplantation and bariatric operations as a Surgery Nurse and is currently a Certified Bariatric Nurse in the office setting. She is the Bariatric Coordinator for the West Market for KentuckyOne Health.

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Yoko Takahata, J Obes Eat Disord, 3:2
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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Usefulness of circuit training at home for university female students

Yoko Takahata
Baika Women's University, Japan

Statement of the Problem: Students of university tend to decrease the amount of exercise compared to their previous years and start to drink alcohol at a certain age. It may turn out to be a problem in their later years when they start to decrease the metabolic rate and be the cause of the lifestyle related diseases. It is known to promote basal metabolism is important to prevent obesity. Researchers have reported that the expansion of lung capacity by exercise, giving impetus to brown adipocyte, increasing muscles, choosing the specific food to consume and so on are important for promoting basal metabolism. However, it is not clear if the circuit training at home has an impact on increasing muscles effectively while decreasing fat. The purpose of this study is to show what kind of exercise will affect university females' health including gaining muscles and boning density.

Methodology: Forty one females were recruited with a mean age of 18.5 (range- 18 to 20 years). The follow-up after the intervention was conducted 2 months and 3 months later. The circuit training structured by each subject in choosing the type of exercise from the list researcher made and asked them to do it for 15 minutes at least 3 times in a week. Those subjects were divided into 2 groups of the subjects who had exercise as ordered and the others.

Findings: People in both the groups have increased "stiffness scores" representing bone mass at 2 months and 3 months later but the changes in other factors were different. The muscle mass was gained in the performed training group and the body fat percentage was gained in the other group.

Conclusion: Even a small amount of exercise affects the health of the university female students and it will be related to the health at their later lives.

Speaker Biography

Yoko Takahata had been working as a Public Health Nurse to prevent diseases and promote the health of resident in a town in Japan. She has been training students in the Nursing Department of the university. Her research is also focused on preventing diseases and promotes health, especially in the younger generation.

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Notes:

Surendra Ugale, J Obes Eat Disord, 3:2
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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Evolution of newer procedures for increased safety and efficacy

Surendra Ugale
Asian Bariatrics Hospital, India

Even after 60 years of bariatric surgery, we still do not have any permanent or perfect solutions for long-term control of obesity. The dilemma still remains, whether to use the least invasive or non-invasive procedures and accept lesser gains or use complex procedures giving greater benefits, along with its accompanying disadvantages. With the gastric band getting abandoned in many centers (68% during its peak in 2008 to 10% in 2013), along with gradual reduction in usage of gastric bypass (52% in 2008 to 32% by 2014), the sleeve as a standalone procedure has garnered a greater following worldwide (0 to 37% of the world total from 2003 to 2013). Many studies and clinical practices have established that in the mid-term, many sleeve patients have regained weight with recurrence of some comorbidities. This led to a search for procedures more effective than the sleeve with much lesser side effects of the duodenal switch (<1.5 % of all bariatric procedures worldwide). Newer procedures like sleeve gastrectomy with transit bipartition or ileal interposition, mini-gastric bypass and gastric plication are being increasingly used worldwide, especially in South America and Asia, with fewer centers in Europe and North America. These have simpler techniques and/or greater safety and efficacy. Sleeve with bipartition allows ileal stimulation with normal duodenal access; mini-gastric bypass is a technically simpler bypass with fewer complications but more malabsorption, while plication being modestly effective has the advantage of reversibility. Individualization of procedures would make these most effective.

Speaker Biography

Surendra Ugale is the Chief of Bariatric & Metabolic Surgery at Asian Bariatrics Hospital, India and Visiting Professor of Surgery at KLE University, India. He has been passionate about laparoscopic surgery since 1991 and helped in spreading it to many parts of India and abroad. His team is the 2nd in the world to start Laparoscopic Ileal Interposition for Type-2 Diabetes in 2008 and he has introduced a new scoring system, diabetes severity and remission score. His work is now especially focused on metabolic surgery for diabetes & obesity and he is a Proctor at national and international centers.

