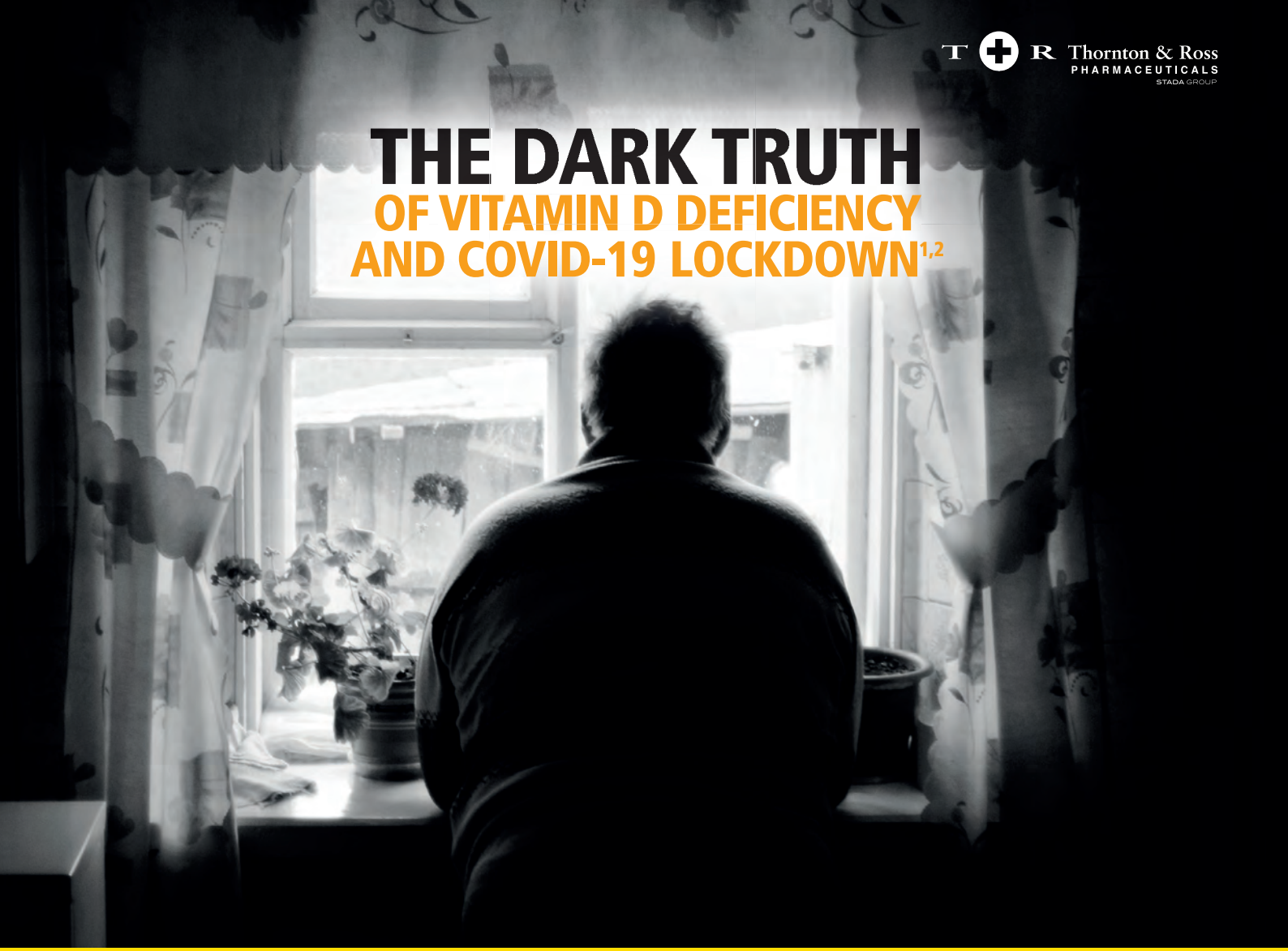
bida JOURNAL

BRITISH INTERNATIONAL DOCTORS' ASSOCIATION

THE JOURNAL OF **THE BRITISH INTERNATIONAL DOCTORS' ASSOCIATION**
Issue No.3, Volume 27 September 2021 www.bidaonline.co.uk

Inside:

Thornton & Ross PHARMACEUTICALS STADA GROUP



THE DARK TRUTH
OF VITAMIN D DEFICIENCY AND COVID-19 LOCKDOWN[1,2]

Don't **STAY IN THE DARK** on the importance of prescribing **Fultium®-D_3** for your at-risk patients[3]

