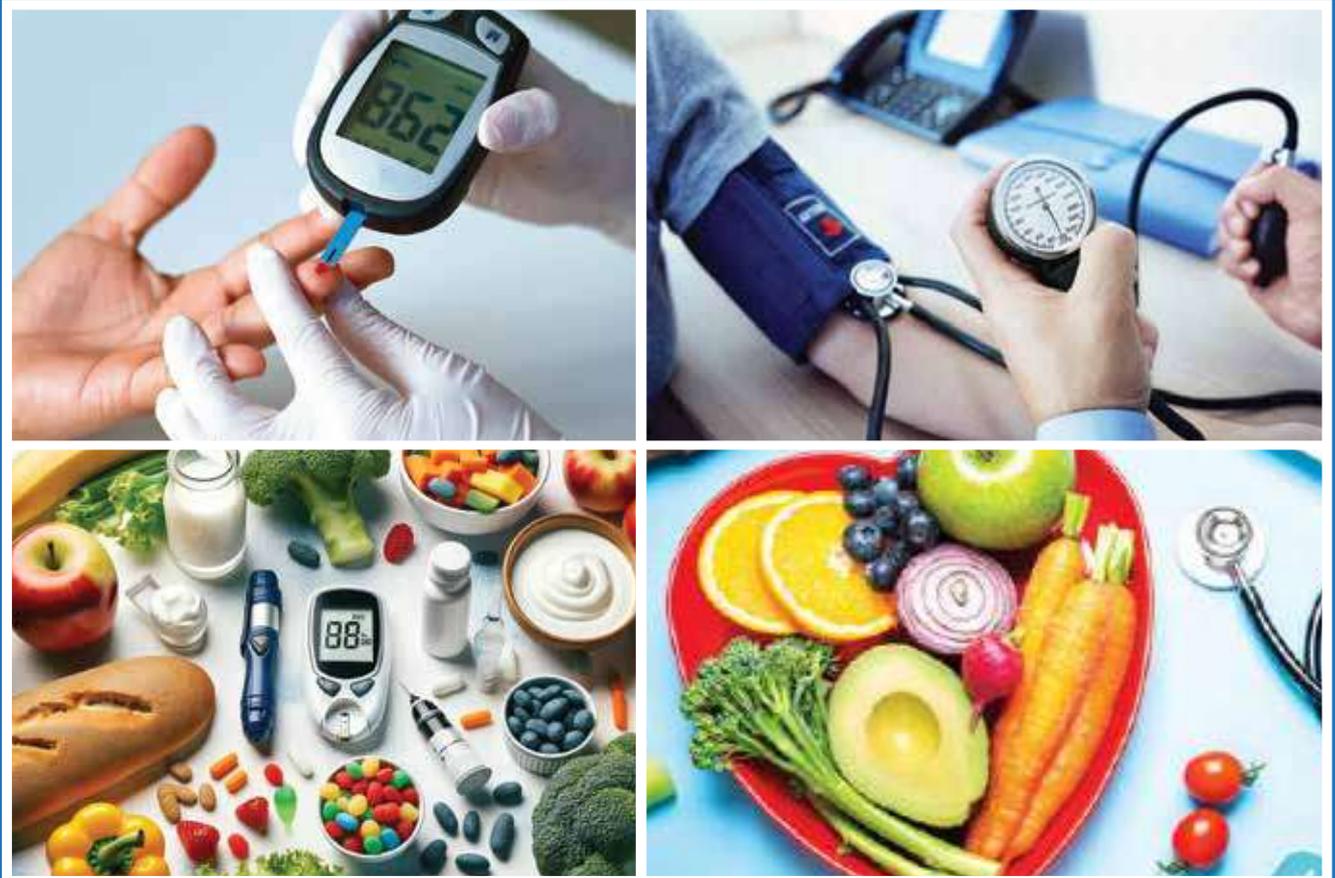


SLMA NEWS+

The Official E Magazine of The Sri Lanka Medical Association

WWW.SLMA.LK

JULY 2024 | VOLUME 07 | ISSUE 07 ISSN : 1800 - 4016 (PRINTED) 2550 - 2778 (ONLINE)



Hypertension and Diabetes

Managing poor blood pressure control - a stepwise approach

Diabetes Remission - a glimmer of hope on the horizon

Restoration of 12000-year-old skeletal remains excavated from Fa Hien Cave. Now exhibited at the National Museum, Colombo

Page 07-11

Page 13-16

Page 21-23



SCAN THIS CODE TO READ ONLINE



Sri Lanka Medical Association

Call for Applications Deshabandu Dr C G Uragoda Oration on the History of Medicine 2025

This oration was established as a lecture in the year 2012, the 127th anniversary year of the Sri Lanka Medical Association (SLMA), to commemorate establishment of the SLMA by a meeting attended by a group of doctors at the Colonial Medical Library in Colombo on 26 February 1887 to discuss the formation of the Ceylon Branch of the British Medical Association, which later became the Sri Lanka Medical Association.

The lecture was renamed the Dr. C. G. Uragoda Lecture on the History of Medicine in the year 2017 to honour the lasting contribution made by Dr. C. G. Uragoda to document, "The History of Medicine in Sri Lanka". In 2020, on the demise of Dr. C. G. Uragoda, the Council of the SLMA decided to elevate the lecture to that of an Oration and also add his national titular honour Deshabandu to the title of the Oration.

This oration is delivered on the 26th February of each year.

Applications are called for the Deshabandu Dr. C. G. Uragoda Oration to be delivered on 26 February 2025. Applicants should submit a short abstract of the proposed lecture (no more than 500 words, font size 12 in Times New Roman and margins set at 1 inch right round) and a brief curriculum vita (no more than 3 pages).

The orator should have been considerably associated with and contributed to the field of medicine in his/her chosen topic.

The SLMA will give presently to application in areas of medicine that have not been covered in previous orations. A list of past orations can be found on the SLMA website – <http://www.slma.lk>. Applicants should bear in mind that they must make themselves available to deliver the oration on 26 February 2025 at the SLMA Auditorium (if selected) as the oration is delivered to mark the founding of the SLMA.

Applications should be submitted to the Honorary Secretary, SLMA, on or before 31st October 2024.

SLMA News+ Editorial Committee 2024

Co-Editors

Dr Kumara Mendis
Dr Sumithra Tissera

Editorial Committee

Dr Sarath Gamini de Silva
Dr BJC Perera
Professor A Pathmeswaran
Professor Clifford Perera
Dr Chandana Attapattu

Magazine Design

Mr Kasun Muthukumarana

Printing & Publishing

S & S Printers (Pvt) Ltd
27/18, Jayantha Weerasekara
Mawatha
Colombo 10

Our Advertisers for July

- Prime Lands
- Velona Cuddles

CONTENT

PRESIDENT MESSAGE

04

ACTIVITIES IN BRIEF

05

FEATURE ARTICLES

Managing poor blood pressure control- a stepwise approach

07

Diabetes Remission - a glimmer of hope on the horizon

13

MISCELLANY

Restoration of 12000-year-old skeletal remains excavated from Fa Hien Cave. Now exhibited at the National Museum, Colombo

21

Statement regarding Cannabis by the SLMA Expert Committee on Tobacco, Alcohol and illicit drugs

25

SLMA NEWS+ is published by the Sri Lanka Medical Association (SLMA). The views expressed in it are not necessarily those of the SLMA. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Editor. Permission may be sought directly from the SLMA, Wijerama House, No. 6, Wijerama Mawatha, Colombo 07, via telephone +94 112 693 324 or E-mail: office@slma.lk

**I AM NO LONGER ACCEPTING THE THINGS
I CANNOT CHANGE. I AM CHANGING THE THINGS
I CANNOT ACCEPT.**

- Angela Davis



President's Message

Dear SLMA Members,

I am writing this message at a time where we are facing many challenges in our lives as doctors as well as citizens of this country in many spheres such as politics, threats to the lives of the medical professionals in carrying out our legal as well as moral duties, ethical media coverage, advertising/ promotion of products, and many more.

June was a sad month where we lost the lives of two young children and also as to how their deaths were portrayed by the media, especially the electronic media. At a time of distress to the grieving family, relatives and friends of the deceased, there were several media institutions which took the opportunity to sensationalize these untimely young deaths to improve their ratings with minimum or no consideration at all for the morality of their actions.

These depictions of a death where no one knew the cause were widely publicized and different perspectives given to the reason for the deaths, disregarding the decent ethics of media coverage that is fervently expected, and also the dignity that should have been given, not only to the living but also to the dead.

The law enforcement authorities and the police are also to be blamed as was seen in a second murder which happened days later where they had apparently released all footage of circumstances of the death to the media as was also seen in the first case. One must necessarily ask if it was the right decision to release them, especially perhaps at a price, making us think as to how low our society has gone down to sell these CCTV images to the highest bidder.

The Sri Lanka College of Paediatricians immediately released



a statement condemning the acts of the media and SLMA too followed suit. Everyone is now asking for the promotion and institution of a legal framework to protect the rights of the deceased. The SLMA this year will initiate a dialogue through the SLMA Inter-Collegiate Committee, with the press institute and other interested stake holders to develop such a code of conduct in an effort towards putting a stop to such unethical activities.

One is compelled to start thinking as to whether the whole country, not excluding the media, has actually gone down in values and ethics. In that context, there is a dire need to start teaching students from schools and even to those reading in higher education institutions on the dire need to safeguard the dignity, privacy and ethical values, that are interwoven components of respect.

Another issue that SLMA has taken up in July is safeguarding the lives and the rights of the medical professionals with the support of the trade unions and Ministry of Health when and where necessary, and especially when the lives of the doctors are threatened while

performing their official duties as laid down as a part of their job within the legal framework of the country. This is a serious concern where the medical personnel including doctors have been threatened with violence, death and verbal abuse within the hospital premises, private clinics, and now even at their own residences. This is not a new threat but one that has been there for quite a while.