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Emilian Rejane Marcon, J Obes Eat Disord, 3:2
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PESO III: Physical exercise program for obesity class III - adherence and benefits

Emilian Rejane Marcon
Hospital de Clínicas de Porto Alegre, Brazil

In obese individuals, the exercise provides metabolic, neuromuscular, anthropometric and psychological benefits. It is an important preventive factor and reduces the effects of obesity and promotes a protective effect against the development of cardiovascular disease (CVD). PESO III is a program of physical exercises performed in a public hospital in Brazil that included aerobic and stretching exercises performed in two weekly sessions of up to 60 minutes each, and patients are encouraged to increase the number of steps walked daily. Participants performed the exercise sessions according to their physical condition. They were instructed to perform the exercise within the scheduled time frame, but were permitted to stop it at any time as necessary. Patients participating in this program achieved a significant reduction in body weight, pain and an improvement in functional capacity. This model, we evaluated in a clinical trial with objective to investigate the effect of an exercise program with and without cognitive-behavioral therapy, compared to a control group, on weight, functional capacity, and cardiometabolic profile of morbidly obese individuals in pre bariatric surgery. In this research, we observed that, in 4-month, twice-weekly supervised program of low-intensity physical activity that encourages individuals to adopt more active lifestyle can positively interfere in evaluated parameters with and without the aid of group sessions. We will discuss about how to motivate and prescribe exercises for morbidly obese individuals and to assess the importance of exercise in pre and post bariatric surgery is fundamental.

Speaker Biography

Emilian Rejane Marcon, Physical Educator, is a Specialist in Sports Training and has completed her Master's degree in Health Sciences: Cardiology and PhD degree of Medicine in Surgical Sciences. She works at the Hospital de Clínicas of Porto Alegre, which is a university hospital in the southern region of Brazil. She is a member of the staff of Bariatric Surgery of this hospital and is a Students' Adviser at the University for required and non-required internships at Federal University of Rio Grande do Sul. She coordinates an exercise program for patients with morbid obesity before and after bariatric surgery (PESO III) and works as a Researcher in this area. She is the President of the Nucleus of Physical Health and Rehabilitation of the Brazilian Society of Bariatric Surgery (SBCBM).

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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Evolution of type 2 diabetes mellitus in patients undergoing vertical sleeve gastrectomy or Roux-en-Y gastric bypass

César Antonio Martínez-Ortiz
Mexican Social Security Institute, Mexico
National Autonomous University of Mexico School of Medicine, Mexico

Introduction: Diabetes is common in obese patients in Mexico. Risk factors affecting the distribution and frequency of type 2 diabetes mellitus (T2DM) and their complications are well known. It is often associated with overweight or obesity, which in turn can cause insulin resistance and elevated blood glucose levels.

Objective: The objective of the study is to determine if there is remission of T2DM in patients undergoing vertical sleeve gastrectomy (VSG) or Roux-en-Y gastric bypass (RYGB) and, if so, after which one is greater.

Methods: Descriptive, observational, longitudinal and retrospective analysis of data from 33 patients with T2DM and obesity who underwent vertical sleeve gastrectomy or Roux-en-Y gastric bypass, preoperatively and at 12-month follow-up was done. Diabetes remission was defined as glucose below the diagnostic thresholds for T2DM (HbA1c < 6%, fasting glucose < 100 mg/dl if HbA1c was not available) and abscense of active hypoglycemic medication.

Results: Thirty-three patients with diagnosis of obesity and T2DM were divided into two groups: 8 patients, 1 man (3.03 %) and 7 women (21.21 %), VSG; and 25 patients, 6 men (18.18 %) and 19 women (57.50 %), RYGB. After 1 year of follow-up, there was remission in 7 (21.21 %) of 8 patients in the VSG group and in 24 (72.72 %) in 25 (93.93 %) patients in the RYGB group.

Conclusion: Bariatric/metabolic surgery can reverse or improve T2DM in obese patients, and is more effective than medical interventions and lifestyle modifications for weight loss, glycemic control, remission of T2DM, improvements in other cardiovascular risk factors and the decrease of cardiovascular diseases.

Speaker Biography

César Antonio Martínez-Ortiz attended the MD program at National Autonomous University of Mexico School of Medicine, and both the General Surgery Residency Program and Bariatric/Metabolic Surgery Fellowship at the National Medical Center of the Mexican Social Security Institute, where he is currently Senior Surgeon and Professor both in the Department of Surgery and in the Obesity and Metabolic Diseases Clinic. He also obtained the Master's degree in Health Directive Management at the University of the Valley of Mexico, Laureate International Universities. He is a young Surgeon, interested in clinical and surgical practice, education and research, and hopes to stand out internationally.

