
Keynote Forum

November 21, 2019

Clinical Nutrition 2019



17th International Conference on
Clinical Nutrition and Fitness
November 21-22, 2019 | Singapore



Kensuke Nakamura

Hitachi General Hospital, Japan

Enteral nutrition and diarrhea in critical care

Enteral nutrition EN is an important delivery of energy and protein for critically ill patients. However, diarrhea often occurs by various factors, one of which is EN types and delivery methods. Which types of EN possibly cause diarrhea? Although no cause-and-effect link has been clarified for any mechanism, long-term enteral nutrition, high-osmolality, low-fiber formula, bolus feeding, overly rapid increase to the target, and postpyloric enteral nutrition have been regarded as the risk. Pectin, which becomes solid in the stomach, would mitigate diarrhea. We conducted the propensity score matched study to compare 199 traditional liquid EN TLEN and 199 pectin containing liquid EN PLEN in our ICU and showed the significant decrease of diarrhea event in the PLEN group. We also conducted the randomized control trial to compare protein rich EN (1kcal/ml, including 9.2g protein, 3.7g lipid and 7.5g carbohydrate in 100ml) and fat rich EN (1kcal/ml, including 4.2g protein, 5.5g lipid and 9.7g carbohydrate in

100ml) in the critical care, in which the femoral muscle volume was set as a primary outcome. Diarrhea incidence rate was lower in protein rich EN. In this presentation, I would like to discuss which types and features of EN would be associated with diarrhea, and how we can avoid it. Because we should not discontinue the EN only by diarrhea as the guidelines suggested, we should consider choosing and change the EN types. Some of EN would have advantage for diarrhea by some significant mechanisms.

Speaker Biography

Kensuke Nakamura is currently serving as a doctor at Hitachi General Hospital, Japan. He completed his PhD in the year of 2014 at Tokyo University, Japan. Also, he is an expert in the area of PICS/ICU-AW, Critical Care Nutrition, ICU Rehabilitation, Muscle Training.

e: mamashockpapashock@yahoo.co.jp

 *Notes:*

Clinical Nutrition and Fitness

November 21-22, 2019 | Singapore



Chaiyavat Chaiyasut

Chiang Mai University, Thailand

Trend and evidence of probiotics as a complementary therapeutic agent for metabolic disorders and brain function

Evidence proved that gut microbiota plays a critical role in human health and diseases. The host metabolic activities and the composition of microbiota are closely associated with host immune system that is linked to metabolic and cognitive behaviour of the host. Probiotics are defined as live microorganisms that exhibit health benefits on the host when administered in adequate amounts. The possible mechanism of health-promoting activities of probiotics is associated with followings: positive alteration of gut-microbiota, secretion of antagonistic substances, and neurotransmitters. The probiotic and probiotic-based fermented foods are considered as a safe and complementary therapeutic agent for the management of metabolic disorders and cognitive declines. The recent studies revealed that the probiotics improved the health status of obese people by altering the gut microbiota, and the regular consumption of probiotic is desirable to preserve the health benefits. In the case of diabetes, the consumption of probiotics may reduce the fasting blood glucose, blood pressure, improved the lipid profile, glycaemic and inflammatory status. The multi-strain probiotic formulations

exhibited positive results in most of the studies. Probiotic supplementation improved the mood state, reduced depression, stress, and anxiety, and reduced the severity of the autism. Not all the probiotic supplementations provide positive health benefits. It is purely based on the strain, combinations, dosage, duration, supportive activities, and host physiology. However, the safety, stability and shelf life of probiotics product must be carefully studied to ensure their beneficial impact on metabolic disorders and mental health.

Speaker Biography

Chaiyavat Chaiyasut C is an assistant professor and the director of Innovation center for holistic health, nutraceuticals and cosmeceuticals at the Faculty of Pharmacy, Chiang Mai University, Thailand. His research area is probiotics, fermented foods, complementary, alternative and holistic therapeutic approaches for metabolic disorders and brain function. He has over 110 publications that have been cited over 850+ times, and his publication H-index is 16 and has been serving as an editorial board member of reputed Journals. He is the principal investigator for several research projects.

e: chaiyavat@gmail.com

 Notes:



Marina Indriasari

Bogor Agricultural University, Indonesia

Effect of calcium consumption on the spasticity in the spastic rat

Spasticity is a stiff muscle condition because the muscles receive impulses continuously. Calcium ions play a role in the ability of nerves to stimulate muscle contraction. Spasticity occurs because of the continuous flow of Ca^{2+} into the sarcomere which causes hyperexcitation. This study aimed to analyze the effect of calcium consumption on the changes spasticity and the relation of calcium levels in the blood and muscle to the spasticity. The experimental study was conducted on 42 male Sprague-Dawley rats aged 12-14 weeks. The 15-d intervention was conducted on six groups of spastic rats by administering 20 g of feed containing 50 mg, 100 mg, and 200 mg of calcium, it also received 100 mg, 200 mg, and 300 mg of calcium lactate supplementation. The experimental rats were induced with 80 mg/kg BW of Erythrocin B through the tail vein to make them spastic. This study showed a tendency of increased spasticity along with the increased dose of calcium given to the subjects. There were significant differences ($p=0.007$) in changes in spasticity between groups. The significant differences ($p=0.02$) in changes in blood calcium levels. The Spearman's correlations test on the changes in blood calcium levels and changes in spasticity showed a positive coefficient correlation ($r=0.097$) with a p-value of 0.54. An increase in blood calcium levels and a large

decrease in spasticity were found in the group receiving 100 mg calcium intake in 20 g of feed. The calcium levels in muscles had a significant correlation with spasticity ($p=0.038$, $r=0.810$). The calcium levels in the muscle had a strong correlation with blood calcium levels ($p=0.041$, $r=0.748$). The biggest decrease in spasticity occurred after 100 mg of calcium were given to the rats for 15 days, and it was considered as an optimal dose. The calcium levels in the muscles had a strong correlation with blood calcium levels and the spasticity of the spastic rat.

