Optimum health and nutrition for our ageing population

Held on 24 October 2012 – Melbourne

ILSI SEAR Australasia and The Omega-3 Centre brought together a team of experts to deliver a one-day symposium on health and nutrition in our ageing population.

Professor Sandra Capra (University of Queensland) noted that the ‘elderly’ are not a homogenous group, and it is important to interpret dietary guidance systems in context, since such guidelines are based on a well population. Ageing populations contain groups who live with chronic diseases, take medications and are frail, and current dietary guidelines may be inadequate for their needs. The challenge is providing a diet which is nutrient dense but contained in smaller amounts of food while remaining palatable and acceptable. Capra finished with an illustration of lateral thinking - Let them eat cake. A cupcake with a dollop of cream representing 500kJ, 2.5g protein, 6g fat, 15g carbohydrate and 0.4g fibre, compared to a slice of white bread with 1.5 tsp of butter … for some, which is more enjoyable to eat?

Dietitian Georgie Rist from MyGene reported from her study that 8% of community-living people aged 65 years and over, who receive home nursing care have malnutrition and 35% are at risk. Community living elderly who are malnourished have reduced quality of life; are more likely to be admitted to hospital or seek help from a GP, and are less likely to recover from the effects of malnutrition. Yet mixed messages pervade the public health agenda. A case in point is the strong message about high cholesterol which has resulted in some older adults avoiding high fat foods when they need to increase their calories. Since community living older adults are not routinely tested for nutritional status, this highlighted a need to address nutrition concerns in this vulnerable group.

Dr Les Cleland (Royal Adelaide Hospital) presented recent investigations which showed fish oils (FO) to be effective in the treatment of rheumatoid arthritis (RA) by decreasing tender joint pain and the duration of morning stiffness. However since no single medicine is effective in treating RA, FO should be used in combination with other medicines appropriate to the stage of the disease.

Professor David Colquhoun (University of Queensland) cautioned on the use of ‘SPIN’ in the press over particular health claims. These might have excessive beneficial or deleterious effects and were largely based on poorly designed trials, inadequate meta-analysis and over-blown media advertising. Colquhoun commented on a number of well-conducted trials that have presented strong results and gave the example of the GISSI trial showing an efficacious effect when one gram or more per day of EPA/DHA was administered to patients with heart failure. At 3 months, total mortality decreased 41%, and at 4 months sudden death decreased 53%. Colquhoun concluded his seminar by saying we should get away from the notion of a low fat diet because food is meant to be enjoyed and not seen as a punishment. And finally, it was pointed out that it is useless to tell people to eat more fish - if you don’t eat fish, you won’t eat fish – you need supplements.

Professor Merlin Thomas (Baker IDI Diabetic Complication Lab), noted that diabetes affects 350 million people worldwide, 1.5 million of which are Australians and every second person diagnosed is an older person. Diabetes increased the risk of an early death (every year of diabetes is a year reduced from life) while Australians of Asian origin and indigenous Australians are at higher risk than other Australians. By the end of
2012, over four million deaths will be attributable to diabetes. Abdominal fat is the major risk factor and diet with exercise is needed.

Yvonne Coleman, (Nutrition Consultants Australia) reported that until recently the interaction between medicines and food has largely been concerned with absorption and reducing side effects. A shift in focus occurred in the 1990s with the discovery that grapefruit juice enhanced drug availability. As the elderly are often high consumers of medicines, she advised that although food-drug interactions are usually negative some interactions may enhance drug effectiveness and so require the patient to take a reduced dose. Coleman noted there are numerous mechanisms where drugs impact on nutritional status, but few known interactions are integrated in clinical practice, making it important for those currently on medication who wish to change their diet, to discuss with their doctor before doing so.