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Mervyn Deitel, J Obes Eat Disord, 3:2
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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Confusion between type 1 (T1D) and type 2 (T2D) diabetes among bariatric surgeons

Mervyn Deitel
MGB-OAGB Club, Canada

Introduction: Type 1 diabetes (T1D) is an auto-immune disorder with permanent destruction of the insulin-secreting beta cells.

Methods: This is a literature review.

Results & Description: In juvenile T1D, no insulin is present, and thus glucose cannot enter cells; thus, metabolism switches to oxidation of fatty acids, which can lead to diabetic keto-acidosis. Adult-onset T1D, called LADA (Latent Autoimmune Diabetes in the Adult), has onset between ages 30–55 and makes up 9-25% of diabetes in adults. LADA may be detected by anti-GAD, anti-insulin and/or anti-islet cell antibodies. Endogenous insulin (from pancreatic beta cells) disappears when there is an extremely low C-peptide (connecting peptide, normally split off from pro-insulin). LADA progresses to no surviving beta cells. T1D has vascular complications (retinal, renal, leg) if insulin replacement is inadequate and permits glucose to remain elevated, but generally does not develop metabolic syndrome. Obesity can occur in T1D if the patient takes excessive insulin, gets hypoglycemia, which leads to more intake of food (a vicious cycle). This can be controlled by dietary surveillance; if not, bariatric surgery for obese T1D can decrease weight, HbA1c and amount of exogenous insulin needed (and can lead to episodes of hypoglycemia), but the T1D patient will always require insulin.

Conclusions: In normal-weight T1D, bariatric surgery has no indication (GLP-1 from the lower bowel has no beta cells to act upon). T1D requires caloric control, which may be difficult after a bariatric operation. T2D is a different disease. Initially, the obese T2D patient has both elevated plasma insulin and insulin resistance. However, in longstanding uncontrolled T2D, muscle and fat cells (starved for glucose) continually signal a compensatory increase in insulin production; this leads to beta-cell apoptosis, ultimately requiring exogenous insulin. Bariatric surgery, and especially the MGB-OAGB, results in cure of T2D in a very high percentage of cases.

Speaker Biography

Mervyn Deitel has completed his graduation in Medicine from the University of Toronto in 1961 and trained in Surgery at Beth Israel, Bellevue and NY University Hospitals in New York, Roswell Park Cancer Institute in Buffalo and Trauma at Parkland Memorial in Dallas. He has started IV Hyperalimentation (TPN) in 1967 in Canada and started Bariatric Surgery in Canada in 1970 with JI-bypass, later gastroplasties and RYGB. He was a Past Professor of Surgery and of Nutritional Sciences at University of Toronto and was Founding Member of the ASBS in Iowa 1983. He was the President of ASBS 1994-1995 and was awarded the Outstanding Achievement Award of the ASMBS Foundation in 2004. He has founded the Obesity Surgery journal in 1991 and was the Editor-in-Chief from 1991-2008. He was awarded the IFSO Golden Pin in 1997 and IFSO Honorary Life Membership in 2003. He has 202 papers in PubMed and wrote 5 textbooks on Nutrition and on Bariatric Surgery, 21 invited book chapters and has made >500 invited presentations. He served on the Editorial Board of *Journal of American College of Nutrition*, and is an Advisor in Nutrition to the *American Journal of Family Practice*. He is Chief Advisor of the International Bariatric Club.

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Bart Smet et al., J Obes Eat Disord, 3:2
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August 23-24, 2017 | Toronto, Canada

Moderating the enthusiasm of sleeve gastrectomy: Up to fifty percent of reflux symptoms after ten years in a consecutive series of one hundred laparoscopic sleeve gastrectomies

Bart Smet, Yannick Mandeville, Ruth Van Looveren, Peter Jan Vancoillie, Xander Verbeke, Katrien Vandendriessche, Patrick Vuylsteke and **Paul Pattyn**
AZ-Delta ziekenhuis, Belgium

Objectives: Laparoscopic sleeve gastrectomy (LSG) has become a popular one-stage bariatric procedure with a proven efficacy on weight loss. However, the relationship between LSG and gastroesophageal reflux disease (GERD) remains a subject of debate. The objective is to determine the long-term effect of LSG on weight loss and reflux disease.

Methods: A retrospective analysis of 100 consecutive patients who underwent a LSG between January 2005 and March 2009 was performed. The effect of LSG on weight evolution and the relationship between pre-operative and post-operative GERD symptoms and PPI dependency was analysed.