Speaker Biography

Marina Indriasari has completed her PhD at the age of 45 years from Bogor Agricultural University, Bogor, West Java, Indonesia. She is the lecturer of Faculty of Medicine and Health, Jakarta Muhammadiyah University, Jakarta, Indonesia. She has 8 publications that one of them have been viewed over 200 times and she has been serving as an editorial board member of reputed Journals. She runs a therapy clinic independently and practices as a physiatrist in a private hospital in Sukabumi, West Java, Indonesia. As her dedication to children with special needs, she consents to the habilitation of children's growth and development. She has been realizing the development of health services and children's growth and development therapy. She builds an inclusion school for children with special needs by establishing a friend's home foundation.

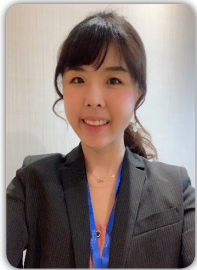
e: indriasarimarina@gmail.com

 Notes:

17th International Conference on

Clinical Nutrition and Fitness

November 21-22, 2019 | Singapore



Chyn Boon Wong

Morinaga Milk Industry Co Ltd, Japan

Maternal and infant health - What can HRB probiotics offer?


Bifidobacteria are among the first microbes to colonise the gut and are being purported as beneficial for human health. Several research studies have reported that lower abundance of bifidobacteria in the gut precedes disease development, including gut disorders, allergy, obesity and mental disorders. Increasingly, bifidobacteria have been integrated into a range of food products and supplements as functional probiotics ingredients. It has been speculated that bifidobacteria supplementation during pregnancy and in the neonatal period might reduce some maternal and neonatal adverse outcomes. However, not all bifidobacteria are the same, and not all confer the same benefits to the host. It is increasingly evident that there are subtle but important differences between bifidobacterial species of different residential origins. This presentation will delve into the superiority of Human-Residential Bifidobacteria (HRB), which are the natural inhabitants of human intestine,

and their roles in driving maternal and infant wellbeing.

Speaker Biography

Chyn Boon Wong, received B.Sc. Degree with first class honours in Microbiology in 2011 from the University of Putra Malaysia, and PhD from University Sains Malaysia in 2016, specializing in the development of lactic acid bacteria and their bioactive molecules as nutraceuticals. In December 2016, she joined Morinaga Milk Industry Co., Ltd. Japan and has been engaged in research activities related to the functional benefits of probiotics. Her main research interest focuses on the role of the gut microbiota member, bifidobacteria, in human health. She has been conducted research to explore the new functionality of bifidobacteria and the significance of the use of human-residential bifidobacteria (HRB) for human supplementation. She has been the recipient of USM Fellowship in University Sains Malaysia for three consecutive years, and the participant of Regional Bio-Asia Program in Institute for Agricultural Research (INRA), Angers-Nantes, France in 2013.

e: chynboon020@morinagamilk.co.jp

 Notes:

17th International Conference on

Clinical Nutrition and Fitness

November 21-22, 2019 | Singapore



Nisha Vikraman

St Teresa's College, India

Role of diet in prevention of diseases

Nutritional requirements do not change appreciably with age among adults. However, with increasing age total caloric intake is gradually reduced, but among normal people living in the community dietary deficiencies are seldom found. The reduction in food intake and the tendency of old people to eat the same diet day after day makes them potentially vulnerable to possible deficiencies in specific vitamins, minerals, and protein. Good nutrition plays a significant role in determining the health and well-being of older people and in delaying or reducing the risk of diseases such as stroke, heart disease, diabetes etc. Eating less fruits and vegetables is responsible for close to three million deaths worldwide every year. In addition, dietary fat seems to be associated with various cancers and nutritionally unbalanced diets, which are often associated with diabetes, can play a significant role in increasing the risks of developing coronary heart disease. The deficiencies leading to cardiovascular risk which is because of clogging of arteries also relates to Alzheimer's. Alzheimer's involves a slower, more subtle decline over months or years.

Instead of cholesterol-filled plaques in arteries, plaques made of a substance called amyloid develop in the brain tissue itself, associated with the loss of memory and, eventually, loss of life.

Speaker Biography

Nisha Vikraman has completed her PhD in 2007 from Kerala University, India, on the topic "A study on the effect of maternal anaemia on outcome of pregnancy in Thiruvananthapuram district". She is an Assistant professor and recognized Research guide in Department of Home Science and Center for Research at St. Teresa's College Ernakulum, India. She is presently guiding two research scholars. She has received Commonwealth Scholarship for MSc. Dementia Studies from University of Stirling. She has done projects on "Sensitizing Consumer on food Adulterants - a sustainable health perspective" for UGC Major project and also done minor projects in "Evaluation of post reproductive stress in women, reflecting on nutritional causes, consequences and remedial strategies". She has done publications in journal and also involved as speaker in community based nutrition programmes and actively involved in developing extension programmes for the community. Her areas of interest are research in the field of nutrition and ageing.

e: nishavn2012@gmail.com

 Notes: