ISSUE 10 | VOLUME - 23 | OCTOBER 2018

IMPA NEWS

THE OFFICIAL NEWS LETTER OF THE INDEPENDENT MEDICAL PRACTITIONERS ASSOCIATION

IMPA News

A very successful CME / CPD programme was held on "Management of Epilepsy" by Dr. Arjuna Fernando MD, MRCP, Consultant Neurologist and "The beauty of Breast Milk" by Dr. H.T. Wickremasinghe, MBBS, MD, DCH, FRCP, FCCP, Senior Consultant Paediatrician with fellowship and dinner sponsored by the A Baur & Company at the OPA Auditorium on Sunday 21st October 2018.

The 89th AGM of the IMPA will be held on Sunday 16th December 2018 at 5.30pm at the IMPA office.

IMPA Representative in the PHSRC, Dr. D.K.D. Mathew informed the IMPA that a complaint has been received by the PHSRC on establishing of foreign owned medical service facilities by foreign nationals in Sri Lanka. On account of this the IMPA has written to the Honourable Malik Samarawickrema (Minister of Development Strategies and Internal Trade) and Prof. Lalith Samarakoon (Director General of the National Economic Council). Prof. Lalith Samarakoon has informed the IMPA that this matter has been forwarded to the Registrar General for further action. Dr. Mathew also informed the IMPA that hospitals (Large and Small) have filed a case against the Ministry of Health prohibiting the price control on charges for indoor patients and all procedures.

Dr.Sudath Samaraweera, Deputy Director General (Acting) - Education, Training and Research Unit of the Ministry of Health has requested the IMPA to nominate a member to the Identification of Prioritized Health Sector Training Needs - 2019 programme, for which Dr. Nalin Ashubodha has been nominated by the IMPA council.

The IMPA representative in the Antibiotic Microbial Resistance - National Action Plan - Technical Advisory Committee (AMR-NAP-TAC) Dr. Iyanthi Abeyewickrema has attended several meetings with the Fleming Fund Grant allocated for Sri Lanka.

The IMPA has agreed to support the Primary Care Respiratory Group of Sri Lanka to conduct a Pulmonary Rehabilitation Programme of the Global RECHARGE Project for Early COPD in Sri Lanka.

Based on current evidence, the potential role of exposure to chemicals in the environment, including in the workplace, and the development and progression of type 2 diabetes is unclear. However, findings pertaining to a range of compounds suggest that greater efforts are needed to monitor environmental and biological markers to better understand diabetogenic effects of such exposures.[97] Of particular concern is chemical exposure during pregnancy and predisposition to gestational diabetes due to hypersusceptibility to chemical insults to the fetus during this life stage.[98] Similarly, cigarette smoking is acknowledged as the leading preventable cause of disease globally,[99,100] and, along with smokeless tobacco and betel quid chewing, is particularly problematic in south Asia.[101,102] A systematic review and metaanalysis by Pan and colleagues[103] confirmed that current (and passive) smokers have an increased risk of type 2 diabetes relative to nonsmokers. The investigators suggest that if the association between smoking and risk of diabetes is causal, considerable efforts in public health to reduce smoking would probably have implications for decreasing the global burden of diabetes.

As for the wider physical environment, workplace conditions, including shift work, disrupted sleep, and workrelated stress, might have important implications for the endocrine system.[104] Some research suggests that irregular sleep is equally as important as obesity and physical inactivity as a risk factor for diabetes,[105] as sleep has a crucial role in metabolic functioning. Social pressures, including long work hours, nocturnal light exposure, unusual timing of food intake, and irregular sleep all impact normal physiological functioning.[106]

Diet

In recent decades, the dietary patterns of south Asians have changed dramatically. The rising prevalence of obesity and type 2 diabetes have occurred alongside the nutrition transition, along with decreasing levels of habitual physical activity and energy expenditure.[24,107,108] For many south Asians, the traditional frugal diet low in fat and high in fibre has been replaced by a non-traditional diet with a greater overall carbohydrate consumption, lower in fibre and high in saturated fats, trans fats, sugar, and salt.[25,109-112] The increased consumption of nontraditional foods is associated with a greater availability of fast foods.[24]