Results: A mean follow-up of 8.48 years (range 6.1-10.3) was achieved. We observed a long-term % excess weight loss (%EWL) of 60%. A significant increase in reflux symptoms and use of PPIs was seen. Seventeen percent suffered from reflux disease preoperatively, versus 50% at the end of the postoperative follow-up (RR=2.5882, 95% CI [1.6161-4.1452], p-value=0.0001). The chance of developing *de novo* reflux after LSG was 47.8% (32/67). Reflux disease was present in 7 of the 26 patients who underwent a secondary Roux-en-Y gastric bypass (RYGB). In 4 of these 7 patients, reflux disease disappeared completely after the secondary RYGB (57.1%).

Conclusions: A satisfactory long-term effect on weight loss was achieved. However, a significant increase in GERD and PPI dependency after LSG was noted. New onset GERD was seen in more than 40% of the study population. Conversion to RYGB is a good option in patients with refractory reflux disease after LSG.

Speaker Biography

Bart Smet has completed his graduation as General Surgeon with special interest in Bariatric Surgery in 1998 from Leuven University. Currently, he is working in a regional hospital in Roeselare, Belgium as Consultant. The department is performing about 450 bariatric procedures, covering the full spectrum from bypass over sleeve to malabsorptive procedures and redo surgery. He has presented bariatric topics on several national and international meetings and was faculty member of multiple bariatric masterclasses and expert meetings. Clinical immersion, live surgery by tele mentoring and proctoring abroad are regularly organized within his department.

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Notes:

Video Presentaions
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Mostafa S Elkady, J Obes Eat Disord, 3:2
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A dramatic response to albendazole in a case of a large hepatic focal lesion mimicking hepatocellular carcinoma

Mostafa S Elkady
Benha University, Egypt

A 81 years old lady, presented with anorexia and severe epigastric pain for 2 weeks. It was of gradual onset and slowly progressive course, dull aching in character, and was associated with vomiting and jaundice. There was no GI.bleeding or change in bowl hobbits. There was no history of ascites, or any other abdominal swellings, Inaddition , there was no constitutional manifestations like night sweat, night fever, Her HBA1C was 5.8%. At presentation ECG revealed no abnormalities however Abdominal ultrasound was done and revealed mild bright hepatomegaly with hypoechoic left lobe hepatic focal lesion at segment II, about (7x6.8cm) with multiple calcifications (hydatid disease??) and chronic calcular cholecystitis with normal spleen and no ascites. Subsequently, AFP and hydatid serology was requested and the results were 1.11 mg/ml and 1/80 respectively. Triphasic CT was also done and revealed a left hepatic lobe segment II hypodense focal lesion (8x7 cm) with no contrast enhanced at all phases of study and calcular gall bladder. The patient received Albendazole and UDCA t.d.s for 4 weeks then follow up ultrasound was done and revealed a hypoechoic hepatic focal lesion (10x8.6 cm) with calcifications suggesting hydatid diseases with normal spleen and no ascites, one month latter follow up ultrasound was done revealed the same left lobe hepatic focal lesion but measuring (8x6 cm). The patient continued the same treatment and ultrasound revealed decreasing size of the hepatic focal lesion to (7x5 cm) and later on after 6 weeks, it reached (2x2 cm) with decreasing ESR and hydatid serology was negative.The patients in now symptom free and kept on follow up.

Speaker Biography

Mostafa Mostafa Elkady , M.D is currently a Professor and Chairman of Gastroenterology Department, Faculty of medicine, Benha University, Egypt, in addition to Research and Clinical Fellow in Gastroenterology Division TTH, University of Toronto, Canada (1994-1995), He is a Member of EASD NAFLD Group, Member of Colleague of Physician and Surgeons of Ontario, Member of the Royal Society of Tropical Medicine and Hygiene. And Currently he is a Consultant of Gastroenterology and Diabetology at Police Hospital Cairo Egypt. He is also a reviewer for Digestive Disease and Science.

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Darline K. El Reda, J Obes Eat Disord, 3:2
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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Lifestyle and behavioral determinants of long-term weight change in women

Darline K. El Reda
Kuwait University, Kuwait

Objective: To describe the determinants of 12-year weight change among a cohort of middle-aged women.

Methods: In 1991/1992, 49,259 women across Sweden were recruited into a cohort. In 2003, 34,402 (73%) completed a follow-up survey. Demographic, lifestyle and health characteristics, including weight were collected using baseline and follow-up surveys and twelve-year weight change and substantial weight gain (≥+5.0 kilogram [kg]) were calculated; association between baseline characteristics and odds ratios (OR) with 95% confidence intervals (CI) of substantial weight gain were estimated.