Fultium®-D_3
Colecalciferol

THE UK'S NO.1 LICENSED VITAMIN D BRAND[4] FOR THE TREATMENT OF VITAMIN D DEFICIENCY

Fultium-D_3 800 IU, 3,200 IU & 20,000 IU Capsules Abbreviated Prescribing Information. Please refer to the appropriate Summary of Product Characteristics (SmPC) before prescribing Fultium-D_3. Use care when prescribing in pregnancy, as high doses of colecalciferol may affect the fetus. **Fultium-D_3 capsules:** Each Fultium-D_3 800 IU capsule contains colecalciferol 800 IU equivalent to 20 micrograms vitamin D_3. Each Fultium-D_3 3,200 IU capsule contains colecalciferol 3,200 IU equivalent to 80 micrograms vitamin D_3. Each Fultium-D_3 20,000 IU capsule contains colecalciferol 20,000 IU equivalent to 500 micrograms vitamin D_3. **Indication:** Fultium-D_3 800 & 20,000 IU capsules. Prevention and treatment of vitamin D deficiency. As an adjunct to specific therapy for osteoporosis in patients with vitamin D deficiency or at risk of vitamin D insufficiency. Fultium-D_3 3,200 IU capsules only. Treatment of vitamin D deficiency. **Dosage and administration:** Adults and the elderly Treatment of Vitamin D deficiency (serum levels <25nmol/l (<10ng/ml)). Depending on the severity of the disease and the patient's response to treatment: 1-4 Fultium-D_3 800 IU capsules daily for up to 12 weeks or 1 Fultium-D_3 3,200 IU capsule daily for up to 12 weeks or 2 Fultium-D_3 20,000 IU capsules per week for 7 weeks. Prevention of vitamin D deficiency 1-2 Fultium-D_3 800 IU capsules (800-1600 IU) daily or 1 Fultium-D_3 20,000 IU capsule per month. Long term maintenance therapy following deficiency treatment or vitamin D insufficiency (serum levels 25-50nmol/l (10-20 ng/ml). 1-2 Fultium-D_3 800 IU capsules daily. Children over 12 years. Depending on the severity of the disease and the patient's response to treatment: 1 Fultium-D_3 800 IU capsule daily (for prevention/treatment), or 1 Fultium-D_3 3,200 IU capsule daily for up to 12 weeks (treatment), or 1 Fultium-D_3 20,000 IU every 6 weeks (prevention), or 1 Fultium-D_3 20,000 IU every 2 weeks to 6 weeks (treatment). Should only be given under medical supervision. **Not recommended for use in children under 12 years.** For oral use. Swallow capsules whole with water. **Contraindications:** Hypersensitivity to vitamin D or any of the excipients in the product; hypervitaminosis D; nephrolithiasis; diseases or conditions resulting in hypercalcaemia and/or hypercalciuria; severe renal impairment. **Warnings and Precautions:** Use with caution in patients with impaired renal function or sarcoidosis and monitor the effect on calcium and phosphate levels. In patients with severe renal insufficiency, vitamin D in the form of colecalciferol is not metabolised normally and other forms of vitamin D should be used. In cases of long-term daily doses exceeding 1,000 IU, monitor serum calcium levels. Use caution in patients receiving treatment for cardiovascular disease. Consider vitamin D supplementation from other sources. **Interactions:** Concomitant treatment with phenytoin, barbiturates and glucocorticoids can decrease the effect of vitamin D. Effects of digitalis and other cardiac glycosides may be accentuated. Absorption of vitamin D may be reduced by ion exchange resins and laxatives. **Pregnancy and lactation:** Use only under medical supervision. Studies have shown safe use up to 4,000 IU daily but reproductive toxicity has been seen in animal studies. The 20,000 IU dose should not be used during pregnancy. Vitamin D is excreted in breast milk, when prescribing additional vitamin D to a breast-fed child consider the dose of any additional vitamin D given to the mother. **Undesirable effects:** Allergic reactions are possible. Uncommon adverse reactions include hypercalcaemia and hypercalciuria. Rare adverse reactions include: pruritus rash and urticaria. **Overdose:** Refer to SmPC. **Legal Category:** POM. **Pack size:** Fultium-D_3 800 IU capsules x30 – NHS Price £3.60. Fultium-D_3 800 IU capsules x90 – NHS Price £8.85. Fultium-D_3 3,200 IU capsules x30 – NHS Price £13.32. Fultium-D_3 3,200 IU capsules x90 – NHS Price £39.96. Fultium-D_3 20,000 capsules x15 – NHS Price £17.04. Fultium-D_3 20,000 capsules x30 – NHS Price £29.00. **MA Number:** 40861/0002 [Fultium-D_3 800 IU capsules]. 40861/0003 [Fultium-D_3 3,200 IU capsules]. 40861/0004 [Fultium-D_3 20,000 IU capsules]. **MA Holder:** Internis Pharmaceuticals Ltd. Linthwaite Laboratories, Linthwaite, Huddersfield, West Yorkshire HD7 5QH, UK. *Full Prescribing Information is available from Internis Pharmaceuticals Ltd.* **Date of preparation**: August 2020. *unique ID no.* FUL-543.

Fultium-D_3 Drops Abbreviated Prescribing Information. Please refer to the Summary of Product Characteristics (SmPC) before prescribing Fultium-D_3 Drops. Use care when prescribing in pregnancy, as high doses of colecalciferol may affect the fetus. **Fultium-D_3 Drops:** 1ml of oral solution contains 2740 IU (68.5mcg per ml) colecalciferol; 3 drops contains 200 IU colecalciferol. **Indications:** Prevention and treatment of vitamin D deficiency in adults and children, and as an adjunct to specific therapy for osteoporosis in patients with vitamin D deficiency or at risk of vitamin D insufficiency. **Dosage and administration:** For oral use. Can be taken directly or mixed with a small amount of food. *Adults.* Treatment of deficiency: 12-60 drops (800-4000 IU) daily; During pregnancy and breast-feeding: 6-60 drops (400-4000 IU) daily; Osteoporosis adjunctive therapy: 12 drops (800 IU) daily. Maintenance or prevention of deficiency: 12-24 drops (800-1600 IU) daily; During pregnancy and breast-feeding: 6-30 drops (400-2000 IU) daily. *Children.* Treatment of deficiency: 0-2 years: 6-15 drops (400-1000 IU) daily; 2-11 years: 6-30 drops (400-2000 IU) daily; 12-18 years: 6-60 drops (400-4000 IU) daily. Maintenance or prevention of deficiency: 0-2 years: 3-15 drops (200-1000 IU) daily; 2-11 years: 6-15 drops (400-1000 IU) daily; 12-18 years: 6-24 drops (400-1600 IU) daily. **Contraindications:** Hypersensitivity to vitamin D or any of the excipients; hypervitaminosis D; nephrolithiasis; diseases or conditions resulting in hypercalcaemia and/or hypercalciuria; severe renal impairment. **Warnings and Precautions:** Use caution in patients with impaired renal function or sarcoidosis. Monitor effect on calcium and phosphate levels in these patients. Consider risk of soft tissue calcification. Use other forms of vitamin D in cases of severe renal insufficiency. Consider the need for calcium supplementation in individual patients. Where calcium supplementation is necessary, close medical supervision is required. Use caution in patients receiving treatment for cardiovascular disease. Make allowances for vitamin D supplementation from other sources. Monitor to prevent hypercalcaemia. **Interactions:** Concomitant phenytoin, barbiturates and glucocorticoids can decrease the effect of vitamin D. Ion exchange resins, laxatives, actinomycin and imidazole may also reduce the effect of vitamin D. Oral calcium and vitamin D potentiates the effect of digitalis and other cardiac glycosides. **Pregnancy and lactation:** Limited clinical data in pregnancy. Animal studies have shown reproductive toxicity. RDI in pregnancy is 400 IU. Pregnant women who are vitamin D deficient may need a higher dose. Pregnant women should follow the advice of their GP, as their requirements may vary depending on disease severity and response to treatment. Vitamin D and metabolites are excreted in breast milk. Overdose in nursing infants has not been observed, however, when prescribing additional vitamin D to a breast-fed child, consider the maternal dose of any additional vitamin D. **Undesirable effects:** Hypercalcaemia and hypercalciuria. Refer to the SmPC for the full list of side effects. **Legal Category:** POM. **Pack size:** Fultium-D_3 Drops, 1 x 25ml – NHS Price £10.70. **MA Number:** 40861/0005. **MA Holder:** Internis Pharmaceuticals Ltd. Linthwaite Laboratories, Linthwaite, Huddersfield, West Yorkshire HD7 5QH, UK. *Full Prescribing Information available.* **Date of preparation**: July 2020. *unique ID no.* FUL-542.

Adverse events should be reported. Reporting forms and information can be found at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store. **Adverse events should also be reported to 01484 848164.**

References: 1. Hyppönen E, Power C. *Am J Clin Nutr* 2007; **85**: 860-868. https://nutrition.bmj.com/content/bmjnph/early/2020/05/13/bmjnph-2020-000089.full.pdf. 2. Lanham-New SA. *et al.* Vitamin D and SARS-CoV-2 virus/COVID-19 disease. BMJ Nutrition, Prevention & Health 2020;0. doi:10.1136/bmjnph-2020-000089. 3. NICE. Vitamin D: increasing supplement use among at-risk groups. Public health guidance 56. NICE, 2014. Updated August 2017. Available at: www.nice.org.uk/guidance/PH56. 4. IQVIA Data (52 weeks RxA and HPA) November 2019.