Examples of dietary changes include the consumption of highly processed ricebased and wheatbased cereal diets in India, providing up to 60-70% of total energy,[113] commonly with a high intake of sugar,108 with a high glycaemic response.[114] A fondness for sugar and associated consumption of sweets is commonplace across south Asia.[108,112] Data from Sri Lanka suggest that the incidence of diabetes doubles when the consumption of refined carbohydrates, including added sugar, reaches 330 g per day (the mean daily intake across the region).[115] Considering the high consumption of free sugars in the typical south Asian diet,[108] all countries in the region would benefit from adoption of the WHO recommendation116 that energy from free sugars should not exceed 10% of total energy intake. The glycaemic response to cereals is reduced by dietary fibre; however, consumption of fibre is typically fairly low because of a fairly low consumption of fruit and vegetables, as shown in India.[117] In a large cohort study in an urban Indian population in Chennai (n=1843), total dietary carbohydrate and glycaemic load were positively associated with increased risk of type 2 diabetes. When white rice was replaced with brown rice, 24-h glucose and fasting insulin responses were reduced among over weight participants.[118] Wells and colleagues[119] contend that the increased diabetes risk might be associated with an inability to manage the metabolic load stemming from a combination of high levels of body fat, high glycaemic load, and inactive or sedentary behaviours.[51]

A major challenge throughout south Asia is the consumption of food items cooked in fats and oils. Common examples include desi ghee (clarified butter), coconut oil (a saturated fat), partially hydrogenated vegetable oils containing trans fats (eg, vanaspati, which also contains high saturated fat palm oil), and dairy sources (also saturated fat). A major issue relates to the common practice of repeated or prolonged heating and reheating of cooking oil and the potential conversion of healthier unsaturated fatty acids to trans fats.[107,120,121] Asian diets are also characterised by a high omega6 and low omega3 fatty acid ratio, which is implicated in the increased risk of cardiovascular disease and diabetes.[121] The use of oils high in monounsaturated fatty acids (olive oil, canola oil) and, similarly, pistachio and almond nut consumption have been associated with multiple metabolic benefits in south Asians with nonalcoholic fatty liver and other risk factors for cardio vascular disease.[122-124]

It is important to note the considerable heterogeneity with respect to south Asian diets, both between and within countries. A study[125] based on secondary analyses from

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the Indian Migration Study provides some interesting perspectives regarding the dietary patterns of Indian people. Researchers reported five regionally distributed dietary patterns, with ricebased patterns in the south and wheatbased patterns in the northwest. Typically, ricebased patterns were characterised by low energy consumption and dietary diversity and consumed more commonly by less educated adults in rural settings. By contrast, a rice-based pattern with high fruit consumption was typically consumed by more educated adults in urban settings. Despite the crosssectional nature of this study, moving from a rural to urban dietary pattern was characterised by an increase in total energy and salt consumption and a decrease in energy derived from rice in favour of energy from fats and oils, fruit, pulses, and legumes.

There are many similarities in south Asian food and cultural practices, but also considerable diversity within and between countries based on geographical location and religion. For example, many Indians (about 40%) are vegetarian.[25] Most Pakistanis (96%) are Muslims, who eat beef and lamb, but not pork.[126] Common staple foods in the region are rice and flour used to produce a large variety of flat breads and a wide range of vegetables, mainly legumes (dried peas and beans) and lentils. Based on affordability, nonvegetarian south Asians consume small quantities of meat including beef, goat, and lamb. Fish consumption is more common in non Hindu settings, particularly coastal areas of Sri Lanka and Bangladesh. Coconut milk and coconut oil are widely used in southern India and Sri Lanka.[127] Meat consumption tends to increase with urbanisation, population growth, and economic growth.[128] In Pakistan, a range of meat is consumed, mostly chicken because it is cheap, easy to process, and widely available.[126]

In many LMICs, including in south Asia, consumption f fruit and vegetables is much less than is recommended.[129] For example, in Sri Lanka, only an estimated 3·5% of people consume the recommended five portions of fruits and vegetables per day.[130,131] Similarly, the prevalence of inadequate fruit and vegetable intake in a study of Bangladeshi adults exceeded 80%.[132]

Habitual dietary patterns are a strong determinant of diabetes risk. Generally, increased carbohydrate intake and sugarsweetened beverage consumption are associated with poorer glycaemic control and increased risk of type 2 diabetes.[108,133] By contrast, increased fruit and vegetable intake per se or as part of a healthy diet pattern, or a Mediterraneanstyle dietary pattern, are associated with improved weight control, reduced HbA1c, and a decreased risk of future diabetes.[134,135] Although there are few dietary intervention trials in south Asia, data consistently support the improvement of carbohydrate and fat quality in the diet plus an increase in protein intake for improvement in blood glucose, serum insulin, lipids, inflammatory markers, and hepatic fat.[112]

Physical inactivity

The role of concomitant shifts in physical activity has received less attention than changes in nutrition.[24] Katzmarzyk and Mason[136] coined the term physical activity transition to refer to the specific contribution of physical activity patterns or trends within the epidemiological transition.

Physical inactivity commonly contributes to energy imbalance and increases in body mass (particularly body fat), systemic inflammation, and insulin resistance. Over time, these characteristics cluster and greatly increase the risk for type 2 diabetes, cardiovascular disease, and some cancers, leading to decreased life expectancy.[23] Evidence suggests that health benefits (ie, improved blood pressure, cholesterol, metabolic profile, etc), reduced risk for non-communicable diseases, and improved prognosis (ie, reduced mortality risk) associated with a more physically active lifestyle are consistent across highincome, middle-income, and lowincome settings.[137] Some emerging data suggest that south Asians might require greater levels of physical activity to gain similar cardiometabolic benefits to white populations.[138]

Insufficient physical activity is a leading risk factor for mortality in adults worldwide. In 2010, an estimated 23% of adults globally were insufficiently active (men 20%, women 27%).[139] Compared with people who engage in at least 150 min of moderateintensity physical activity per week, or equivalent, people who are insufficiently physically active have a 20–30% increased risk of all-cause mortality.[139] The best regional estimates (albeit based on selfreported physical activity) are provided by WHO data, with the prevalence of insufficient physical activity being lowest in the WHO SouthEast Asian Region (15%) compared with the regions of Africa (21%), Europe (24·5%), the Western Pacific (25%), the Eastern Mediterranean (31%), and the Americas (32%). Women are less active than men across all regions. There is also a countryincome gradient in the prevalence of insufficient physical activity for health, with highincome countries having more than double the prevalence of lowincome countries. This difference is seen in both men and women, with almost 50% of women in highincome countries being insufficiently physically active. In LMICs, higher levels of physical activity in both men and women can be explained by higher workrelated and transport-related physical activity compared with people in high-

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income countries. However, as these countries transition economically, levels of insufficient physical activity are likely to increase substantially.

Notably, global data for young people is troubling, with an estimated 81% of adolescents (aged 11–17 years) who attend school insufficiently physically active (completing less than 60 min of moderatetovigorous intensity physical activity per day).[139] Again, the WHO SouthEast Asian Region showed the lowest prevalence of insufficient physical activity in this age group (73·4%), compared with the Americas (81·2%), Europe (83·2%), the Western Pacific (85%), Africa (85·2%), and the Eastern Mediterranean (87·5%).[139]

Regional data for physical activity are also available through noncommunicable disease risk factor surveys, also based on selfreported data. In Nepal, only an estimated 2·3% of the adult population (2·9% of men and 1·7% of women) did not meet the WHO recommended levels of physical activity for health. For people older than 45 years, the prevalence increased to 4·8%.[140] 6·4% of Bhutanese adults aged 18–69 years did not meet the recommendations for physical activity for health, with a substantial difference between women (9·6%) and men (3·8%). In older women (40–69 years), 8·7% were insufficiently active, compared with 4·5% of older men.[141]

Low levels of physical activity, based on a crosssectional study, seem to be highly prevalent in Bangladeshi adults. The overall prevalence of low physical activity was estimated as 50·3% (urban 59·5%, rural 41·9%). In general, women were more inactive than men, 61·1% versus 39·3%;[142] however, nationally representative data are insufficient. In Pakistan, estimates of insufficient physical activity are even higher, with over 40% of adults (18–69 years) reporting less than 150 min per week of moderateintensity physical activity per week, or equivalent, with a very large difference between women (53·3%) and men (24·7%).[143]

Estimates in India are similar to those in Pakistan, with more than half of the adult population not meeting the WHO guidelines. However, several limitations must be highlighted regarding the data presented for each south Asian country. Selfreported physical activity data have acknowledged shortcomings, including recall bias and the potential for underreporting or overreporting.