Results: The majority (81%) of women experienced weight gain during the twelve-year follow-up. Being above average weight (64.5 kg) at baseline [OR =1.20, 95% CI: 1.14, 1.26] and smoking 1-9 [OR=1.10, 95% CI: 1.01, 1.20], 10-19 [OR=1.30, 95% CI: 1.21, 1.39], or ≥20 cigarettes daily [OR=1.17, 95% CI: 1.04, 1.32] increased a woman's odds of experiencing substantial weight gain. However, risk of substantial weight gain was reduced among women 45-50 years of age [OR=0.79, 95% CI: 0.73, 0.85], women reporting high alcohol consumption [OR=0.90, 95% CI: 0.83, 0.98], and those with medium [OR=0.93, 95% CI: 0.87, 1.00] or high [OR 0.83, 95% CI: 0.77, 0.90] physical activity levels. Smoking cessation (OR=1.88, 95% CI: 1.68, 2.11) and decreasing physical activity (OR=1.58, 95% CI: 1.48, 1.68) were associated with increased odds of substantial weight gain as compared to women who reported no smoking at baseline and follow-up and women who reported no changes in physical activity, respectively.

Conclusions: The majority of women experienced weight gain during middle-age. Women who start middle-age at an above average weight or as a cigarette smoker may be uniquely challenged in their weight management efforts, highlighting the value of population-specific determinants of weight gain in guiding obesity prevention efforts in women.

Speaker Biography

Dr. El Reda has over 15 years of experience in public health practice across a variety of settings, such as city, county, state, federal, and private sector in the United States. Most recently, she has been focused on the application of epidemiologic and statistical principles in the assessment of primary care practice delivery for 4.5 million insured patients in Michigan using health insurance claims data. In addition, she has been an Adjunct Assistant Professor with Michigan State University's College of Human Medicine teaching graduate courses in epidemiology, biostatistics, and health informatics since 2012. She is an alumni of the Centers for Disease Control and Prevention's Epidemic Intelligence Service and has published on the topics of maternal and child health, primary care practice transformation, disease prevention programs, and infectious disease outbreaks. She is currently an Assistant Professor with the faculty of Public Health at Kuwait University.

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Tasleem A. Zafar, J Obes Eat Disord, 3:2
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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

High amylose cornstarch improves blood glucose concentration, but does not affect satiety or food intake in healthy individuals

Tasleem A. Zafar
Kuwait University, Kuwait

Statement of the Problem: High fiber diets are known to promote satiety and sustain normal blood glucose through delayed digestion and gradual glucose absorption (1). The impact of high fiber diets on body weight regulation is thought to be due to their low energy density (2). Starches that resist digestion in the small intestine are known as resistant starches (RS) and contribute to the total fiber load. Because of the epidemic prevalence of overweight, and obesity worldwide (3-4), RS is considered to incorporate in commercial food products to curtail body weight gain. High-Amylose (5). Cornstarch (HAMS) is classified as a high fiber food due to its high RS content. However, the role of HAMS on energy intake is unclear. The aim of the present study was to explore if the consumption of RS will lead to higher satiety and lower food intake (FI) or will it promote more FI to compensate for the energy dilution of the RS. Methodology of the study included four test drinks administered to healthy volunteers as 75 g glucose (G) or amylose (A), 75 g 50:50 glucose-amylose (G-A) and artificially sweetened water control (C) after an overnight fast once a week. Pizza meal was served after blood glucose and appetite measurement were recorded at 0, 15, 30, 45, 60, 90 and 120 minutes by using a portable glucometer and visual analogue questionnaire.

Findings: both glycemic response and blood glucose area under the curve were lower in the order as G > G-A > A=C ($p<0.0001$). However, FI and satiety were unaffected by the test treatments ($p > 0.05$). No association was found between blood glucose and FI

Conclusion: HAMS improves blood glucose response but it's no effect on satiety and FI demands a careful interpretation of the dietary fibers specifically resistant starches on body weight management. The research was funded by the Research Office of Kuwait University, Grant # FF01/16.