FUL-555a Date of preparation: October 2020

Editorial

Mr Amit Sinha FRCS (Tr&Orth) Consultant Orthopaedic Surgeon Media & Communication Lead, BIDA Editor, BIDA Journal.

Are we prepared for Long Covid?

England celebrated "Freedom day" on the 19th July coming out of the shackles of covid restrictions. Over the next few weeks other devolved nations have relaxed their regulations as well. Sadly the number of new cases affected by the Delta-variant has started to rise again, 36,000 cases reported on 19th August. The clinically vulnerable, the elderly and some with poor response to the vaccine, those who have not yet been vaccinated and children remain at risk. With the persistent number of new cases, the biggest concern is the inevitable risk of additional number of Long Covid sufferers. The ripples of the pandemic will affect thousands of individuals, some for several years. Is the NHS prepared for this? The government has put in resources to support this condition but sadly they may not be sufficient to cope with the increased numbers. Dr Ashish Chaudhry, a GP who has been battling with Long Covid for more than a year and his colleagues give a candid account of the sufferings one goes through and an in-depth account of this intriguing condition.

Research is still on going about Long Covid but what is completely unknown is what may control, reduce or calm its effects. A joint project by the All-India Institute of Ayurveda (AIIA), New Delhi and the London School of Hygiene and Tropical Medicine (LSHTM) has been commissioned to analyse the effects of the herb 'Ashwagandha', on people suffering from Long Covid. It will be a year-long study and will be conducted on 2,000 people in Leicester, Birmingham, and London. The World Health Organisation is also a knowledge partner to the study.

Articles

We have another thought-provoking article from Ajit Sinha on "Whistle-blowers". With his considerable experience in human resources, he presents scenarios from various parts of the world where Whistleblowers have faced in their struggle to uncover the truth in the midst of reper-cussions and retaliation from their organisations. We are pleased to know that the protection of Whistleblowers is now part of an international law.

Dr Gladston and colleagues present an excellent article on the subject of "Pericarditis". Drs Goswami and Upadhyay have a very informative paper on "Premenstrual syndrome", a spectrum of disorders relating to hormonal fluctuations in a normal menstrual cycle.

BIDA's Oncology Conference has been hugely successful drawing in esteemed speakers from three corners of the world. It was pleasing to see participation of medical students and trainees as well. The First prize podium and poster presenters are included in this edition.

We bring in the report of the National Forum of Well being and Health. It is heartening to know that the "Health melas" are achieving their purpose to promote awareness of health related issues amongst health care workers and the community.

Climate Change

At the recent G7 summit, world leaders made a commitment to protect our planet by supporting a 'green revolution' that creates jobs, cuts emissions and seeks to limit the rise in global temperatures to 1.5 degrees. Meaningful action on climate change impacts almost every area of society from how we heat our homes, travel, and produce goods and services, to how deliver our health services. It is a global issue that impacts on every one of us now and our future generations.

Climate change of course also directly affects health and health services. It impacts on access to clean air, clean water, and sufficient supplies of food. Climate change will also result in increasing incidence of respiratory disease, malaria, malnutrition and a whole range of other public health issues. As Health care workers, we have a responsibility to do all that we can to spread the message and take appropriate measures ourselves to cut emissions.

Integrated Care System (ICS)

In less than a year, 42 ICSs will be fully formed legislative bodies tasked with helping NHS and social care sectors across England to 'connect, communicate and collaborate'. Each will comprise an ICS NHS body, responsible for the day-to-day running, and an ICS health and care partnership, bringing the NHS, local government and the third sector together to improve health and wellbeing outcomes for their population.

Perhaps we would not know the full impact of this integration of care for at least 10 years or more. As an organisation, it would be prudent for BIDA members to ensure they have a strong collective voice and can seize the opportunity to shape care for their populations by engaging with integrated care systems (ICSs).

For the future, BIDA aims to promote the concept of National Care Service that would bring together hospital care, primacy care, community and social care, funded by general taxation and administered by Local Care Authorities who would respond to the needs of the local community. BIDA has joined a campaign with other organisations to fight for this concept.

"The two most powerful warriors are patience and time". *Leo Tolstoy.*
Isn't this what the pandemic has taught us?

A. Sinha Editor, BIDA Journal.

bida JOURNAL

Instructions for Authors

BIDA Journal is a peer-reviewed journal. We welcome original articles from physicians, surgeons and medical students from any part of the world. These include review articles, scientific articles, case reports, audits and letters to the Editor. Please visit BIDA's website for instructions.

Contents:

Editorial Address:

The Editor, BIDA Journal,
ODA House,
316A Buxton Rd.
Great Moor,
Stockport,
Cheshire SK2 7DD

E-mail:
amitani2000@yahoo.co.in
bida@btconnect.com

Website:
www.bidaonline.co.uk

bida National President's report

Dr Birendra Sinha National President, BIDA

Dear Members,

I would like to start off my final report as BIDA National President in expressing what a pleasure it has been to serve you all in this role since 2017. I am delighted to be handing over this role to the National Chairman Dr Chandra Kanneganti, who I am sure will do an excellent job.

In my time as President, I have been lucky to have the backing and support of an excellent Executive Committee, I would like to thank all the members of the Executive Committee. I would also like to thank our immediate past President Dr Bachi Sarker whom I could always turn to for advice.

As you all know we have managed to hold the BIDA National Elections this year, which were delayed last year due to the Covid-19 pandemic. We will be seeing some new faces on the Executive Committee, and I would like to wholeheartedly welcome them and wish them all the best in their new roles.

I would also like to thank Dr Surendra Kumar, Chairman of Election Commissioners, and Dr S Sarkar, Dr S Ahuja and esteemed laypersons Dr A Mishra and Mrs Saleemi for making the whole election process run fairly and smoothly.

As you all know we had a very successful fundraising appeal which raised money to supply oxygen concentrators and other vital emergency medical equipment to India, along with telephone consultations with medical personnel in India dealing with the Covid-19 crisis as and when needed. I would like to thank everybody who was involved in this initiative, especially Dr Ashish Dhawan who took the lead.

BIDA has successfully raised concerns over the number of deaths of BAME medics and healthcare workers with the help of other related organisations. This has become especially important as Covid has affected the BAME community disproportionately.

Although we have not been able to have our usual face to face meetings during this unprecedented time, we have had some excellent virtual meetings such as The BIDA National Conference led by Dr Sanjay Arya, Obesity Conference led by Professor Siba Senapati and the Oncology Conference led by Mr Selvasekar. I would like to thank them all and their organising committees for keeping up the BIDA momentum during this time.

Myself as well as the whole of BIDA are thankful to Mr Amit Sinha who is doing a fantastic job on the BIDA Journal as well as writing our newsletters and the official letters, which have been sent on behalf of BIDA to all the relevant medical and governmental bodies.

Dr Vinod Gadiyar has also been organising monthly educational webinars to which all BIDA members have been invited, again which have proved to be very successful and well attended.

Dr Raghu Hegde has managed to arrange the Presidents Cup Cricket Tournament this year (despite the British weather) during these difficult Covid times, I would like to thank him and all the Divisions who have participated.

I would like to take this opportunity to wish the BIDA Executive Committee a bright future in looking after our BIDA members for a long time to come.

Finally, let's all hope that soon we can get back to resuming normal face to face activities again but, in the meantime, please all stay safe and take care of yourselves.

Dr Birendra Sinha
National President, BIDA

BIDA's newly-elected Council:

Name	Position applied for	National Officers
Dr Chandra Kanneganti	President	Elected unopposed
Dr Sanjiv Sinha	Vice President	Elected unopposed
Dr Ashish Dhawan	Chairman	Elected unopposed
Dr Alka Trivedi	Vice Chairman	Elected unopposed
Dr Vinod Gadiyar	Treasurer	Elected unopposed
	Deputy Treasurer	No valid nominations received
Mr Amit Sinha	General Secretary	Elected unopposed
Mr S Bhattacharyya	Deputy Secretary	Elected unopposed
Dr Suresh Chandran	ARM Chairman	Elected unopposed
Dr Leena Saxena	ARM Vice Chairman	Elected unopposed
Dr Sanjay Arya	Chairman, Hospital Doctors Forum	Elected unopposed
Dr Preeti Shukla	Chairman, GP Forum	Elected unopposed
	Chair, Public Health & Community Health Forum	No valid nominations received
Dr Anita Sharma	Chairman Women's Doctors Forum	Elected unopposed
Dr Gurkaran Singh	Chairman Doctors in Training Forum	Elected unopposed
Name	**Position applied for**	**Executive Committee Member**
Dr Shikha Pitalia	Executive Committee Member	Elected unopposed
Dr Sanjeev Saxena	Executive Committee Member	Elected unopposed
Dr JJ Raj Muthiah	Executive Committee Member	Elected unopposed
Dr Uday Kanitkar	Executive Committee Member	Elected unopposed
Dr Ravi Sharma	Executive Committee Member	Elected unopposed
Dr Rakesh Sharma	Executive Committee Member	Elected unopposed
Dr Ravish Katira	Executive Committee Member	Elected unopposed
Dr Anita Sanghi	Executive Committee Member	Elected unopposed

bida National Chairman's report

Dr Chandra Kanneganti National Chairman, BIDA

Dear Colleagues,

With the continuing successful UK COVID vaccine program we hope, as a country, we recover from the pandemic. BIDA's Officers and Executive Committee continue to work hard in highlighting and championing many issues.

We have conducted a very successful BIDA Oncology Conference attended by number of BIDA members, and my special thanks to the organisers who worked hard on this very important conference in BIDA's Calendar.

We continue to campaign on important issues that affect our members. We met with the GMC and discussed the recent high profile case of justice for Dr. Omer Karim.

We continue to offer support and mentorship to a number of doctors facing problems at their work place. We have joined a campaign with BAPIO, whose survey of an acute hospital in the Midlands showed bullying and harassment faced by many doctors working in that Trust. BIDA has been proactive and has been continuously quoted in a number of national and local press organisations championing doctors' issues, particularly related to the COVID pandemic.

We are still planning to hold our Annual AGM in October 2021. Due to the COVID-19 Delta variant still causing a rise in the number of cases, we are planning to organise the AGM virtually. The details will be posted soon.

Our delayed national elections have now been successfully completed, and I am excited to see a number of new colleagues who have joined our executive team to support our organisation. I would like to thank the election commissioners for conducting the national elections smoothly.

I wish to welcome Amanda Pritchard, who has now taken the very important role of Chief Executive of NHS, and we have written to her on behalf of BIDA.

Let's continue our hard work in support of others in the NHS.

Dr Chandra Kanneganti
National Chairman, BIDA

bida National Treasurer's report

Dr Pranab K Sarkar National Treasurer, BIDA

Dear Members,

Now I have served BIDA as the national Treasurer for the past 4 years. Due to the changes in my personal circumstances, I have decided not to continue the second term in the office.

Accordingly, I will be stepping down from the post of National Treasurer of BIDA after the forth coming AGM/ARM 2021 in Stoke.

Constitutionally, the National Treasurer of BIDA is 'the principal finance officer of the Association and shall deal with the funds of the Association as the By-Laws and Regulations may prescribe'. As the Treasurer of the Association for the past 4 years, I have tried my level best to manage BIDA members' money as efficiently as possible with focus on reducing our 'non-essential' expenses. The motto of my financial management strategy has been to 'Cut your coat according to your cloth' in response to a steady declining income from membership subscriptions of BIDA over the past 10 years.

It has become quite obvious that, in addition to all the recent high profile international, national educational and other activities, more needed to be done to attract new members which in the process would help to increase our income as income from membership subscriptions is the cornerstone of BIDA's financial stability. In this respect, we must acknowledge the generous sponsorships we have received from the BMA, GMC, Thornton & Ross Pharmaceutical Company, Quilters Finances, The American University of Antigua and Bolton Travel Services. On behalf of BIDA, I would like to thank these organisations for supporting BIDA's educational activities and Journal publications.

As this is my last report as the National Treasurer, I would like to take this opportunity to thank my predecessor Dr Birendra Sinha (current President) and the members of the NEC for their kind support over the past few years. I would also like to gratefully acknowledge the support and cooperation I have received from Alison, at our central office staff and our Accountant Mr Zahur over the past few years, without which it would been impossible for me to do my job.

I will be handing over my responsibility to my successor, Dr Vinod Gadiyar, at the forthcoming AGM /ARM in October 2021 and I am extremely confident that he will prove to be a very efficient and competent treasurer for BIDA.

Dr Pranab K Sarkar
National Treasurer, BIDA

Long Covid

Learning over the last year from those with lingering symptoms

Dr Ashish Chaudhry General Practitioner and Medical Educator. Member of the UK Doctors Long COVID Group.
with contributions from
Clare Rayner Occupational Health Physician **Asad Khan** Respiratory Physician
Dr Harsha Master GP Lead, Hertfordshire Community NHS Trust COVID-19 Rehabilitation Service

Introduction

The emergence of a novel Coronavirus from Wuhan China in late 2019, has had dramatic and unimaginable effects on health, economy, education and the way we interact. The rapid spread of this virus had led to the World Health Organisation declaring a pandemic in March 2020. The number of people affected thus far has been beyond comprehension with current estimates at 191 million reported cases globally. So far to date in the UK there have been 5.52 million known cases, of which 129,000 have died.

Acute Covid infection is now well recognised by both medical professionals and the wider population, yet beyond the official features of new or persistent cough, fever, and change in smell or taste, clinicians have been aware of asymptomatic sufferers and through the SPECTOR study a range of other less common symptoms such as diarrhoea, headaches and other vague and non-specific symptoms which may raise suspicion of acute infection.

Findings from the REACT-2 study estimate that over 2 million people however are suffering with prolonged symptoms beyond their acute illness. In the first and second waves, these were poorly defined, with patients seeking answers to their persisting, enduring and disabling symptoms which lingered for weeks after they had initially contracted Covid. Very little was known about the natural history of the disease now commonly referred to as Long covid. With upto 30% of positive cases still symptomatic after 3 weeks in the UK, this will undoubtedly place a tremendous strain on health and social care.

This essay aims to share awareness into definitions, patterns of illness, aetiologies, knowledge of red flags and clinical considerations, recovery and rehabilitation.

Personal Stories

Large numbers of health care workers have been adversely affected by COVID-19 infection, many acquiring it whilst working with limited awareness of infectivity, testing and PPE particularly in the first wave.

As case numbers started to rise, there was little awareness that sequalae may persist beyond the public health messages of self limiting illness. Social Media enabled a growing voice of unheard stories during the first wave. "Long haul" Support groups on facebook, #longcovid started to trend on twitter, and sufferers started to compare symptoms, seek answers and collaborate on Education. Both authors found the support particularly from the Long Covid Doctor's Facebook group to be an eye opener, and have since collaborated on numerous projects, publications, and engaged as patient participants with ongoing research into Long Covid. One of their key aims to to spread and educate colleagues across the world on the effects of Long Covid, and have worked in collaboration with various local and international organisations including Mount Sinai Hospital in New York.

A personal story

I acquired Covid 19 in the first wave of the pandemic in April, working as a GP. Little was known about the severity or spread at the time. Testing was hard to come by, if non existent, and in my health care setting we were screening only for people returning from South East Asia as being high risk. Government and public health policy on social distancing, masks and isolation were in early stages, and of course there were PPE shortages. But more importantly there was little foresight about the possible impact and effects of this virus on our health and world.

My initial symptoms of dry cough and myalgia, flu like symptoms were mild and unconcerning. Similar to the transient viral infections that most Health professionals encounter during winter months, yet do not prevent them from working. However as time progressed fatigue and breathlessness started to develop. I noted a resting tachycardia, which was unusual as I was previously fit. Luckily around week 3, a handful of tests were offered to health care professionals in the local area. Following an initially inconclusive result (lost or inadequate sample) a retest at day 25 came back positive.

The guidance was that covid was a self limiting mild illness, which may affect those with pre-existing conditions, frail or immuno-suppressed, and may last for 2-3 weeks. However as the days passed by, I realised I was feeling worse rather than better.

Access to health care was changing, and face to face assessment by a clinician was hard to come by, and in the early days of primary care adopting telephone assessment, shared understanding and perception of the virus amongst clinicians was variable. After several unreassuring encounters with primary care, I presented to hospital acutely short of breath at week 6.

Some of the complications that were being reported including delayed thromboemboli, fibrosis and myocarditis were excluded.

Whilst this was reassuring, I was discharged without answers for my ongoing symptoms. I sought subsequent private opinions, albeit virtually, and after further reassuring tests including a HRCT scan I was informed this may just take time and rehabilitation. Over the last year, I have made significant improvements with enduring symptoms of fatigue, dysphonia, tachycardia, and shortness of breath; but the memories of traumatic and fearful experiences are still raw.

Like many others with persisting symptoms, I have lived with the uncertainty of not knowing when this will get better, the disappointment of having to fight for investigation, reassurance, and exploration of symptoms, and struggled to get rehabilitation to assist with recovery due to restrictions in services. I found help through various long covid groups onlines. In particular a Doctor's group with over 1200 members of the medical profession, from this we have shared personal anecdotes and gained an understanding of the condition and how it presents differently and also to support colleagues who have received

little understanding from colleagues in the same profession. Another real positive to come out of the groups is that patient stories are extremely powerful, and have stimulated questions about aetiologies and treatments for sequelae, which have prompted independent research and collaboration.

Definitions

In the initial waves of the pandemic, a lack of accessibility, reliability and availability of mass testing had meant that many patients with Acute Covid infection did not have a documented test. **Therefore reported symptoms consistent with previous Acute Covid infection and associated ongoing symptoms is enough to consider a diagnosis of long covid once other conditions have been excluded, even in the absence of a positive PCR test.**

Finally in January 2021, NICE established definitions of syndromes after acute COVID infection. Long covid is defined as "Signs and symptoms that continue or develop after acute COVID and persisting for 12 weeks or more."

This definition was vital, because it is now estimated that 10-30% of people having acquired Acute Covid continue with persisting symptoms. Using the correct codes in clinical symptoms will prompt appropriate referral, follow up and care navigation for patients.

Acute COVID	Signs and symptoms of COVID-19 for <4w. *SNOWMED CT code:* *Acute COVID-19 infection*	Most symptoms Resolving in the first 12w after infection	Life- threatening complications may develop at any time: if suspected, investigate urgently.
Long COVID	**Ongoing symptomatic COVID-19:** signs and symptoms of COVID-19 from 4–12w. *SNOWMED CT code:* *Ongoing symptomatic COVID-19*		
	Post-COVID-19 syndrome: signs and symptoms that developed during/ after an infection consistent with COVID-19 that persist for >12w and are not explained by an alternative diagnosis: ● Presents with clusters of symptoms that can affect any system in the body. Symptoms can fluctuate and change with time. ● Can be considered before 12w while investigating for an alternative cause for symptoms. *SNOWMED CT code:* *Post COVID-19 syndrome*	A minority of patients will have symptoms that persist >12w.	

It can be argued that it be more appropriate to use the terminology Post Acute Covid Syndrome or PACS, to recognise that the disease as a continuum following initial infection and that symptoms are enduring, whilst we do not fully recognise the condition. This terminology has certainly been adopted by several long covid services.

Epidemiology

Whilst numbers reported remain uncertain, due to variations in coding, linging, reporting and recording of symptoms, current estimates are in excess of 2 million. Prior to data from NHS coded records, much early data regarding Long Covid was derived from patient self reporting apps such as The Covid Symptom Study app. Whilst there was some differences in age and gender make up compared to the standard UK population, it was initially extrapolated that 1 in 7 people would be unwell for at least 4 weeks, 1 in 20 for 8 weeks, and one in 45 for 12 weeks or more. As the virus has mutated different populations seem to be affected, data from the ongoing REACT study of over 500,000 positive patients has shown that 6% of patient at least 1 ongoing troublesome symptom past 12 weeks, and 2% have 3 or more symptoms.

Whilst it is recognised that hospitalisation, particularly with intensive care input lends itself to developing longer term physical, psychological symptoms and impact on function. Long covid seems to be prevalent in large numbers of non-hospitalised patients too, and further research is needed to understand this.

The pandemic has highlighted many health inequalities that exist within our society and Long Covid too is reflective of this. Preliminary data from Imperial college which feeds into the ONS, and is due to be published soon shows that the prevalence of persistent symptoms are 1.5 times more prevalent in women than men, and that the risk of persistent symptoms increase with each decade or life. Other indicators which are associated with probability of persistent symptoms were obesity, smoking, and deprivation. This study interestingly reports Asian ethnicity being associated with a lower probability.

However, anecdotally, as there is a disproportionate percentage of healthcare workers of Ethnic minority background compared to the population at a large, there are many colleagues from minority groups affected by disabling symptoms of COVID. As with other health indicators, I suspect that there is a large degree of under-reporting of long covid symptoms in ethnic minority communities. There is currently a research study being planned to consider the experiences of patients from these groups, and that they may be under reporting due to a variety of factors including stigma, discrimination, access to altnerative care for symptoms, and variation in understanding of the disease.

Furthermore, whilst the vaccination programme is making tremendous progress in the UK, and despite mutations currently we are seeing both an encouraging decline in cases and deaths, there remains the question about whether vaccination will protect against the future development of long covid.

Symptoms

The complexity of the Covid pandemic, has meant that patients present to healthcare at different stages of their illnesses. It has been noted, that whilst some symptoms may develop shortly after acute illness, many have reported relapses of variable intensity of symptoms occurring sporadically several weeks or months later.

The aetiology is unknown, but likely to be multifactorial. There are theories regarding persistent viral load, reinfection or reactivation of dormant virus, effects on mitochondria leading to deconditioning, or whether there are immune mediated or ongoing inflammatory reactions. Infact patients who have been infected by other coronaviruses, such as during the SARS and MERS pandemics previously have also reported persistent respiratory, pain, and neuropsychiatric symptoms.

Whilst we do not fully understand the condition, it is imperative to consider the possibility of pathologies, distinct and unrelated to Covid-19 infection that may coincidentally develop in individuals including vascular events, autoimmune phenomena, and malignancies. Therefore it is vital that clinicians are not biased either positively or negatively by a history of acute Covid infection, and maintain curiosity

in their patient's stories and evaluate symptoms based on merit. Especially as the natural incidence of other diseases will only increase in coming months due to delayed presentations resulting from lockdown.

Although COVID-19 was primarily introduced as a respiratory tract infection. It has been found to damage the vascular endothelium of multiple other organs, notably the heart, brain, and kidneys, resulting in a multisystem disorder.

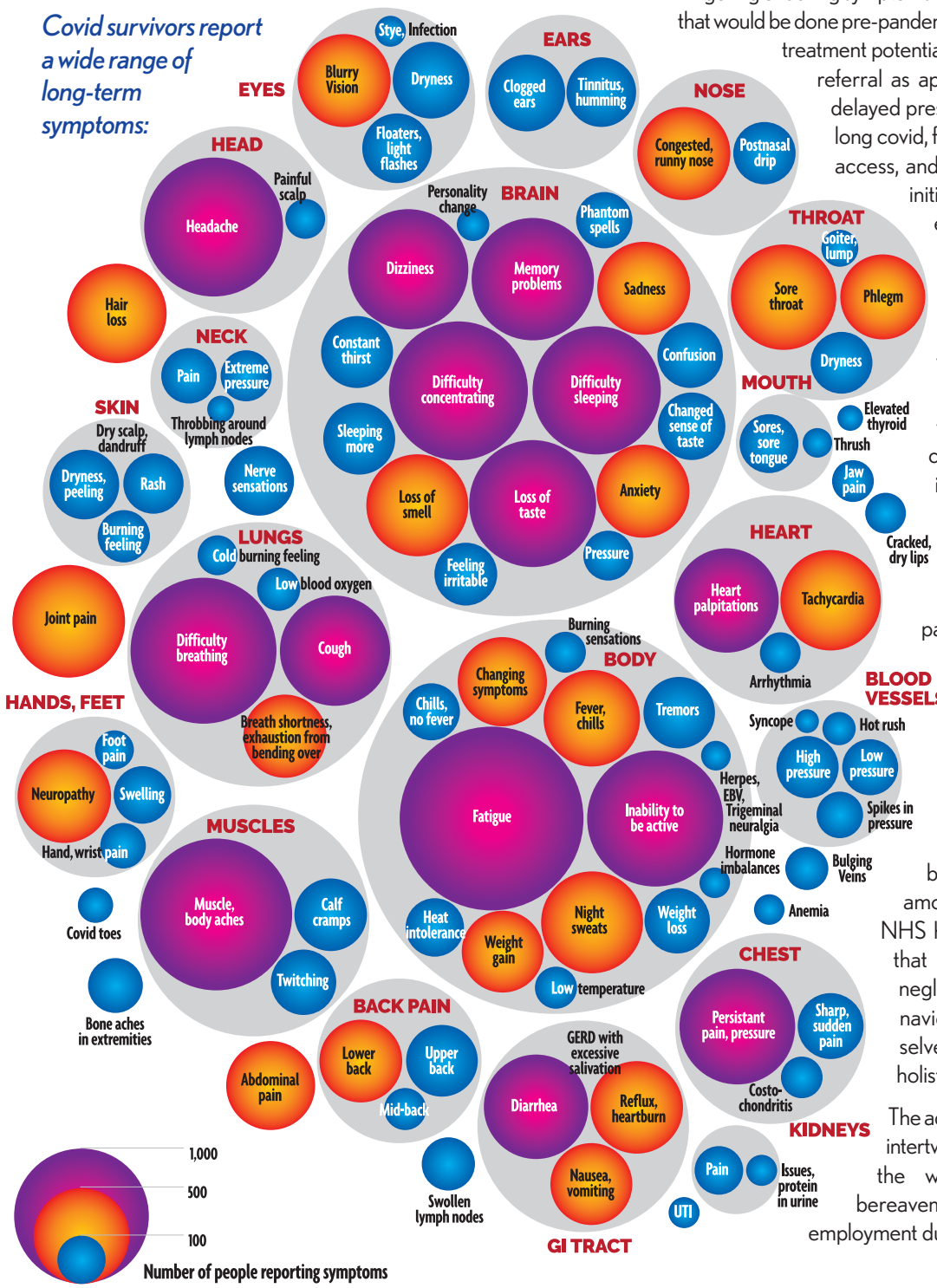
Look out for red flag symptoms, such as those found in transient ischaemic attack, stroke, pulmonary embolism, ischaemia, tachyarrhythmia, and myocarditis; cases of all of these have been seen post-COVID. Patients who sound or look very sick may need immediate medical help.

Assess the patient as you normally would, and consider referral to the usual acute specialties if suspicion is raised.

Red Flags
Severe or Worsening Shortness of Breath
New low pulse oximetry saturations <94% at rest or desaturation on exercise
Unexplained Chest pain
Severe dizziness or syncope
Palpitations or tachycardia at rest or minimal exertion
New neurological symptoms such as confusion, dysphasia, weakness
Severe psychiatric symptoms / suicidal ideation
Multisystem inflammatory syndrome in Children

Primary care follow up is important, and several appointments may be required to understand and investigate multiple symptoms. The patient perspective is vital here and it is important for clinicians to keep an open mind and think about possibilities of illness. This is still a new disease and until we understand the effects the virus has on multiple organs, and develop a sustainable evidence base it is important not to dismiss symptoms.

Lingering enduring symptoms deserve evaluation in the same manner that would be done pre-pandemic, with known empirical symptomatic treatment potentially helpful, investigation and speciality referral as appropriate. Many patients may have delayed presentation due to lack of awareness of long covid, fear of health care settings, changes to access, and fear of dismissal. Although this was initially anecdotal, there is now a growing evidence base of possibility of significant pathology in patients with long covid.



Psychological effects.

There is an unfortunate paradigm in medicine that we as clinicians can all fall into. "If the test is negative, and we can not explain the symptoms, it must be in the patient's head?" It is well recognised that new chronic illness, lack of continuity of care, and clinician confidence can all lead to uncertainty and affect psychological well being of patients, leading to stress and anxiety. Many long covid sufferers have not had access to the reassurances they deserve due to changes in access, resources and limited knowledge base surrounding their condition thus far.

Further factors such as Stress, burnout, and awareness of long covid amongst clinicians when demand on the NHS has been unprecedented has meant that patients have felt unheard and neglected this far, and many have had to navigate access to care pathways themselves, even exploring alternative and holistic therapies, or private opinions.

The added complexity of physical symptoms intertwined with traumatic experiences along the way related to access to care, bereavement and loss of loved ones or employment during the pandemic. Social challenges

imposed by national lockdown, isolation, and reduced contact with support networks and hence coping mechanisms, have also created an entangled web of stories compounding the symptoms in many long covid patients. It is therefore natural and expected there will be a spectrum of psychological stresses that co-exist in patients suffering longer term unexplained illnesses, varying from stress, anxiety, depression and PTSD. It is therefore vital that patients have access to and are signposted to support services, yet pertainantly physical symptoms must not be dismissed until adequately explored as patients have been extremely vulnerable over the last year, and telling their stories requires a lot of courage.

Long-Covid clinics

The emergence of 69 long covid clinics being set up nationally is welcome news. The complexity of long covid means that primary care will struggle to manage problems in limited time frames available in each GP consultation, and although follow up is always an option. Secondary care clinics are often organ specific, and due to the multi-symptom presentations of long covid patients requires a holistic view. So the concept of a one stop clinic to investigate, treat and rehabilitate patients is much needed. However many patients and even clinicians do not know of their existence or roles in their localities, and there is high levels of regional variation in what each clinic provides. Funding streams are also very tight, so the ideal service in an already stretched NHS dealing with repeated waves of acute infections is limited in what it can offer.

Many operate on a tiered structure with self care resources available to all. Referrals are made from primary care initially, and are triaged, and initial appointments may vary from being remote or face to face. Tools such as the Yorkshire Assessment Tool have been developed and used to screen for problems. Clinics may be GP led, yet have advice and guidance pathways with access to diagnostics and specialists, but models locally vary. There is often also Multi-Disciplinary Team involvement with IAPT psychologists, physiotherapists, Occupational Therapists, Speech and Language therapists, and often respiratory and chronic fatigue team involvement to help rehabilitate.

Prior to referral basic blood tests including FBC, U&E, LFT, CRP, TFT, hba1c and vitamin D level are often required. A BNP to screen for heart failure, and a chest x-ray by 12 weeks should also be performed. Although a negative D-Dimer and Troponin are useful to exclude the presence of acute cardio-respiratory illnesses, if they are being considered the patient should really be assessed in hospital and not primary care, and admission indicated. Oxygen saturations, pulse and a baseline ECG are often helpful, and if possible a 1 minute sit to stand test to check for desaturations on exertion may help to inform acute referral rather than long covid clinic referral.

Symptom Clusters / Conditons to consider

Fatigue and Post Exertional Malaise	This is very common, fatigue should be considered a symptom of an underlying problem. Consider screening for the usual culprits of fatigue including thyroid function, vitamin deficiencies, adrenal insufficiency, anaemia, insomnia and mental health problems. Ensure other systemic red flags are considered including weight loss, sweats, lymphadenopathy. It may also occur as part of myocarditis or MCAS. So keep an open mind and exclude other pathologies first, Post exertional malaise is commonly reported and poorly understood, and may be immediate or delayed. Recommending Activity Pacing rather than Graded Exercise Therapy is now thought to be a key part of long covid management.
Neuro-cognitive	A range of psychiatric symptoms are reported. Insomnia is common, multifactorial and can be incredibly disabling. Behaviour modification is key. CBT is evidence based and effective, and available on the NHS through Sleepstation. Additionally disruption of normal routines due to the pandemic can impact on circadian rhythm, suggesting a role for melatonin if pharmacotherapy is being considered. Brain-fog, confusion, and forgetfulness have all been commonly documented amongst sufferers. Heightened sensitivity towards auditory, olfactory and visual stimuli have also been distressing. Whilst neurocognitive assessment maybe hard to come by, online programmes and apps which have been used with other traumatic and degenerative brain conditions, are in development to provide opportunities for neurocognitive rehabilitation for patients to use at home and will hopefully be available through long covid clinics.
Cardio-respiratory and Thrombo-embolic	There is growing evidence of endothelial involvement post Acute Covid, and there have been numerous cases of venous thromboemboli post Acute covid, so consider this in patients presenting with pleuritic pain, acute shortness of breath, swollen legs, or acute neurological symptoms suggestive of embolic stroke. Investigate or refer acutely as appropriate. Cardiac manifestations such as myo/pericarditis can have viral based aetiologies and there have been cases post covid too. Persistent tachycardia is common and although may be due to deconditioning, it should be investigated in normal ways to exclude abnormalities. Consider the possibility of delayed pulmonary emboli or fibrosis in those with persistent breathlessness. Although asthma and dysfunctional breathing and hyperventilation, have been reported.
Auto-immune / Endocrine	Endocrine organs have ACE receptors, consider pituitary, thyroid, pancreas, adrenals. Diabetes mellitus and thyroiditis have been reported, so consider screening as appropriate.
Mast Cell Activation Syndrome (MCAS)	Patients will typically present with a constellation of recurrent seemingly unrelated symptoms. These may be: a) cutaneous and systemic (urticaria, angioedema, flushing, tachycardia, dyspnoea. b) gastrointestinal - abdominal cramps, diarrhoea, nausea and vomiting c) oculonasal - congestion, nasal discharge, itchy and watery eyes, d) polyuria, cognitive dysfunction and anaphylaxis have also been seen. Consider antihistamines / H2 receptor antagonists / montelukast, and referral to an immunologist
Dysauto-nomia	The two most common presentations are Postural Orthostatic Tachycardia Syndrome (POTS), symptoms include palpitations, syncope, chest pain, tremor and sweating on standing up; and Inappropriate Sinus Tachycardia. It is important to exclude red flag emergencies first, and then consider an active stand test, ECG, 24 hour BP and heart rate monitoring and an echo. Management strategies currently include increase salt and water intake, avoidance of caffeine and alcohol, compression garments, and referral to cardiology. Cardio-selective betablockers or ivabridine may be considered and have been shown to be effective.