Additionally, data from some settings are not nationally representative. Nevertheless, data suggest that levels of physical inactivity across the region are increasing, with women reporting consistently higher prevalence of insufficient physical activity compared with men. There is an urgent need to improve physical activity levels and thereby reduce the risk and burden of type 2 diabetes and other noncommunicable diseases.

A systematic review by Ranasinghe and colleagues[144] reported that a higher prevalence of physical inactivity in the south Asian context was consistent with being a skilled worker or professional, having a higher education level, and being female. There is also evidence to indicate challenges associated with health literacy related to healthy lifestyle characteristics in south Asians already diagnosed with type 2 diabetes. In a cohort of Sri Lankan adults, Ranasinghe and colleagues[145] reported a lack of knowledge regarding the value, type, and dose of physical activity that would be beneficial for their health and prognosis.

If levels increase over time, physical inactivity will have a greater role in the projected noncommunicable disease burden in the south Asian population.[146] On balance, there are great challenges associated with reversing the current and growing physical inactivity patterns across the entire prevention spectrum in south Asia, as addressed in detail in paper 3 in this Series.[6]

Conclusion and future directions

South Asia is facing an unprecedented health challenge associated with rapid economic transition, a massive exodus from traditional rural to more urban settings, and consequent changes in diet and physical activity patterns. A heightened predisposition to noncommunicable diseases is an unfortunate consequence of these changes, with central adiposity and increased prevalence of overweight and obesity leading to increased risk of type 2 diabetes. Features of the south Asian phenotype appear early in life, signalling the importance of maternal nutrition in pregnancy and postnatal growth. Such phenotypic alterations are most likely due to epigenetic changes that create an environment that is particularly vulnerable to obesogenic environments in adult life.

The epidemiology of obesity and type 2 diabetes in south Asia has particular implications for the clinical management of patients (the focus of paper 2 in the Series),[5] and public health and health systems (discussed in detail in paper 3).[6] Sustainable prevention and management of diabetes in the region requires the incorporation of strategies that address unhealthy dietary patterns and physical inactivity, as well as ensuring affordable access to good quality health care to those who need it. Importantly, these approaches will need to align with the context-including life stage, sex, and cultural and socioeconomic context-of patients and those at risk of developing type 2 diabetes in order to be successful.

MIGRAINE: OVERVIEW OF THE EVIDENCE, THE COMPLEMENTARY APPROACHES CONSIDERED

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Migraine comprises a complex constellation of symptoms, affecting the nervous system, the gastro-intestinal tract and the vascular system. Conventional treatments for migraine can be divided into two main areas: those use preventatively, and those employed in the management of an acute attack. If migraine attacks are intermittent, perhaps occurring only once a year, it seems pointless to suggest prolong preventative approaches that require daily adherence. It is obviously more cost effective and efficient for both patient and doctor to use appropriate analgesia, as and when the acute attacks occur. Patients suffering from such intermittent symptoms rarely see them as a major problem. Consequently, those wishing to seek more detailed advice about the migraine are likely to be suffering from recurrent attacks, sometimes on weekly or even a daily basis. The conventional prophylactic treatments have much to offer and are well tolerated in some patients, but others seek a moral natural treatment, often one that is within their control. Many patients wish to avoid the prolonged use of conventional medication because of the real or, in some cases, imagined, adverse reaction that may experience.

A number of complementary medical approaches have been suggested in the management of this condition. Some remain unproven and others are just ridicules. In this section we will concentrate on acupuncture, herbal medicines, manipulation, homeopathy, colour therapy psychological techniques and food exclusion.