Professor Eric Reynolds (Melbourne Dental School and Oral Health CRC) noted that oral diseases – dental caries, periodontal disease (gum) and mucosal diseases (particularly cancers) - have become a major public health issue since the population has become older. Nearly 1 in 4 Australian adults have moderate to severe periodontitis and the prevalence of oral cancer is increasing. There is now strong evidence that has linked chronic oral diseases with six systemic diseases - diabetes, cardiovascular disease, preterm and low weight births, chronic inflammatory diseases such as arthritis and cancers. The good news was that major oral diseases are preventable with daily oral hygiene; following a nutritious diet (milk and cheeses are an excellent source of calcium which is good for the teeth); early diagnosis of problems and; effective treatment. Fluoride-containing toothpastes and mouthwashes have significantly decreased tooth decay, but flossing is the most important element of dental hygiene. Bacteria that gather above the gum line can only be removed with effective flossing as it disturbs the pathogenic biofilm, reducing colonisation. Tongue brushing with a biocide paste was also recommended.

Professor Andy Sinclair (Deakin University, Melbourne) noted that in 2011, approximately 298,000 older Australians were living with dementia, a progressive and incurable disease that causes a major loss of neurones, leading to cognitive impairment. Alzheimer’s disease and vascular dementia are the most common forms of dementia. Risk factors shown to decrease risk included consumption of fish and foods high in antioxidants, exercise, maintaining a healthy weight and continuous learning. Risk factors thought to increase risk include age, head injury, consumption of a high fat diet, obesity, smoking, cardiovascular related diseases such as hypertension and diabetes, and HRT. DHA is a major fatty acid found in neuronal cell membranes and helps promote the connections between brain cells. Vascular health plays an important role in neural health. Sinclair hypothesised that since nutrition is linked with cardiovascular and blood vessel health, it followed there should be an association between nutrition and neural health via neural blood vessels. Some studies have shown improved memory performance in mild cases of Alzheimer’s disease with a nutritional drink rich in omega 3 fatty acids. Some trials have found that EPA and DHA improved depression scores in elderly people with mild cognitive impairment.

Dr Vicki Flood (University of Wollongong), reported results from the Blue Mountains Eye study where a nutritional supplement including vitamins C and E, beta-carotene and zinc reduced progression to acute macular degeneration(AMD) in 25% of cases with early signs of AMD. Other findings from the study showed a number of dietary factors help reduce the risk of AMD. These included fruits and vegetables (particularly leafy green vegetables), consumption of oily fish which is high in omega-3 fatty acids at least twice a week, foods high in lutein such as leafy green vegetables and enriched eggs, eating nuts and seeds once or twice a week, three to four small servings of lean red meat for a good source of zinc, and oils high in omega-3 fatty acids.

Dr Solomon Yu, Queen Elizabeth Hospital Adelaide, discussed sarcopenia in older people. Sarcopenia is generally considered to be age-related loss of muscle mass, with a corresponding loss of muscle strength. It is associated with an increased risk of physical disability, contributes to frailty, loss of independence, increased falls and in the long-term, a significant increase in healthcare costs. It is estimated that a 10% decrease in sarcopenia prevalence could result in an annual saving of $1.1 billion. Yu concluded that current research

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suggests a multifactorial approach in the management and reduction of sarcopenia; exercise and nutritional therapy being key factors.

Professor Caryl Nowson (Deakin University Melbourne) noted older adults are at a greater risk of injury due to falls. Every 5-6 minutes an Australian is admitted to hospital with an osteoporotic fracture. Contributing factors are many; low physical activity and body weight, low lean and fat mass, compromised vitamin D status, malnutrition, low calcium and medical conditions such as osteoporosis, dementia, osteoarthritis and stroke. The commonly used BMI ranges are not appropriate for the older population. For people older than 65 years a BMI below 24 increased mortality, whereas BMI between 24 and 34 reduced mortality. A range of nutritional factors have been found to reduce falls and fractures. These include vitamin D and calcium supplementation, resistance training particularly when combined with adequate protein consumption. A daily intake of between 1.2-1.5 g/kg of body weight is suggested to alleviate age-related muscle loss. These levels are higher than the current recommended daily intake.

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