Speaker Biography

Tasleem A. Zafar, Associate Professor, earned her Ph.D. degree in Foods and Nutrition at Purdue University, USA. She obtained a substantial research experience as Research Associate at Purdue, and University of Toronto, Canada. She has a vast experience of more than 30 years of teaching graduate and undergraduate students and guiding research. Her focal research interests concentrate on to explore a breakthrough for the epidemics of obesity and diabetes through functional food ingredients. She has published more than 20 original research articles in peer-reviewed journals and contributed chapters to four scholarly books published by Wiley-Blackwell Publishing Co., New York, USA and by IGI Global, USA. She has given invited talks, oral presentations and chaired several sessions at international conferences. She is an honorary editor of the Paki Journal of Home-Economics (PJHE) and has served as an honorary reviewer for many prestigious journals.

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Marjan Farshadi, J Obes Eat Disord, 3:2
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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Prevention of Non-Alcoholic Fatty Liver Disease (NAFLD) and increasing lipid metabolism

Marjan Farshadi
Toronto Liver Centre, Canada

As a chronic disease, non-alcoholic fatty liver disease (NAFLD) is recognised to be the hepatic manifestation of obesity and metabolic syndrome, extending from simple steatosis to more severe nonalcoholic steatohepatitis (NASH), involving inflammation and apoptosis with or without fibrosis and cirrhosis. NAFLD is the most frequent hepatic condition in developed countries and can lead to steatohepatitis, cirrhosis and even liver cancer. Thus, managing NAFLD is one of the issues that need to be considered in the treatment of obesity. The exact mechanism of the onset and development of NAFLD is not clear although some possible role players have been identified: oxidative stress, increased fatty acid syntheses, and inflammation. Up to the present time, conventional and modern medications used to treat NAFLD are not adequate and may lead to serious adverse effects. The perennial herb Curcuma longa L., with tha common name of Java turmeric, has been used as a traditional therapeutic plant to decrease the sensitivity of the liver to lipid peroxidation, as well as beneficial properties against cancer, abnormally reduced fatty acid levels, and inflammatory disorders in adipose tissue. Studies have shown that consuming turmeric supplements improves serum glucose indices and leptin levels in patients with NAFLD. Ginger is another dietary supplement that might be effective in improving NAFLD-related metabolic diseases.

Speaker Biography

Marjan Farshadi has her expertise in science-based natural remedies. After years of experience in research, natural health, medicine and pharmaceuticals, she established a research-based company to continue in-depth research and development of natural health products based on scientific evidences. She is working in Toronto Liver Centre studying liver diseases, mainly fatty liver disease

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Workshop
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Shaweta "Shay" Vasudeva, J Obes Eat Disord, 3:2
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Shaweta "Shay" Vasudeva

Shaythecoach, USA

The mind-body integration technique for obesity

This workshop is a hands-on, interactive experience supporting the research of Malkina-Pykh, IG (2012) and the works of authors Wilder, Kris (2007), Kelly, Michael (2001), McCarthy, Patrick (1995) and Milne, Hugh (1995). Their works cover associations between the Mind-Body Connection and the importance of integrating a holistic approach to reach optimal levels of fitness, thereby impacting levels of obesity in individuals. Focus is placed on a health based movement practice within the scope of the client's abilities. The workshop will cover breathing techniques, beginning and simple movement, and the promotion of a positive and nonjudgmental support system. The methods will be taken from personal experience of teaching movement based practices since 2004 successfully with elementary to college aged students. The combination of the three allows for awareness of the human body and how truly interconnected it is. When we as people eat, we put food into the human body. When we breathe and move, we train the human body. When we connect with other like-minded people, we are connecting to other human bodies. Through this awareness, practice and connection students can start to have a sense of belonging and thereby impacting levels of obesity.

Speaker Biography

Shaweta "Shay" Vasudeva is a Certified Personal Fitness Trainer, Certified Nutritional Therapist and Black Belt Karate and Tai Chi Instructor for Shaythecoach, a company she founded as a result of her passion to help others become the best version of "SELF." She does this by offering Personal Fitness Training and Nutritional Programs, Karate and Tai Chi classes. She has earned a Bachelor of Arts and Master of Arts in Psychology and has had a very successful career as a Substance Abuse Counselor.

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INTERNATIONAL OBESITY, BARIATRIC AND METABOLIC SURGERY SUMMIT AND EXPO

August 23-24, 2017 | Toronto, Canada

Blood glucose pattern in type-2 diabetics and healthy individuals after consumption of parboiled rice

Tasleem A. Zafar, Samar Hamad and **Jiwan Sidhu**
Kuwait University, Kuwait

Statement of the Problem: The type of starch in the carbohydrate ingested foods influences the postprandial blood glucose concentration (1-2). The alteration of the physicochemical nature of the starch granule can modify its effect on the postprandial glycemia (2). Rice, a highly consumed staple grain falls in the high glycemic index foods category (3-4). A relatively high incidence of diabetes is reported in rice-consuming countries (5). Not much information is available on its pre-absorptive physiological handling by the type-2 diabetic individuals. The aim of this study was to compare the blood glucose patterns in type-2 diabetic and healthy individuals after parboiled rice (PBR) to white (WR) or brown rice (BR).

Methodology: Both diabetic and healthy subjects (n=35) were fed the three cooked rice samples in a portion of 50g of available carbohydrates on three separate days with a washout period of one week. Blood sugar level were tested at 0, 15, 30, 45, 60, 90, and 120 min after completely ingesting the rice samples.

Findings: The post-prandial blood glucose response of PBR in healthy subjects was significantly lower both in the absorptive period such as at 15, 30, and 45 min as well as in the glucose disposal period of 60, 90 and 120 min compared to WR or BR. The blood glucose concentration for the diabetic subjects was, however, significantly lower only in the glucose disposal period and not in the glucose absorptive period after the PBR (Figure1).

Conclusion and significance: Parboiled rice significantly reduced glycemic response in both study populations. Furthermore, differences were observed between the two groups in the pre-absorptive rice metabolism. Both white and brown rice produced similarly high blood glucose concentration among both groups of subjects at all time point of testing. Parboiled rice consumption is recommended a better alternative to WR or BR for diabetic people.

Speaker Biography

Tasleem A. Zafar, Associate Professor, earned her Ph.D. degree in Foods and Nutrition at Purdue University, USA. She obtained a substantial research experience as Research Associate at Purdue, and University of Toronto, Canada. She has a vast experience of more than 30 years of teaching graduate and undergraduate students and guiding research. Her focal research interests concentrate on to explore a breakthrough for the epidemics of obesity and diabetes through functional food ingredients. She has published more than 20 original research articles in peer-reviewed journals and contributed chapters to four scholarly books published by Wiley-Blackwell Publishing Co., New York, USA and by IGI Global, USA. She has given invited talks, oral presentations and chaired several sessions at international conferences. She is an honorary editor of the Paki Journal of Home-Economics (PJHE) and has served as an honorary reviewer for many prestigious journals.

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MicroRNA-378 in metabolic inflammatory stress and hepatic insulin resistance

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Statement of the Problem: MicroRNAs (miRNAs) are non-coding RNAs with a length of 19 to 25 nt that are involved in posttranscriptional gene regulation by binding to the 3'-untranslated regions (3'-UTR) of targeted mRNA and impacting diverse cellular processes, including cell differentiation, energy metabolism and chronic inflammation. MicroRNA-378a (miR-378a) has been reported to regulate adipose tissue browning and cancer development. However, its role in cellular stress signaling and hepatic insulin resistance has not yet been investigated. Findings: Here we reported that expression of hepatic miR-378a was upregulated by metabolic inflammatory inducers, such as high fructose feeding, bacterial lipopolysaccharide (LPS) and inflammatory cytokine TNFα. The elevated miR-378a subsequently targeted the 3'-UTR of PPARα which compromised mitochondrial fatty acid β-oxidation and induced mitochondrial and ER stress. miR-378a was further found to directly interact with the dsRNA binding motifs within the dsRNA activated protein kinase PKR and activated the kinase to sustain the inflammatory stress and blunt the insulin signaling in the liver. Genetic depletion of miR-378a rescued hepatocytes from mitochondrial and ER stress, systemic inflammation and insulin resistance induced by fructose and LPS. Conclusion & Significance: This study, for the first time, demonstrates that miR-378a is a mediator in metabolic inflammatory stress and contributes to the onset of insulin resistance. It further unveils that certain miRNA is capable of directly interacting with and activating protein kinase PKR to sustain the stress signaling between mitochondria and ER. This discovery greatly broadens the physiological function of miRNAs by demonstrating that, in addition to target genes on the mRNA level, miRNAs are able to interact with RNA binding protein(s) and directly exert its regulatory effect on the protein levels. Results from this study may provide rationale for using miR-378a as a pharmaceutical target in the prevention and treatment of insulin resistance and related metabolic syndrome.

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