Role of acupuncture in the treatment of migraine
Acupuncture has been used widely in the treatment of migraine, and some dramatic results have been claimed. We know much about the mechanism of action of acupuncture, and its migraine relieving effects probably acts either through gate control theory or by the release of natural opiates, or possibly both. While acupuncture is a particularly difficult therapy to assess, largely because it is not readily open to blind controlled trails, a number of attempts have been made to assess its validity in migraine.

Studies strongly suggest that a proper placebo-controlled study model can be used and is convincing a method of evaluating the effects of acupuncture in migraine. Review of acupuncture as a treatment for chronic pain provides a powerful argument which supports the value of acupuncture in both chronic pain and headache, although not all the studies reviewed come to positive conclusion about migraine. However, in my experience, clinical evidence indicates that approximately 60 – 70 % of patients attending for acupuncture experience both short-term and some sustained long-term benefit from this approach. Between 6 and 8 sessions are necessary, and the sustained benefit usually lasts for 12 to 18 months, whereupon treatments needs to be repeated. Most acupuncture point prescriptions for migraine contain suggested treatments that employ traditional Chinese approach to point selection. Such as mainly pain relief point and local area point. Migraine may also, however, be treated by simply using tender or trigger points in order to alleviate symptoms. At present, there is no definitive information which would suggest that any one type of acupuncture offers a more effective approach to this condition.

Role of manipulation in the treatment of migraine
Many osteopaths and chiropractors claim that manipulation can help migraine. Both tension and migraine-like headaches frequently occur in patients who have pathology in their cervical vertebrae. This may be caused by a cervical osteoarthritis, inflammatory arthropathies or a simple whiplash or other trauma to the cervical spine.

In the experience of most manipulators, spinal mobilization and adjustment can undoubtedly have an effect on both neck pain and headache. One of the first controlled trails of manipulation in migration was carried out by me. This study involved 200 volunteers and compared three different type of manipulation. Me and colleagues could not demonstrate that one particular manipulative approach was superior to any of the others, but the results indicated that manipulation intervention was of positive benefit to those suffering from migraine.

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Psychological techniques and migraine

It is widely recognized that stress is an important trigger for both tension and migraines headaches. For many years psychologists have been promoting the value of a range of stress-relieving and relaxation techniques in the management of recurrent headaches. Autogenic training, hypnosis, biofeedback, and a variety of different cognitive, relaxation and behavioral approaches have all been reported to be of value. Hypnosis and autogenic training are fundamentally relaxation techniques involving slightly different structured approaches. Cognitive and behavioral techniques involve a target approach to counseling which tries to identify situations which may result in headache or migraine. The individual then attempts to resolve the conflicts before the migraine occurs.

Controlled trails within the psychological medicine are almost impossible. The very nature of the therapy is to maximize an effect similar to that of the placebo (self-healing) by using long consultations, combined with relaxation techniques.

These are targeted at particularly stressful situations that may trigger a severe headache. If the crisis is dealt with in a different manner, then it could possibly be resolved without painful headache symptoms. The descriptive studies available, combined with patients reports of these techniques, suggest that psychological approach can be of value.

Tension headaches would appear to be particularly susceptible to this type of approach. They suggest that a striking improvement in tension headaches in approximately 60% of individuals can be achieved with the use of electromyography biofeedback techniques and colour therapy techniques. These results usually can be achieved in 4-8 biofeedback sessions, involving a form of progressive relaxation training. Mixed headaches (i.e. tension combined with migraine) appear to respond in a similar way.

Food exclusion and migraine

Every medical undergraduate knows that coffee, chocolate, chilies, Chinese food which includes mono sodium glutamate (MSG) and cheese can trigger migraine, but few practicing physicians are able to translate this into a particular therapeutic outcome. Those practicing environmental medicine or clinical ecology have long been aware that a food intolerance can be a trigger for migraine headaches. Among the foods that are frequently implicated, those containing tyramine are common.

Food intolerance does not mean that each time the patient eats the food, he or she experiences a severe headache, but rather that food, or perhaps some of its constituent products, slowly 'build up' in the body over a period of time. When an overdose has occurred, possible in combination with other factors such as excess alcohol or stress, a migraine is triggered.