We would urge any interested doctors to contact SLMA and support in any way that they are willing to do, to make this country a safe and happy place to work and live, not only for the health professionals but also to the entire populace of this country, and very specially to the children and young adults, who are the future of any country.

'Our lives begin to end the day we become silent about the things that matter'.

Martin Luther King

I do request all to get together and speak up for safeguarding not only the rights of the doctors but also of the other health professions as well as all citizens of Sri Lanka.

Dr Ananda Wijewickrama
MBBS, MD, MRCP(UK), FCCP
Consultant Physician
National Institute of Infectious Diseases
President - SLMA

Activities in Brief

(16th June 2024 – 15th July 2024)

Saturday Talks

Following SLMA Saturday Talks were held.

22nd June - 'Is my cholesterol level right?' by Dr Solitha Senanayake, Consultant Cardiologist & Lecturer, Faculty of Medical Sciences, University of Sri Jayawardenapura.

SRI LANKA MEDICAL ASSOCIATION
Saturday Talk Series

Is my cholesterol level right?

Dr Solitha Senanayake
(Acting) Consultant Cardiologist,
and Lecturer, Department of Pharmacology,
Faculty of Medical Sciences,
University of Sri Jayawardenapura.

22nd June, 2024
7PM Onwards

Meeting ID: 823 3855 6756
Passcode: 850594

To obtain previous Saturday Talk recordings email to it@slma.lk
www.slma.lk 94-112693324

6th July - 'Intracranial pressure: From basic principles to clinical practice' by Dr DPCK Ananda Lal, Consultant Neurosurgeon, Lady Ridgeway Hospital (LRH), Colombo.

SRI LANKA MEDICAL ASSOCIATION
Saturday Talk Series

Intracranial Pressure - from basic principles to clinical practice

Dr DPCK Ananda Lal
MBBS, MD, MRCS (Eng)
Consultant Neurosurgeon
Lady Ridgeway Hospital, Colombo

6th July, 2024
7PM Onwards

Meeting ID: 831 8551 5631
Passcode: 040690

To obtain previous Saturday Talk recordings email to it@slma.lk
www.slma.lk 94-112693324

Media Activities

Dr Ananda Wijewickrama, President, SLMA, Dr Ayesha Lokubalasureiya, Consultant Community Physician, Family Health Bureau and Dr Nayani Dharmakeerthi, Health & Nutrition Officer, UNICEF participated at a discussion on 'A Healthy Nutritious Diet for Children' on Derana 24 Hours, 'Big Focus', on **24th June**.



SLMA released a media statement condemning the unethical coverage in the electronic media of the deaths of two young school children and called for action to promote ethical media coverage of death on **8th July** (the letter can be accessed from <https://www.facebook.com/photo?fbid=793191732943769&set=a.566425232287088>).

Monthly Clinical Meetings

The second clinical meeting for June was held in collaboration with the College of General Practitioners of Sri Lanka on **18th June** on *'Beyond the clinical walls: A family physicians journey in healthcare'*.

The resource persons were Dr Marylou Delani Dharmakan, Family Physician & Lecturer, Faculty of Medical Sciences, University of Sri Jayawardenapura, Dr W Bihan de Silva, Family Physician & Visiting Lecturer, University of Kelaniya & Dr Shane Malitha Halpe, Registrar in Family Medicine.



Other symposia

A Symposium was organized by the SLMA Expert Committee on Communicable Diseases on *'Sri Lankan situation of HIV/AIDS'* on **5th July** as a hybrid event.

The resource persons and their lecture topics were as follows; Dr KAM Ariyaratne, Consultant Venereologist, NSACP on *'Current global and local situation of the HIV epidemic'*, Dr. Nilanka Perera, Senior Lecturer and Consultant Physician, Department of Medicine, University of Sri Jayawardenepura on *'Clinical presentation of HIV/AIDS'*, Dr. Jayanthi Elvitigala, Consultant Microbiologist, NSACP & Dr. Vigeetha Withanage, Consultant Virologist, NSACP on *'HIV laboratory diagnosis'*.



Managing poor blood pressure control- a stepwise approach

Emeritus Professor Mohamed Rifdy Mohideen

Consultant, Department of Medicine
Faculty of Medicine
Sabaragamuwa University of Sri Lanka

Introduction

High blood pressure is the most critical cardiovascular risk factor, directly contributing to a significant portion of global cardiovascular mortality and morbidity. The World Health Organization estimates that arterial hypertension affects approximately 1.28 billion people worldwide aged 30–79, with two-thirds of these individuals living in low-to-middle-income countries (1).

Despite the concerted efforts of physicians, the healthcare system, and patients, as well as the widespread availability of effective antihypertensive therapies, blood pressure control remains largely inadequate in many segments of the population. On average, adequate BP control is achieved in just 20% of men and 25% of women. In clinical trials, where treatment protocols are rigorously followed, control rates reach 80%, but real-life settings show poorer results.

The 2021 Sri Lanka NCD risk factor survey (STEPS) found that 34.8% of adults had elevated blood pressure, a nearly 25% increase in prevalence since the 2015 STEPS survey(2). Notably, over 54% of those with high blood pressure were unaware of their condition. Among those who knew, at least 20% were not on any medication, and only 40% had their blood pressure under control while on treatment.

Inadequate blood pressure control is not uncommon in general practice, medical clinics and even in private practice scenarios of physicians. This article describes a stepwise approach to investigate and manage such patients already undergoing treatment for hypertension.

1. Is the blood pressure above the target values?

Blood pressure targets have evolved. Initially set at <140/90 mmHg, recent guidelines from the ESC/ESH and the American College of Cardiology (ACC) and American Heart Association (AHA) recommend lower targets(3)(4). The latest National Guidelines of Sri Lanka of 2021 too recommends the stricter lower target and suggests a target range of 120-129 mmHg for those

under 65 and 130-139 mmHg for those 65 and over(5). The US guidelines recommend 130/80 mmHg for all adults, including those with comorbidities. However, blood pressure targets should be individualized based on comorbidities, medication side effects, patient tolerance, and preferences.

2. Was the blood pressure measured accurately?

Accurate blood pressure measurement is a critical first step. In busy clinics, some recommended steps may be overlooked such as using an appropriate-sized cuff, back and arm supported and adequate rest prior to the measurements. At least two recordings should be made at each encounter, with a third if there is a significant discrepancy. Measurements by a nurse can minimize the white coat effect. Suspect pseudo hypertension in elderly patients with high readings but no end-organ damage, and consider white coat hypertension if there is no target organ damage, often seen in women, older persons, and those with mild hypertension.

The management of hypertension has conventionally been based on the blood pressure recording in the hospital or clinic. However, this method can only provide a snapshot of blood pressure at a particular time and may not represent the overall picture. Blood pressure varies significantly over a 24-hour period and the use of ambulatory blood pressure can provide an accurate picture of the control of blood pressure. However, it is not practicable to perform 24-hour ambulatory measurements routinely. Availability and expert interpretation are also required.

Home blood pressure monitoring is a feasible alternative. Home blood pressure monitoring is becoming an increasingly important tool because it provides an accurate assessment of blood pressure in a familiar and relaxed environment, helping to mitigate the "white coat syndrome".

Measurements should be done with a validated device and patient educated on the steps to make accurate recordings and maintaining of written records for clinic visits. Self-monitoring can improve medication adherence and control without increasing healthcare resource utilization. The blood pressure goal for home recordings is about 5 mmHg lower than that for clinic determinations.

3. Are lifestyle measures being adequately followed?

Lifestyle factors significantly impact blood pressure control. A carefully elicited history with attention to the patient's habits may identify the reason for difficulty to control hypertension. The adverse effect of sodium and alcohol on hypertension is well known. Sedentary lifestyle, excess body weight and insufficient sleep can impact blood pressure control.

Encourage exercise, smoking cessation, weight loss, healthy eating, cut back on excess drinks and reduced sodium intake. If these interventions are optimized, expected blood pressure reductions vary between 5-20 mmHg, equivalent to the effect of one to two antihypertensive medications.

Regular physical activity such as walking is beneficial, with guidelines recommending at least 30 minutes of moderate-intensity aerobic exercise on most days and resistance exercises on 2-3 days per week. Combining exercise with pharmacotherapy results in a greater reduction in blood pressure compared to medication alone.

Reducing salt intake is a challenging dietary recommendation, as consuming more than the recommended one teaspoon (5 grams) per day raises blood pressure. Most dietary salt comes from processed foods or is added during cooking and at the table. Modest salt reduction has a significant impact, especially for those with hypertension. Implementing these dietary changes can be quite difficult. Patients should be encouraged to gradually decrease their salt intake and informed that adjusting to the taste of less salty foods may take some time. Lemon and lime juice and salt-free herbs can help alleviate blandness for those new to a low-sodium diet.

Potassium-enriched, sodium-reduced salt substitutes have recently been shown to lower blood pressure and reduce cardiovascular events and mortality. These substitutes can replace regular salt without compromising taste or altering cooking methods, though their use is limited due to lack of emphasis in guidelines and local availability issues.

Adopting a potassium-rich diet may be a more practical intervention. Fruits, vegetables, legumes, fat-free or low-fat dairy products, and fish are excellent natural sources of potassium. Higher intake of dietary fibre is associated with a significant reduction in systolic and diastolic blood pressure, independent of pharmacological interventions through the production of gut microbiota-derived short-chain fatty acids to lower blood pressure (6).

Although lifestyle changes are effective, they remain difficult to implement and to maintain long-term

because many people live in environments that are not conducive to achieving and then sustaining a healthy lifestyle. Patients are likely to be quite unaware of non-pharmacological alternatives that could help manage their high blood pressure, highlighting the need for improved communication and awareness of treatment options. Furthermore, for long-term lifestyle and dietary changes, healthcare professionals need specialized training in effective behaviour change techniques to help their patients adopt new habits.

4. Is there non-adherence to medications?

Nonadherence to medication occurs when there is a mismatch between the prescribed regimen and patient's actual intake. Non-adherence includes non-initiation, short persistence, and poor execution of treatment. Every effort should be made to understand the cause of non-adherence. This information serves three purposes: identifying high-risk patients for non-adherence, pinpointing potential barriers to adherence, and aiding the development of personalized interventions.

Some patients may consciously choose not to take the medication due to high cost or adverse effects while others may forget due to complex regimens or mental comorbidity. Furthermore, initial adherence does not guarantee continued compliance. Other factors include poor socio-economic condition, poor health literacy, lack of social support and health-care related scenarios. Patient factors such as cognitive impairment, depression, visual problems should be probed.

Good adherence improves blood pressure control and reduces cardiovascular risk. Ensure patients understand their medication instructions and involve them in shared decision-making to improve adherence. Simplifying regimens, using fixed combinations, and providing clear instructions can improve adherence. Single-pill combinations, when available at an affordable price, aim to reduce the pill burden and improve adherence.

It is crucial to emphasize the importance of continuing medication even when blood pressure values have returned to normal. Additionally, providing written instructions can enhance adherence.

5. Are the antihypertensive combinations appropriate?

There are more than 50 drugs across five major classes available for treating hypertension. Poor selection of antihypertensive therapies often leads to inadequate blood pressure control. Suboptimal treatment regimens occur when rational drug combinations are not used or when drugs are not given at the maximum tolerable doses. Current guidelines recommend starting

hypertension patients on a combination of two drugs, ideally in a single pill, to improve control.

Preferred combinations include thiazide diuretics or calcium channel blockers with either angiotensin-converting enzyme inhibitors (ACEIs) or angiotensin receptor blockers (ARBs), or beta-blockers with dihydropyridine calcium channel blockers. These combinations have been proven effective in several randomised controlled trials.

While dihydropyridine calcium channel blockers pair well with beta-blockers, non-dihydropyridine calcium channel blockers (verapamil and diltiazem) do not, due to the high risk of atrioventricular block and bradycardia. Combining ACEIs or ARBs with beta-blockers also shows poor blood pressure-lowering effects. However, third-generation beta-blockers like nebivolol produce significant additive effects. Although an ACEI or ARB combined with a diuretic is effective, there is an increased risk of developing diabetes with the combination of beta-blockers and diuretics.

6. Are there any substances used regularly raising blood pressure or interfering with the action of the medications?

Several drugs can interfere with antihypertensive medications. The biggest culprit is nonsteroidal anti-inflammatory drugs (NSAIDs.) At any dose level that controls pain, blood pressure is elevated. It interferes with many of the first-line antihypertensive agents except calcium channel blockers through volume expansion following the inhibition of vasodilatory and natriuretic prostaglandins. Other agents include decongestants, herbal medicines, steroids, antidepressants and human recombinant erythropoietin. Women on combined oral contraceptives may also experience raised blood pressure. Consider switching to alternative forms of contraception, such as progestin-only birth control or barrier methods, if appropriate. Blood pressure effects of these medications are typically reversible when the medication is stopped.

7. Are there any comorbid conditions affecting good control?

Comorbid conditions like obesity, excessive alcohol use, obstructive sleep apnoea, diabetes mellitus, and chronic renal disease complicate blood pressure control. These conditions increase cardiovascular risk and require additional medications, impacting overall control. Managing diabetes and renal disease effectively is crucial for optimal blood pressure control. Sleep apnoea management can improve blood pressure control, often requiring inter-disciplinary collaboration.

Patients who have gained weight are likely to have difficulty in maintaining control of blood pressure. Obesity is associated with a three-fold increased risk of hypertension compared to normal-weight individuals. Obesity raises blood pressure through inappropriate activation of the aldosterone mineralocorticoid receptor pathway and renal sympathetic nervous system. Numerous studies show that obesity reduces the likelihood of achieving blood pressure targets, even with more medications. Weight loss is a crucial strategy for improving blood pressure control in obese or overweight individuals. It is estimated that each kilogram of weight loss results in a 1 mmHg reduction in blood pressure, although long-term reductions are about half of those seen in short-term studies. Successful weight loss involves dietary changes, regular physical activity, motivational counselling, and, when other measures fail, the use of anti-obesity drugs or bariatric surgery.

8. Is there an overlooked secondary cause?

Secondary hypertension, should always be considered and excluded. Notably, endocrine disorders like primary aldosteronism (Conn syndrome), pheochromocytoma, renovascular disease, and rare genetic conditions can contribute to secondary hypertension. In particular, unrecognised and subclinical primary aldosteronism occurs across the spectrum of the hypertension phenotypes. Patients with these underlying conditions may not respond well to conventional antihypertensive medications.

High suspicion for secondary hypertension should arise when it occurs in young individuals or presents later in life. Additionally, markedly elevated blood pressure values or sudden increases despite prior good control warrant further investigation. Revisiting the patient's history and conducting a thorough physical examination may reveal clinical clues pointing to an underlying secondary cause. Initial screening with serum electrolytes, serum creatinine, and urinalysis is recommended before proceeding to more expensive and sophisticated tests. Referral to a specialized centre with the necessary resources and expertise may be needed for additional work-up. Identifying and treating the underlying cause can improve blood pressure control and potentially eliminate the need for long-term medication.

9. Does this patient have treatment-resistant hypertension?

If uncontrolled hypertension persists despite this therapeutic regimen, resistant hypertension should be considered. Resistant hypertension is diagnosed when blood pressure remains above 140/90 mmHg with a mean 24-hour ambulatory BP > 130/80 mmHg level persists despite adherence to three or more antihypertensive

medications including a diuretic. These drugs also need to be given at an optimal and maximum tolerated dose.

Resistant hypertension is more likely to occur as age advances and in patients with chronic kidney disease (CKD), obesity, and obstructive sleep apnoea and are at a higher risk of developing cardiovascular and renal complications.

Individuals with treatment-resistant hypertension often experience improper volume expansion, complicating their condition. Maximizing diuretic therapy or adding a low dose of mineralocorticoid receptor antagonist like spironolactone is recommended to optimize blood pressure control in these cases. The Prevention and Treatment of Hypertension with Algorithm-Based Therapy-2 (PATHWAY-2) study demonstrated that spironolactone is more effective than β -blockers and the α -blocker doxazosin (7). Spironolactone is administered once daily and can be started at a low dose of either 12.5 or 25 mg.

As the next step, suggest using a β -blocker as the fifth drug and an α 1-blocker or a peripheral vasodilator as the final option when target blood pressure values are not achieved. Ensure there are no potential contraindications or significant renal impairment before adding these medications.

The role of SGLT2 inhibitors in treatment-resistance hypertension is emerging, as evidenced by post hoc analyses of the EMPA-REG OUTCOME study and the CREDENCE study, which has shown significant blood pressure reduction. Agents such as empagliflozin and canagliflozin should be considered for treatment-resistant patients with comorbid diabetes mellitus, chronic renal disease, albuminuria, and heart failure(8, 9).

10. Does the patient need specialist referral?

Patients who do not achieve target blood pressure levels despite multiple medications and optimal measures may require specialist referral.

A specialist or cardiologist with expertise in hypertension can provide further testing and advanced treatments. One such treatment is renal nerve ablation, which has been explored over the past decade due to the role of high sympathetic tone in resistant hypertension. This minimally invasive procedure targets nerves near the kidneys that can become overactive and cause high blood pressure.

Renal denervation has experienced fluctuating popularity, initially growing before declining due to negative results from a large randomized trial. However, recent data from new trials and long-term follow-up studies of initial trials

have confirmed the procedure's benefits and safety, leading to its resurgence in clinical practice (10).

11. Conclusions

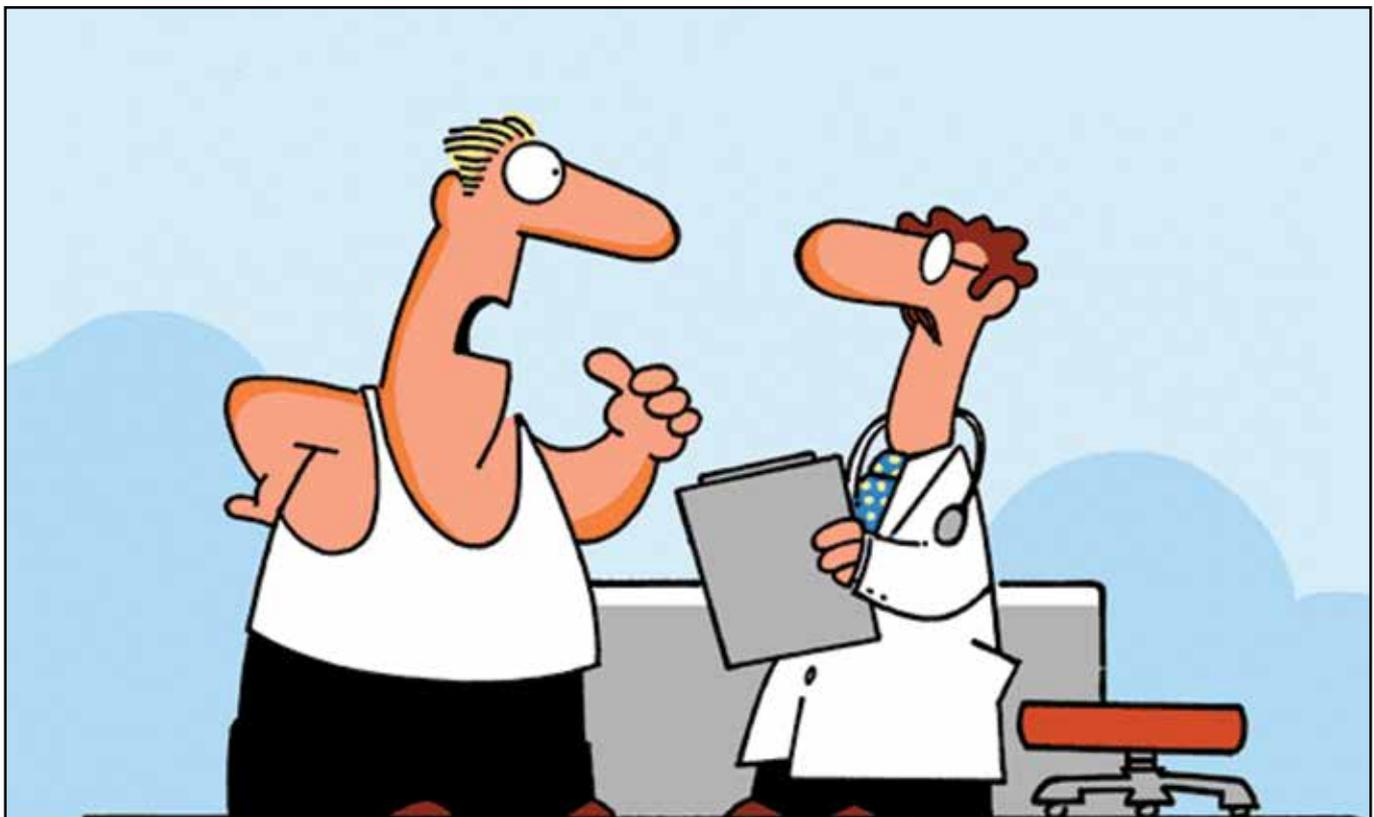
Managing difficult-to-control blood pressure is challenging. Improving blood pressure control requires a multifaceted approach, addressing lifestyle factors, accurate measurement, appropriate medication combinations, and patient adherence. By adopting a systematic and personalized approach, healthcare providers can enhance hypertension management and reduce the burden of cardiovascular disease. See Table 1.

Table 1

Summary of Action Steps
Step 1
Check if blood pressure level is above target
Step 2
Check if blood pressure measurement is accurate. Confirm if necessary with ABPM or Home BP recording
Step 3
Assess if lifestyle advice is being adequately followed Reinforce lifestyle measures
Step 4
Review and assess adherence to treatment
Step 5
Check if medication combinations are appropriate Optimise medication combination
Step 6
Stop any interfering substances and provide alternative
Step 7
Identify any comorbid conditions and optimise their management
Step 8
Exclude secondary causes of hypertension
Step 9
Consider treatment-resistant hypertension Optimize existing therapy and consider adding additional medications
Step 10
Refer to hypertension specialist for further management

References

1. World Health Organization. Hypertension 2021 [Internet]. Available from: <https://www.who.int/news-room/factsheets/detail/hypertension>. Accessed 18 June 2024.
2. Ministry of Health and Department of Census and Statistics. Non Communicable Diseases Risk Factor Survey (STEPS Survey) Sri Lanka. Sumathi Printers (Pvt) Ltd, Colombo; 2021. ISBN: 978-624-5719-78-5.
3. Mancia G, Kreutz R, Brunström M, Burnier M, Grassi G, Januszewicz A, et al. 2023 ESH guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Hypertension: endorsed by the International Society of Hypertension (ISH) and the European Renal Association (ERA). *J Hypertens*. 2023;41:1874–2071.
4. Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA guideline for the prevention, detection, evaluation, and management of high blood pressure in adults: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Hypertension*. 2018;71(6):e13-e115.
5. National Guideline for Management of Hypertension for Secondary and Tertiary Health Care Level [Internet]. ISBN: 978-624-5719-50-1. Available from: <http://www.ncd.health.gov.lk/>. Accessed 18 June 2024.
6. Jama HA, Snelson M, Schutte AE, Muir J, Marques FZ. Recommendations for the Use of Dietary Fiber to Improve Blood Pressure Control. *Hypertension*. 2024;81(7):1450-1459. doi:10.1161/HYPERTENSIONAHA.123.22575.
7. Williams B, MacDonald TM, Morant S, et al. Spironolactone versus placebo, bisoprolol, and doxazosin to determine the optimal treatment for drug-resistant hypertension (PATHWAY-2): a randomised, double-blind, crossover trial. *Lancet*. 2015;386:2059-68. doi:10.1016/S0140-6736(15)00257-3.
8. Zinman B, Wanner C, Lachin JM, et al. Empagliflozin, cardiovascular outcomes, and mortality in type 2 diabetes. *N Engl J Med*. 2015;373:2117-28. doi:10.1056/NEJMoa1504720.
9. Ye N, Jardine MJ, Oshima M, et al. Blood pressure effects of canagliflozin and clinical outcomes in type 2 diabetes and chronic kidney disease: insights from the CREDENCE trial. *Circulation*. 2021;143:1735-49. doi:10.1161/CIRCULATIONAHA.120.048740.
10. Wagener M, Dolan E, Arnous S, Galvin J, Murphy AW, Casserly I, et al. Renal denervation as a complementary treatment option for uncontrolled arterial hypertension: A situation assessment. *J Clin Med*. 2023;12:5634. <https://doi.org/10.3390/jcm12175634>



“I’ve always been a high achiever, always striving for bigger, faster, greater...and now suddenly I’m expected to settle for *lower* blood pressure and *less* cholesterol!?”

velona CUDDLES

Made with Love



Choose Non-Toxic: Embrace Chlorine-Free Care

As parents, we cherish every moment with our little ones, ensuring they get the very best.

Yet, many diaper brands use chlorine in their bleaching process to soften and improve absorbency. This, however, releases harmful dioxins like 1,4-Dioxin and ethylene oxide-known carcinogens that silently put your baby at risk.

At Velona Cuddles, we share your devotion & natural affection. Our diapers are completely chlorine-free, wrapping your baby in the purest, gentlest care.

Your baby's health and happiness are beyond compare; it's non negotiable!



HOTLINE : 0712360050



Diabetes Remission - a glimmer of hope on the horizon

Dr Nethrani Sameera Wijesekara Pathirana

MBBS, MD

Acting Consultant Endocrinologist

National Hospital of Sri Lanka

Dr Manilka Sumanatilleke

MBBS, MD(Col), MRCP (Lon), MRCP-Diabetes & Endocrinology (UK), FCCP(SL), FRCP (Edin), FACE (USA), FSLCE (SL).

Consultant Endocrinologist

National Hospital of Sri Lanka

Introduction

In 2021, the International Diabetes Federation reported that 1 in 10 adults worldwide, totalling 537 million, had diabetes mellitus. This number is expected to increase to 643 million by 2030 and 783 million by 2045. Over 75% of adults with diabetes live in low to middle-income countries(1). Globally, the rising prevalence of diabetes is closely linked to the obesity epidemic and associated insulin resistance. In countries like Sri Lanka, the risk is heightened by the South Asian ethnicity, which is an additional risk factor for diabetes. Recent Sri Lankan data revealed a diabetes prevalence of 15% to 23% in adults.(2,3)

Diabetes and its associated microvascular and macrovascular complications result in significant morbidity and mortality. Diabetes caused 6.7 million deaths in 2021, equivalent to one death every five seconds.(1). In addition to the disease burden on the patient and the family, the cost of managing diabetes and its complications is enormous.

Historically, prevention and optimal management of diabetes to avoid complications have been the pillars of diabetes care. While it is natural to think that a cure for diabetes would completely resolve the issue, currently there are no available options for a cure. However, we have the next best alternative: **diabetes remission**. Unlike a cure, remission does not eliminate the risk of recurrence, making ongoing follow-up essential.

The significance of initial glycaemic control has been underscored by renowned trials such as the UKPDS and its follow-up studies. These studies highlight that early intensive management of hyperglycaemia leads to long-term benefits, particularly in reducing diabetes complications, even if stringent control is not maintained

later in the disease course; a phenomenon known as the "legacy effect." Achieving diabetes remission can offer similar benefits, including cost savings from reduced medication usage and preventing diabetes-related complications.

The methods to achieve remission in type 2 diabetes mellitus (T2DM) depend on the underlying pathophysiology of the condition, which will be detailed below.

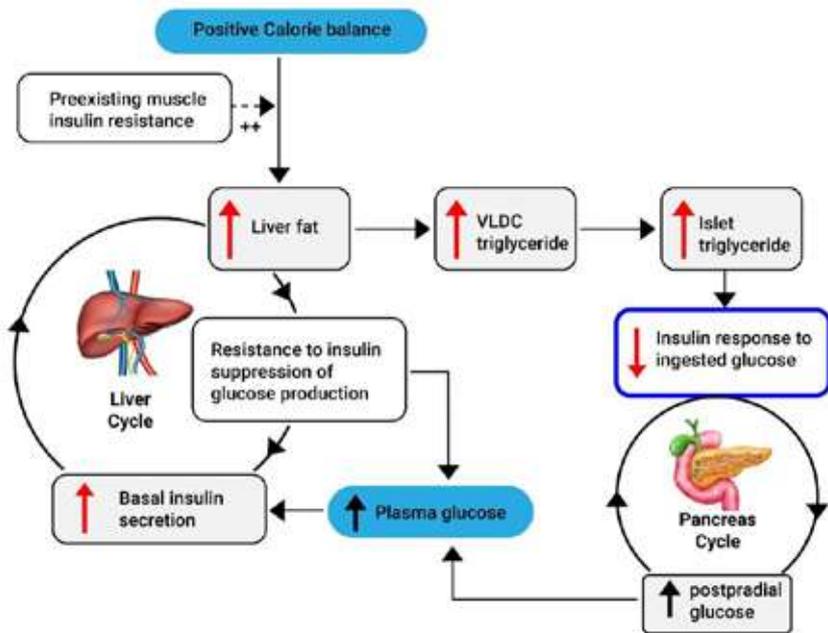
Pathophysiology of Type2 Diabetes Mellitus (T2DM) and its remission

The initial defect in the development of T2DM is insulin resistance (IR). While genetic factors contribute to the risk of T2DM, recent evidence indicates that a positive calorie balance, resulting from a mismatch between energy intake and expenditure, plays a significant role in the development of IR. The combination of an energy-dense food culture, lack of exercise and a sedentary lifestyle leads to substantial internal calorie excess, which is primarily handled by the liver.

In the liver, excess calories are converted to fatty acids and deposited, contributing to IR. As a result of IR, higher basal insulin levels are required to control hepatic gluconeogenesis, especially during fasting periods. This increased insulin demand promotes further fatty acid synthesis in the liver. These excess fatty acids are then secreted as very low-density lipoproteins (VLDL) and deposited in peripheral adipose tissue. When adipose tissue storage capacity is exceeded, fatty acids begin to accumulate in ectopic sites, such as the pancreas. This ectopic fat accumulation leads to pancreatic beta cell dysfunction, impairing the insulin response to postprandial glucose and resulting in persistent hyperglycaemia. This hyperglycaemia further exacerbates beta-cell dysfunction through glucotoxicity(4).

However, if this lipotoxicity and glucotoxicity are adequately addressed in the early stages, significant recovery of pancreatic beta cell function is possible, potentially reducing the need for hypoglycaemic agents for an extended period, giving rise to diabetes remission(4).

The following diagram illustrates how this excess calorie intake results in liver and pancreas lipotoxicity; "**the twin cycle hypothesis**"(4)



Look AHEAD study

In the respective analysis of this study, 5145 patients were randomized to receive either intensive lifestyle modification or conventional management. The intervention group followed a low-calorie diet (1200-1800 kilocalories per day) and engaged in physical exercise (175 minutes per week of moderate to intense activity). In this group, the prevalence of diabetes remission was 11.5% in the first year, but it reduced to 7.3% at the four-year follow-up. However, in the conventional group, the prevalence of diabetes remission was only 2%.⁽⁶⁾

Addressing this primary problem of calorie excess ameliorates both lipotoxicity and glucotoxicity, as proven in several clinical trials, leading to diabetes remission.

Definition of diabetes remission

The definition of diabetes remission has evolved frequently over the past few years since the concept was introduced. The latest definition coined by the American Diabetes Association in 2021 defines diabetes remission as HbA_{1c} <6.5% (48 mmol/mol) measured at least three months after cessation of glucose-lowering pharmacotherapy.⁽⁵⁾

Strategies used in achieving diabetes remission

Addressing the positive energy balance is the most important step in achieving diabetes remission, and three main strategies can help achieve this.

1. Lifestyle interventions

Among many trials, three main trials stand out, supporting intensive lifestyle changes, including calorie restriction and exercise for remission of diabetes,

-  Life style changes including dietary calorie restriction
-  Metabolic surgery
-  Pharmacotherapy

DiRECT study

This study, conducted with 306 patients with diabetes of less than 6 years duration, involved a very low-calorie diet of 825 - 853 kcal per day. The intervention included discontinuing hypoglycaemic and antihypertensive medications, total diet replacement with a formula diet for 12-20 weeks, and gradual reintroduction of regular food and structured support for weight loss maintenance. The control group received standard treatment.

After 12 months of follow-up, 46% of the intervention group were in remission, compared to 4% in the control group. Notably, remission rates increased to 86% among those in the intervention group who lost more than 15 kg. This was the first study which demonstrated that higher weight loss resulted in greater diabetes remission rates.⁽⁷⁾

DIADEM 1 study

This study also involved patients with recently diagnosed type 2 diabetes (duration <3 years). The intervention group received a low-calorie diet for 12 weeks, and the control group received standard care with 12-months of follow-up. At 12 months, 61% of the intervention group achieved diabetic remission compared to 12% of patients in the control group⁽⁸⁾

These findings prove that dietary changes and exercise, leading to a calorie deficit and weight loss, can effectively achieve diabetes remission that may last for years if the initial weight loss is maintained.

However, initial low-calorie diets in the form of formula diets might be cost-intensive and even prohibitive in the current Sri Lankan context. Despite this, it is important not to be discouraged from advising patients about the

potential benefits of calorie restriction, regular exercise, and achieving weight loss.

2. Metabolic surgery

When first introduced in 1990, bariatric surgery was primarily aimed at weight loss. However, over three decades later, it has been redefined as metabolic surgery, as it significantly improves patients' metabolic health. Metabolic surgery has proven highly effective in achieving and maintaining diabetes remission.

Its effectiveness extends beyond long-term weight loss, with substantial improvements in glycaemic control and remission rates of 60 to 80% in the short term. Remarkably, diabetes remission often occurs very early after surgery, within two to three days to two to three weeks, even before significant weight loss is evident mainly due to the changes in the orexigenic and anorexigenic hormone balance affecting the central control of metabolism from the hypothalamus. Changes in the gut microbiome also contributes to the clinical benefits.

The long-term maintenance of diabetic remission following metabolic surgery depends on several factors: the type of surgery performed (e.g., Roux-en-Y gastric bypass tends to have higher remission rates compared to other procedures), the patient's commitment to lifestyle changes, the presence of comorbidities, and the beta cell pancreatic reserve.

3. Pharmacotherapy

Achieving diabetes remission through hypoglycaemic medications remains one of the most controversial aspects of defining diabetes remission. To be classified as in diabetes remission, patients typically need to be off hypoglycaemic medications for at least three months.

Early studies of pharmacotherapy for diabetes remission focused on intensive insulin treatment. It involved patients with newly diagnosed diabetes who received continuous subcutaneous insulin infusions for two to three weeks. These studies showed that short-term intensive insulin therapy could improve beta cell function by reversing glucose toxicity and decreasing insulin resistance.

Recently, the range of diabetes medications has expanded to include several incretin-based therapies, such as GLP-1 receptor agonists (liraglutide, semaglutide) and a combination of GLP-1 receptor agonists with GIP receptor agonists (tirzepatide). These medications achieve glycaemic control and promote significant weight loss, sometimes comparable to that achieved with metabolic surgery. Tirzepatide trials in T2DM patients have demonstrated that it can achieve diabetes remission rates of 66% to 81% over 52 weeks, depending on the drug dose.(9).

Choosing the ideal patient and the strategy for diabetes remission

Ideal candidates for diabetes remission attempts should have the following characteristics.

1. Recent onset of T2DM (within 6 years)
2. Low baseline needs for hypoglycaemic agents
3. Initial low Hb A1c values (Mean 8.1%)

These characteristics indirectly indicate the possibility of adequate beta-cell reserve, which can be preserved when lipotoxicity and glucotoxicity are reversed.

Most importantly, achieving diabetes remission requires a highly motivated patient committed to putting in the necessary effort and following through with the treatment plan. Equally crucial is having an enthusiastic and supportive physician and a dedicated team to guide patients throughout their remission journeys.

Several factors must be considered when deciding on a treatment strategy for diabetes remission. Metabolic surgery has proven to be highly effective in achieving long-term sustained remission rates, especially for patients with other obesity-related comorbidities. These patients do tend to benefit more from surgical interventions. In contrast, young, motivated patients without other comorbidities may achieve remission through lifestyle modifications as the primary strategy. Adding pharmacotherapy to feasible lifestyle changes can benefit individuals who face challenges with intensive lifestyle measures. Cost is another critical factor in determining the treatment strategy. Shared decision-making among the patient, healthcare providers, and other involved parties is essential to achieving the best outcome.

Finally, it is extremely important to understand that achieving diabetes remission does not prevent the complications associated with diabetes. Even after remission is reached successfully, patients should be monitored for recurrence of diabetes and regularly checked for microvascular complications related to diabetes and enhanced risk for cardiovascular disease.

Conclusion

Diabetes remission results from reversing the baseline pathophysiological change of energy excess through intensive lifestyle changes, including dietary calorie restriction and exercise, metabolic surgery or pharmacotherapy. Choosing the ideal candidate and strategy for each patient requires expertise, shared decision-making, and good communication. Even though remission is achieved, those patients should be on a lifelong follow-up for recurrence as well as for diabetes-related complications.

Considering the current global epidemic of obesity and diabetes, diabetes remission is a great tool to tackle the associated morbidity, mortality and the huge cost of diabetes care for individuals and nations creating a positive socio-economic impact.

References

1. IDF Diabetes Atlas
2. Prasan Rannan-Eliya R, Wijemunige N, Perera P, Kapuge Y, Gunawardana N, Sigera C, et al. Prevalence of diabetes and pre-diabetes in Sri Lanka: a new global hotspot-estimates from the Sri Lanka Health and Ageing Survey 2018/2019 Prevalence of diabetes and pre-diabetes in Sri Lanka: a new global hotspot-estimates from the Sri. *BMJ Open Diab Res Care* [Internet]. 2023
3. STEPS Survey Sri Lanka 2021 I.
4. Taylor R. Type 2 diabetes and remission: practical management guided by pathophysiology. *J Intern Med* [Internet]. 2021 Jun;289(6):754–70.
5. Riddle MC, Cefalu WT, Evans PH, Gerstein HC, Nauck MA, Oh WK, et al. Consensus Report: Definition and Interpretation of Remission in Type 2 Diabetes. *Diabetes Care* [Internet]. 2021 Oct 1;44(10):2438–44.
6. Gregg EW, Chen H, Wagenknecht LE, Clark JM, Delahanty LM, Bantle J, et al. Association of an Intensive Lifestyle Intervention With Remission of Type 2 Diabetes. *JAMA* [Internet]. 2012 Dec 19;308(23):2489–96.
7. Lean ME, Leslie WS, Barnes AC, Brosnahan N, Thom G, McCombie L, et al. Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomised trial. *The Lancet* [Internet]. 2018 Feb 10;391(10120):541–51.
8. Taheri S, Zaghoul H, Chagoury O, Elhadad S, Ahmed SH, El Khatib N, et al. Effect of intensive lifestyle intervention on bodyweight and glycaemia in early type 2 diabetes (DIADEM-I): an open-label, parallel-group, randomised controlled trial. *Lancet Diabetes Endocrinol* [Internet]. 2020 Jun 1;8(6):477–89.
9. Del Prato S, Kahn SE, Pavo I, Weerakkody GJ, Yang Z, Doupis J, et al. Tirzepatide versus insulin glargine in type 2 diabetes and increased cardiovascular risk (SURPASS-4): a randomised, open-label, parallel-group, multicentre, phase 3 trial. *Lancet* [Internet]. 2021 Nov 13;398(10313):1811–24.



“Resistance training is just as important as cardio. Train yourself to resist chocolate, pastries, fried foods, beer, pizza....”



SRI LANKA MEDICAL ASSOCIATION
SERVING THE PROFESSION - SERVING THE NATION

137TH ANNIVERSARY INTERNATIONAL MEDICAL CONGRESS

16th, 17th & 18th of August
Hotel Galadari, Colombo

"Ensuring Health Equity during Challenging Times"

DAY ONE

09.00 AM - 09.30 AM 09.30 AM - 12.00 PM		Registration Inauguration & SLMA Oration Global divide in health and research; ethical and governance challenges for low and middle-income countries <i>Professor Athula Sumathipala</i>	
12.00 PM - 01.00 PM		Lunch	
01.00 PM - 01.30 PM		Keynote Address Food security challenges: navigating through crises <i>Professor Buddhi Marambe</i>	
01.30 PM - 02.15 PM		Professor NDW Lionel Memorial Oration Availability, affordability, and indicators of medicines use in Sri Lanka: status prior to the crisis and an analysis to address the challenges <i>Professor Priyadarshani Galappaththy</i>	
02.15 PM - 02.45 PM	Hall A Plenary 1 The scope of laser treatment in keeping the glasses away <i>Dr Charith Fonseka</i>	Hall B Plenary 2 Indiscriminate use of medicines <i>Professor Chandanie Wanigatunga</i>	Hall C VIP Room
02.45 PM - 03.45 PM	Symposium 1 Respiratory medicine Management of common respiratory emergencies: a guideline-based approach <i>Dr Sachini Seneviratne</i> A window into the lung: interpreting chest X-rays confidently <i>Dr Upul Pathirana</i> Vaping and E-cigarettes: unravelling the unknown <i>Dr Naranjan Dissanayake</i>	Symposium 2 Mitigating the influence of Commercial Determinants of Health (CDoH) World Health Organization (WHO), Country office in Sri Lanka Addressing Commercial Determinants of Health: WHO's Approach <i>Dr Monica Kosinska & Dr Suvajee Good</i> Navigating health challenges: turning evidence into policy <i>Dr Nisha Arunatilake</i> Significance of social determinants and social participation in tackling CDoH <i>Dr Diyanath Samarasinghe</i> Panel Discussion: <i>Dr Palitha Abeykoon (moderator)</i> <i>Dr S Sridharan</i> <i>Dr Susie Perera</i> <i>Professor Saraj Jayasinghe</i>	Poster presentations Guidance clinic for overseas placements of doctors
03.45 PM - 04.15 PM	Plenary 3 The ageing brain: understanding and preventing cognitive decline <i>Professor Varuni de Silva</i>	Symposium 3 Social protection for management of undernutrition World Food Programme (WFP), Country office in Sri Lanka Cost of the nutritious diet for a child with MAM <i>Dr Kalana Peiris</i> Efficacy trial for MAM children in Nuwara Eliya <i>Professor Guwani Liyanage</i> Access to fortified rice through social protection <i>Dr Arvind Bettigeri</i>	
04.15 PM - 04.45 PM	Plenary 4 Fast-tracking antimalarial drug discovery <i>Professor Niroshini Nirmalan</i>		
04.45 PM - 05.00 PM	Tea & End of day 1		

REGISTRATION FEE

MEMBER	
Consultants	Rs.10000
Non - Consultants	Rs.8000
NON -MEMBER	
Consultants	Rs.12000
Non - Consultants	Rs.10000
Undergraduate	Rs.5000
Day Registration	Rs.6000
Symposium Registration	Rs.2000
Foreign Delegates	USD.150



REGISTRATION
LINK





137TH ANNIVERSARY INTERNATIONAL MEDICAL CONGRESS

16th, 17th & 18th of August
Hotel Galadari, Colombo

“Ensuring Health Equity during Challenging Times”

DAY TWO

08.30 AM – 09.00 AM 09.00 AM – 09.45 AM		Registration Dr S Ramachandran Memorial Oration The FibroScan: the stethoscope of the Hepatologist <i>Professor Arjuna de Silva</i>			
09.45 AM – 10.15 AM	Hall A Plenary 5 Coronary artery disease assessment <i>Dr Wasantha Kapuwatta</i>	09.45 AM – 10.15 AM	Hall B Plenary 6 Critical care: don't forget the patient <i>Dr Dilshan Priyankara</i>	Hall C	VIP Room
10.15 AM – 10.30 AM		Tea / Photography exhibition			
10.30 AM – 11.30 AM	Symposium 4 Cardiology - Case based discussions Update on non-ST-elevation myocardial infarction (NSTEMI) & unstable angina <i>Dr Tanya Pereira</i> ST-elevation myocardial infarction (STEMI) management update <i>Dr Disna Amaratunga</i> Syncope: points and pearls <i>Dr Mevan Wijethunga</i>	10.30 AM – 11.30 AM	Panel discussion The health impact by media advertising of cosmetics, nutritional supplements, and food targeting children <i>The bitter side of “fair skin”</i> <i>Dr Nayani Madarasinghe</i> Sports nutrition supplements - do they really work? <i>Dr Hashan Amaratunga</i> Regulations pertaining to media advertising <i>Mr Asoka Dias</i> Panel discussion- Impact of advertising on the public <i>Moderator: Professor Asita De Silva</i> <i>Panelists: Dr Angela De Silva, Dr Nayani Madarasinghe, Dr Hashan Amaratunga, Mr Asoka Dias</i>	Poster presentations Guidance clinic for overseas placements of doctors	
11.30 AM – 12.30 PM		Debate <i>Are welfare policies a sustainable strategy for Sri Lanka?</i>			
12.30 PM – 01.30 PM		Lunch / Photography exhibition			
01.30 PM – 02.30 PM	Symposium 5 Intricacies of managing diabetes in the emergency department <i>Dr Niranjala Meegoda Widanage</i> In hospitalized surgical patients <i>Dr Uditha Bulugahapitiya</i> In family practice <i>Dr Manilka Sumanatilake</i>	01.30 PM – 02.30 PM	Symposium 6 Comprehensive Sexuality Education (CSE): Advocating and exploring strategies for influencing policy and creating public awareness <i>United Nations Population Fund (UNFPA)</i> <i>Country office in Sri Lanka</i>		
02.30 PM – 03.30 PM	Symposium 7 Barriers to good hypertension control - beyond medication Understanding the social hurdles in hypertension management <i>Professor Rifdy Mohideen</i> Optimising lifestyle measures in hypertension management - what is new? <i>Professor Udaya Ralapanawa</i> Improving adherence in Hypertension: a practical approach <i>Professor Thushara Matthis</i>	Free paper session			
03.30 PM – 04.00 PM	Interactive case-based discussion From coma to storm - Mastering thyroid disorders <i>Dr Supun Wijewardena</i>				
04.00 PM – 04.15 PM		Tea & End of day 2			

REGISTRATION FEE

MEMBER	
Consultants	Rs.10000
Non - Consultants	Rs.8000
NON - MEMBER	
Consultants	Rs.12000
Non - Consultants	Rs.10000
Undergraduate	Rs.5000
Day Registration	Rs.6000
Symposium Registration	Rs.2000
Foreign Delegates	USD. 150





SRI LANKA MEDICAL ASSOCIATION
SERVING THE PROFESSION – SERVING THE NATION

137TH ANNIVERSARY INTERNATIONAL MEDICAL CONGRESS

16th, 17th & 18th of August
Hotel Galadari, Colombo

“Ensuring Health Equity during Challenging Times”

DAY THREE

08.30 AM - 09.00 AM 09.00 AM - 09.45 AM		Registration Dr SC Paul Memorial Oration Colorectal cancer: important aspects of aetiology, diagnosis, staging and prognosis <i>Professor Ishan De Zoysa</i>			
09.45 AM - 10.15 AM		Hall A Plenary 7 Hippocrates's Touch to Algorithmic Insight: AI for medical professionals <i>Professor Pandula Siribaddana</i>	Hall B Symposium 8 Enabling a healthy food environment for school children and advocacy for implementation of the food marketing regulations <i>The United Nations Children's Fund (UNICEF) Country office in Sri Lanka</i> Global context on healthy food environment for school children and implemented regulations <i>Dr Abner Daniel</i> Healthy canteen promotion and supportive food regulations <i>Dr Bhanuja Wijayatilaka</i> Assessing nutrition environments for school age children <i>Professor Kathryn Backholer</i>	Hall C	VIP Room
10.15 AM - 10.30 AM		Tea / Photography exhibition			
10.30 AM - 11.00 AM		Plenary 8 Addressing the concerns of LGBTIQ persons and their families <i>Dr. Kapila Ranasinghe</i>	Free paper session		
11.00 AM - 12.00 PM		Symposium 9 A fresh look at vaccines Vaccines for people with diabetes <i>Dr Suneet Verma</i> Immunization of the elderly <i>Dr Kanthi Nanayakkara</i> Vaccine hesitancy: impact on herd immunity and disease outbreaks <i>Professor Jennifer Perera</i>	Free paper session		
12.00 PM - 01.00 PM		Lunch /Photography exhibition			
01.00 PM - 02.00 PM		Symposium 10 Medical Humanities: "Memento Mori" <i>Professor Mahesh Nirmalan</i> <i>Professor Dinithi Fernando</i> <i>Dr Santhushya Fernando</i>	Free paper session		
02.00 PM - 03.00 PM		Workshop Airway, ventilation and renal support for the critically ill patient Oxygen therapy and Continuous Positive Airway Pressure (CPAP) <i>Dr Dakshi Jayawickrama</i> Ventilators and ventilation <i>Dr Haritha Dharmakirthi</i> Continuous Renal Replacement Therapy (CRRT) <i>Dr Rasanee Wanigasuriya</i>	Symposium 11 Technology enhanced medical education <i>North Wales Medical School, Bangor University, UK</i> Anatomage: Integration of anatomy, histopathology, and radiology <i>Dr Mona Arafa & Dr Leah Jones</i> Integrated Structured Clinical Examination (ISCE) <i>Dr James Burston</i> Paper-free exams with Safe Exam-browsing <i>Dr Mahab Aljannat & Dr Victoria Gray</i>		
03.00 PM - 04.00 PM		Symposium 12 Infectious diseases: the new line of attack Nanopore sequencing for clinical applications in low resource settings <i>Dr Lakmal Jayasinghe</i> Influence of innate lymphocytes on dengue disease outcomes <i>Professor Ashley St. John</i>			
04.00PM - 04.15 PM		Closing ceremony & Tea			
07.00 PM - 09.00 PM		Doctors' Concert At Main Auditorium, UCFM Tower, Colombo			

Poster presentations

Guidance clinic for overseas placements of doctors

REGISTRATION FEE

MEMBER	
Consultants	Rs.10000
Non - Consultants	Rs.8000
NON - MEMBER	
Consultants	Rs.12000
Non - Consultants	Rs.10000
Undergraduate	Rs.5000
Day Registration	Rs.6000
Symposium Registration	Rs.2000
Foreign Delegates	USD. 150



YOU ARE INVITED TO THE

GRAND
Finale

DOCTORS' CRICKET LEAGUE 2024

DR. ANANDA WIJEWICKRAMA
PRESIDENT
SRI LANKA MEDICAL ASSOCIATION

AUGUST | 04

MATCHES START - 10.00 AM
CLOSING CEREMONY - 5.00 PM

**RANGIRI DAMBULLA
INTERNATIONAL CRICKET STADIUM**

ORGANIZING COMMITTEE DOCTORS CRICKET LEAGUE



Restoration of 12000-year-old skeletal remains excavated from Fa Hien Cave. Now exhibited at the National Museum, Colombo

Dr Sajith Edirisinghe

Senior Lecturer and Clinical Geneticist
Department of Anatomy
Faculty of Medical Sciences
University of Sri Jaywardenepura

Senior Professor Surangi Yasawardene

Senior Professor of Anatomy
Department of Anatomy
Faculty of Medical Sciences
University of Sri Jaywardenepura

Dr Oshan Wedage

Senior Lecturer in Archaeology
Department of History and Archaeology
University of Sri Jaywardenepura

The skeletal remains excavated from Fa Hien Cave in 2012, supposed to be one of the oldest skeletons found in South Asia (12000 years old – confirmed by carbon dating), were taken to University of Cambridge, UK for further studies. They were brought back to Sri Lanka after archaeological research examination by Dr. Jay Stock (Anthropologist, Senior Lecturer) Dr. Oshan Wedage, Senior Lecturer, Department of History and Archaeology, Faculty of Humanities and Social Sciences, University of Sri Jaywardenepura in response to the official request from the Sri Lankan government.

Site description, location

Fa-Hien cave, one of the largest caves in Sri Lanka, is situated in Yatagampitiya village near the Bulathsinhala Divisional Secretariat Division in Kalutara District in Western Province. It is approximately 130 meters above Mean Sea Level, with a shallow rock shelter with prehistoric habitation situated next to a large domed cave, which is one of the largest in Sri Lanka (Wedage et al., 2020, Wedage et al., 2019, Osborne et al., 2013).

Fa-Hien cave is a complex of interconnected rock shelters, eroded into an almost vertical southwest-facing cliff in the gneiss of the Highlands Complex(Wedage et al., 2019). The humus-stained cliff containing these rock shelters drops from a forested summit to the banks of a

small stream. The rockshelter complex is situated at the gradient break between the steep rock cliff and the lower gradient colluvium slope. Large boulders on the forested colluvial slopes below the rock shelter are evidence of a relatively recent rock fall and retreat of the steep gneiss cliff(Wijeyapala, 1997)

Overview of excavation

Archaeologically, the site was initially recorded in 1968 by the then Assistant Commissioner of the Department of Archaeology of the Government of Sri Lanka, Dr S.U. Deraniyagala, when it was being used as a Buddhist cave temple. It was subsequently preserved for future archaeological investigations once adequate resources become available. This did not materialise until 1986, when W.H. Wijeyapala, then Assistant Commissioner in charge of excavations, commenced a programme in which a series of rock shelter excavations were conducted(Wijeyapala, 1997, Deraniyagala, 1992)

The first excavation of the Fa-Hien Cave undertaken by W. H. Wijayapala was conducted between 1986 – 1988 in two main areas, labelled A and B, with the aim of understanding the cultural sequence of the cave. Shelter A, the larger of the two at the site, was first excavated to a depth of over 6 m. It yielded a consistent mass of what appears to be roof-fall flakes or decaying bed-rock throughout the profile, without any definitive trace of early human habitation (Figure 01).



Figure 01 - During the excavation of Shelter B

Shelter B, a smaller subsidiary shelter located approximately 20 m east of the main Shelter A chamber proved to be far more productive. Excavations conducted in 1986, revealed that there were 5 strata. The excavation was conducted stratigraphically down to bed-rock and yielded a cultural sequence from c. 38,000 to 4,422 years ago, including the oldest presence of anatomically modern humans in South Asia (Kourampas et al., 2009, Wijeyapala, 1997, Deraniyagala, 1992)

In 2009, 2010 and 2012, fieldwork on Shelter B was carried out by Oshan Wedage under the supervision of Dr S.U.Daraniyagala and Dr N.Perera. The aim was to enhance the stratigraphic and chronological resolution achieved by Wijeyapala in the 1980s, and to excavate the lower portions of the deposit to bedrock. The project also involved the collection of additional samples for the radiocarbon dating of the layers excavated by Wijeyapala (Wijeyapala, 1997).

The 2009 to 2012 excavations focused on the eastern section of the previously excavated area, as it contained deposits from all of the layers recognized during the 1986 excavations. Careful cleaning of the exposed 3 meters reveals a complex stratigraphy. Over 254 discrete contexts were recognized along the section in the 2009 to 2012 excavations. During this research excavation, a unique human skeleton was found in the soil layers that represent the early Holocene period (Figure 02). The skeleton was handed over to Dr. Jay Stock of the University of Cambridge in England for further studies.

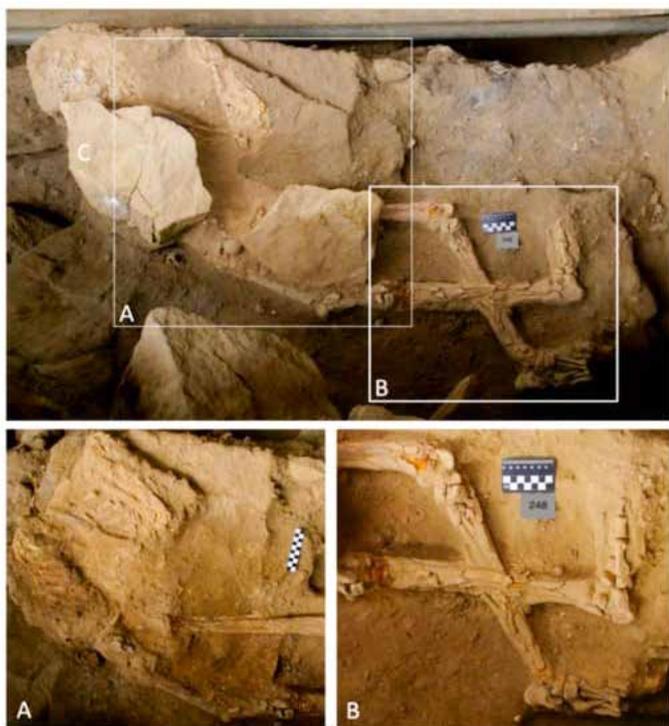


Figure 02 – The human remains as it is at the time of discovery at Fa Hien Cave in 2012 (Source - (Stock et al., 2022))

In 2012 the remains of the skeleton were returned to Sri Lanka and were received by Hon. Vidura Wickramanayaka, M.P., State Minister of National Heritage, Performing Arts and Rural Arts Promotion. At the Ministry of National Heritage, Performing Arts and Rural Arts Promotion the skeleton remains were handed over to Senior Professor Surangi Yasawardene, Chair Professor of Anatomy, and Dr. Sajith Edirisinghe, Senior Lecturer, Department of Anatomy, Faculty of Medical Sciences, University of Sri Jayewardenepura on 11th February 2022 for further conservation, exhibition and research under their direct supervision (Figure 03).



Figure 03 – handing over the skeletal remains to Faculty of Medical Sciences, University of Sri Jayewardenepura on 11th February 2022 at Ministry of National Heritage, Performing Arts and Rural Arts Promotion for further conservation, exhibition and research

Senior Professor Surangi Yasawardene, and Dr. Sajith Edirisinghe (Figure 04) with the help of Dr Krishan Dhammearatchi, pre intern medical officer, carefully studied and restored the full skeleton in the same arrangement as it was originally found at the Fa Hien Cave during excavation, in an air-tight glass cabinet with temperature and humidity control at the National Museum, Colombo. The exhibit is now open to the general public (Figure 05).



Figure 04 – Assembling the skeleton and National Museum, Colombo

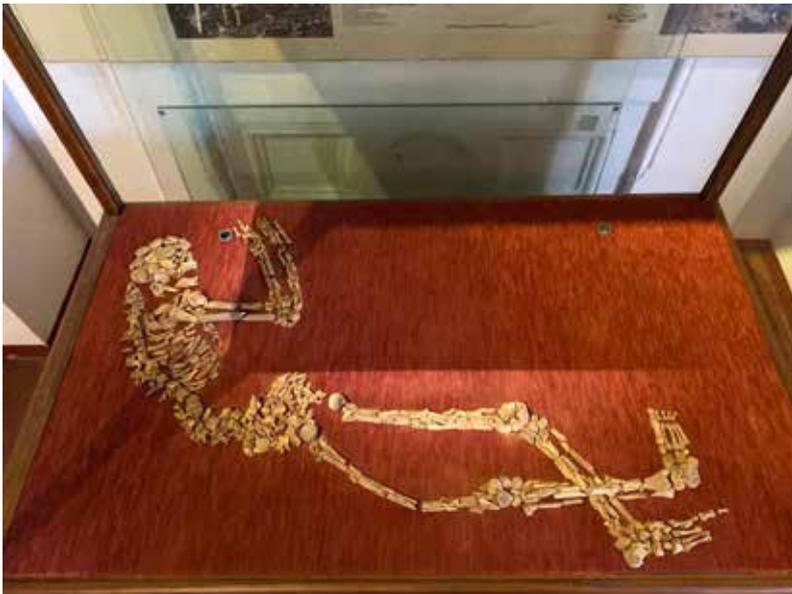


Figure 05 – Final assembled skeleton.

Reference

- DERANIYAGALA, S. U. 1992. The Prehistory of Sri Lanka.
- KOURAMPAS, N., SIMPSON, I. A., PERERA, N., DERANIYAGALA, S. U. & WIJEYAPALA, W. 2009. Rockshelter sedimentation in a dynamic tropical landscape: Late Pleistocene–Early Holocene archaeological deposits in Kitulgala Beli-lena, southwestern Sri Lanka. *Geoarchaeology: An International Journal*, 24, 677-714.
- OSBORNE, R. A. L., JAYASINGHA, P. & WELIANGE, W. S. AN INTRODUCTION TO SRI LANKAN GNEISS AND GRANITE CAVES. 16th INTERNATIONAL CONGRESS OF SPELEOLOGY, 2013. 280.
- STOCK, J., POMEROY, E., WEDAGE, O., EREGAMA, S., DERANIYAGALA, S., PERERA, N., ROBERTS, P., BOIVIN, N. & PETRAGLIA, M. 2022. Early Holocene Human Burials from Fa Hien-lena and Kuragala, Sri Lanka.
- WEDAGE, O., PICIN, A., BLINKHORN, J., DOUKA, K., DERANIYAGALA, S., KOURAMPAS, N., PERERA, N., SIMPSON, I., BOIVIN, N. & PETRAGLIA, M. 2019. Microliths in the South Asian rainforest~ 45-4 ka: New insights from Fa-Hien Lena Cave, Sri Lanka. *Plos One*, 14, e0222606.
- WEDAGE, O., ROBERTS, P., FAULKNER, P., CROWTHER, A., DOUKA, K., PICIN, A., BLINKHORN, J., DERANIYAGALA, S., BOIVIN, N. & PETRAGLIA, M. 2020. Late Pleistocene to early-Holocene rainforest foraging in Sri Lanka: Multidisciplinary analysis at Kitulgala Beli-lena. *Quaternary Science Reviews*, 231, 106200.
- WIJEYAPALA, W. 1997. New light on the prehistory of Sri Lanka in the context of recent investigations of cave sites. *Peradeniya: University of Peradeniya*.



Sri Lanka Medical Association

IMPORTANT NOTICE

Call for applications for post of SLMA President Elect 2025

The SLMA elects a President-Elect at its Annual General Meeting every year in December to take over as President thereafter.

Applications are hereby invited for the post of President-Elect for 2025 from SLMA Life Members of over five (5) years duration, proposed and seconded by SLMA Life Members.

Application forms may be obtained from the SLMA Office during working hours.

The applications should reach the Honorary Secretary, SLMA on or before 11th October 2024.

Dr Lucian Jayasuriya
Past Presidents' Representative to the SLMA Council
13th June 2024



SLMA DOCTORS' CONCERT 2024

A Music and Dance Extravaganza
with
Doctors "Performing" for Patients

**18th August 2024
6.30pm
Main Auditorium, UCFM Tower,
Faculty of Medicine, University of Colombo**

Tickets priced at LKR 1000/=

**All tickets sales in aid of the
"Feed the patient" project
at
National Cancer Institute,
Maharagama**

**Tickets can be booked at SLMA, No 6, Wijerama Mawatha,
Colombo 07
Contact 0112693324
Sponsorships are Most Welcome.**

Statement regarding Cannabis by the SLMA Expert Committee on Tobacco, Alcohol and illicit drugs

Dr Malsha de Silva

MBBS (Col), PG Dip (Psychiatry), MD (Psychiatry)

Consultant Psychiatrist

Dr Medhani Hewagama, MBBS, MD (Psychiatry)

MRCPsych, FRANZCP. Consultant Psychiatrist

Dr Buddhika Abeyrathna, MBBS, MD (Psychiatry),

Consultant Psychiatrist

Cannabis is a substance of abuse that is derived from a plant. It contains a group of compounds called cannabinoids that affect the brain function which can produce immediate effects such as intoxication and unpleasant experiences such as hearing and thinking things which aren't real. Cannabis use may cause delayed effects such as deterioration of memory, attention and concentration.

The Sri Lanka Medical Association recognizes the following implications of cannabis use based on scientific research.

- Cannabis use in youth is harmful to their developing brain leading to poor attention, memory and overall intelligence with an overall reduction of intelligence among teens. This results in lower educational achievements.
- In young people, it can lead to increased rates of school absence and drop out as well as suicide attempts.
- Use of cannabis increases the risk of developing severe mental illnesses such as schizophrenia and depression.
- Cannabis use worsens the symptoms and functioning of those who already have mental illnesses.
- Cannabis use increases the risk of later use of other drugs of abuse such as cocaine, methamphetamine and heroin. This is why it is called a "gateway drug"
- Cannabis use in pregnancy affects the brain development in the foetus. Therefore, cannabis use in women of reproductive age group can have an intergenerational negative impact.
- There is no clear scientific evidence to suggest that cannabis is beneficial for the treatment of any psychiatric disorder.
- Recent research shows a higher risk of respiratory problems, heart attacks and strokes in cannabis users than those who don't use it.
- Cannabis use can interfere with the ability to coordinate physical movements which will increase the risk of accidents and injuries particularly when operating machinery or driving.
- Cultivation, possession, distribution or use of cannabis is illegal in Sri Lanka and will lead to penalties such as fines, probation and imprisonment. Its use will also result in disciplinary action in academic institutions or workplaces.
- The medicinal market for cannabis in the whole world is so small and already saturated and it is very unlikely to yield any financial gains by cultivating it for that purpose in Sri Lanka.
- It is important to understand the direct and indirect promotion of cannabis based on completely non-scientific and false information.

The Sri Lanka Medical Association strongly advises the general public that the legalization of cannabis would lead to the de-stigmatisation and normalization of its use among people especially youth, leading to increased levels of cannabis use in the population.

Health services in Sri Lanka would struggle to cope with the added burden of the many adverse health outcomes that will result from this increased use.

Acknowledgement - Sri Lanka College of Psychiatrists



Sri Lanka Medical Association Annual Child Art Creation 2024



When I grow up: What I'll be

**Let's draw and send without delay
Sky's the limit for our paintings today**

For ages from Pre-school to Grade 10
(Each grade is recognized as a category)

Colouring Medium: any medium

Paper Size: A4 Paper

Submissions should include:

1. Full name
2. Age
3. Grade
4. School
5. Home address
6. Parent name & contact number

Drawings need to be certified by Principal or
Class Teacher of the child.

The drawing should not be copied from the
internet or any other source.

One child can submit up to a maximum of 2
drawings.

All drawings need to be sent **ONLY** by post or hand
delivered to

**Sri Lanka Medical Association
No. 6, Wijerama Road, Colombo 07.**

Deadline: 30th September 2024

For more information please con-
tact SLMA office at
011-2693 324





A WORLD OF UNRESTRAINED INDULGENCE

Prepare to be whisked away into a realm where indulgence reigns supreme, and every moment is an opulent celebration of life's finest luxuries.

0702 777 777



COLOMBO EIGHT

ULTRA LUXURY
SPACIOUS
Residences
THE ONE COLLECTION

3 BED
2000 SQFT
SKY VILLAS

PRIME
RESIDENCIES

www.primeresidencies.lk



WWW.SLMA.LK
"WIJERAMA HOUSE",
NO. 6, WIJERAMA MAWATHA,
COLOMBO 07,
+94 11 269 3324,
office@slma.lk



The Official Newsletter of the Sri Lanka Medical Association

To:

.....

.....

.....

.....

If undelivered please return to;
Sri Lanka Medical Association (SLMA),
No. 6, Wijerama Mawatha, Colombo 07

Registered at the Department of Posts Under No. DOP/NEWS/62/2024