The problem foods tend to be common. Such as milk, cheese, coffee, tea, orange juice, tomatoes and potatoes. Therefore, the patient should avoid these foods first. Reintroduction of the food, particularly during the first 6-8 weeks of the diet, will result in an acute and intense headache, but prolonged avoidance often means that the patient becomes at least particularly food-tolerant and may be able to put up with small amount of cheese or milk products without developing a headache.

Herbal medicine and migraine

Data on herbal medicine are difficult to obtain, but it is quite clear that, at least one instance, that of feverfew, good evidence is available to support its use in migraine. Following herbs are better result with my clinical experience; ginkgo biloba extract, peppermint, rosemary and nutrition supplements.

Conclusion

Migraine has a notoriously high rate of placebo response. Any individual who takes and interest in those suffering from migraine is likely to be able to demonstrate some therapeutic improvement by virtue of his or her apparent interest. However, herbal medicine acupuncture, biofeedback, manipulation, colour therapy, cupping therapy and food exclusion all demonstrate clearly that clinical result can be obtained by in the management of migraine by using therapies from within the field of complementary medicine. These approaches in particular a dietary approach may have enormous benefits.

One of the major difficulties that might face both the patient and doctor when considering migraine is that of what technique to use. According to the patients' conditions selection of the therapy depend on the experience of practitioners. We have presented so many that may be of value in these conditions. Unfortunately there is no good evidence available from comparative studies that allow us to select one technique in any particular situation.

It is important to take clear history; if it appears that the headaches are link to stress or a history of neck pain then the choice may be obvious. It is also important to take the patient's individual preference into account. Finally it is important to realize constraints of each individual approach. For instance treatment with feverfew etc. is preventive and will need to be continued on long term basis. However, the

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management with acupuncture should prove to be at least partially effective within half a dozen treatments so that intervention may suspended after the course of treatment.

THE FLEMING FUND

The Fleming Fund (FF) is a global initiative established by the British Government to support antimicrobial resistance (AMR) activities. 265 million Sterling Pounds constitute the total funds available for this purpose. There are 5 funding streams. 24 countries have entered into a partnership with the FF though the 'One Health' approach which is multisectoral and multidisciplinary in nature. FF will improve laboratory capacity for diagnosis and data surveillance nationally and though the Global Antimicrobial Surveillance System or GLASS.

The South Asia Regional Fund includes 6 countries and Sri Lanka is one country among them. Two funding streams that are important are Country and Regional Grants and Fellowship scheme.

The FF support the following:

- Lab infrastructure enhancement
- Human resource strengthening
- Surveillance system strengthening
- Building boundaries for AMR surveillance data use
- Rational use of antimicrobials

FF country grant for Sri Lanka:

1. To support selected areas of the National Strategic Plan on AMR developed by Sri Lanka
2. Budget of 2-4 million Sterling Pounds are available, and the duration of the project is 12-24 months
3. The grant will focus on building a surveillance system in Sri Lanka with an aim of putting the building blocks for sustainable development
4. Grant will be implemented by a 'third party' who will be selected through competitive bidding

Funds will not be given directly to the country but to an autonomous, independent agency e.g., WHO, other Un agencies or international NGOs etc. It will implement the activities and procurements will be made by an independent international procurement agency. However, all activities and procurements will be made in consultation with the government.

There is no requirement for counterpart funding from the government. But FF will appreciate government support such as duty exemption for procurement of equipment etc.
Data generated on AMR will be uploaded to the World Health Organization network (WHO NET).

Team for Scoping Mission: Dr. Tikiri Wijayathilaka -Regional One Health Specialist, The Team Leader Dr. Joanna McKenzie - One Health Specialist Dr Darunee Tuntasuvan - Regional One Health Specialist Mr. Possawat Jorakate- Laboratory Specialist Mr. Simon Dickinson - Regional Project Manager Dr. Vikas Aggarwal - Regional Coordinator

The scoping mission will discuss the number of labs etc to be supported during this mission.

Debriefing meeting with relevant technical staff on the proposed Objectives and Outputs for the Country Grant will be held on 22.10.18. Feedback to be taken from the group will be incorporated into final document. After the scoping mission, the FF will enter in to a formal agreement with the Ministry of Health.

PUBLISHED BY
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