A GP colleague who works in a long covid clinic reflected on her experience so far and is finding the service is being pushed to the limits, "We do not have the exact data yet, but the majority of patients that have had covid in the community require a medical review. The most common symptoms I see are shortness of breath, chest pain and tachycardia, fatigue, headaches, ongoing smell, taste, voice disorders and brain fog. Many patients are quite significantly sob with chest pain and I always have to try and assess if they are desaturating. If very unwell I either send them to ED or ambulatory care or fast track them to the respiratory Covid recovery clinic in hospital. They are reviewed face to face, have lung function tests and a CTPA. I can also request an urgent CTPA.

We are in the process of trying to set up a secondary care MDT and possible one stop clinic.

All of the patients who are breathless are referred to pulmonary rehab which they find very helpful.

I also refer many to the chronic fatigue team but we can only do this once medical problems have been ruled out."

The pandemic has upset the balance of the usual waiting times for essential investigations and even impacted on urgent clinic reviews. The inadequacies of care coordination between agencies, the risks assumed by existing pathways and limits to NHS resources have been exposed, with patients are waiting unacceptable periods of time for simple investigations such as 24 hour tapes and Echocardiograms. Even urgent referrals to specialities face unacceptable delays, and this will no doubt impact significantly on outcomes for patients with potential for delayed and missed diagnosis and poorer health outcomes, not to mention delayed return to function impacting on both employment and functionality.

Summary

Consider that the sequelae after acute covid infection can be multi-system, fluctuate and last for prolonged periods. The medical profession is only just beginning to describe cases, so evidence for any interventions are still limited and usually based on expert consensus or anecdote. It is therefore vital that we focus on the possibility of illness rather than probability in initial stages, and symptoms are screened for and diagnostic nets cast wide in patients who remain symptomatic. Long covid will leave an impact on the NHS for years to come, and there is an opportunity to support your patients through the unknown with compassion and courage so they may have access to appropriate health care.

Other Resources

www.yourcovidrecovery.nhs.uk

Adult Cardiorespiratory Enhanced and Responsive Service, Homerton University Hospital NHS Foundation Trust. Post COVID-19 patient information pack

Hertfordshire Community NHS Trust. Information pack for patients who have had COVID-19 or COVID-19 symptoms

Royal College of Occupational Therapists. How to conserve your energy— practical advice for people during and after having COVID-19

Chartered Society of Physiotherapy. COVID-19: the road to recovery activity planner

Mental Health Foundation. How to look after your mental health during the coronavirus outbreak

Mind. Coronavirus and your mental health

Further reading:

Greenhalgh T, Knight M, A'Court C et al. Management of post-acute covid-19 in primary care. BMJ 2020; 370: m3026.

Chaudhry A, Master M, Top Tips: managing long covid. Guidelines in Practice 2021:24:26-31

Long covid Guidance update: Long COVID assessment and management. https://www.mimslearning.co.uk/courses/guidance-update-long-covid-assessment-and-management

References:

Assessment

Greenhalgh T, Knight M, A'Court C et al. Management of post-acute covid-19 in primary care. BMJ 2020; 370: m3026.

Lip S, Peters E, Watts M, et al. COVID-19 Scottish primary care hub triage guide. University of Glasgow, June 2020. Available at: eprints.gla.ac.uk/221326/2/221326InfoGraphic.pdf

Multi-organ

Lambert N, Survivor Corps. COVID-19 "long hauler" symptoms survey report. Indiana School of Medicine, July 2020. Available at: dig.abclocal.go.com/wls/documents/2020/072720-wls-covid-symptom-study-doc.pdf

Sudre C, Murray B, Varsavsky T et al. Attributes and predictors of Long-COVID: analysis of COVID cases and their symptoms collected by the COVID Symptoms Study App (pre-print before peer review). medRxiv 2020; DOI: 10.1101/2020.10.19.20214494.

Nisen M, He E. COVID everlasting. Bloomberg Opinion, September 2020. www.bloomberg.com/graphics/2020-opinion-covid-long-haulers-chronic-illness/ (accessed 17 December 2020).

National Institute for Health Research. Research into the longer term effects of COVID-19 in non-hospitalised individuals. www.nihr.ac.uk/documents/research-into-the-longer-term-effects-of-covid-19-in-non-hospitalised-individuals-call-scope/26101 (accessed 17 December 2020).

Editorial. Understanding the long-term health effects of COVID-19. EClinicalMedicine 2020; 26: 100586.

Dennis A, Wamil M, Kapur S et al. Multi-organ impairment in low-risk individuals with long COVID (pre-print before peer review). medRxiv 2020; DOI: 10.1101/2020.10.14.20212555.

Cardiology

Puntmann V, Carerj L, Wieters I et al. Outcomes of cardiovascular magnetic resonance imaging in patients recently recovered from coronavirus disease 2019 (COVID-19). JAMA Cardiol 2020; 5 (11): 1265-1273.

A'Court C, Shanmuganathan M, Leoni-Moreno J. COVID-19 and cardiac considerations in the community. Br J Gen Pract 2020; 70 (700): 524-525.

Respiratory

Fraser E. Long term respiratory complications of COVID-19. BMJ 2020; 370: m3001.

Neurology

Paterson R, Brown R, Benjamin L et al for the UCL Queen Square National Hospital for Neurology and Neurosurgery COVID-19 Study Group. The emerging spectrum of COVID-19 neurology: clinical, radiological and laboratory findings. Brain 2020; 143 (10): 3104-3120.

Mental Health

Serafini G, Parmigiani B, Amerio A et al. The psychological impact of COVID-19 on the mental health in the general population. QJM 2020; 113 (8): 531-537.

Sotgiu G, Dobler C. Social stigma in the time of coronavirus (in press). Eur Resp J 2020; DOI: 10.1183/13993003.02461-2020

Ong J, Lau T, Massar S et al. COVID-19-related mobility reduction: heterogenous effects on sleep and physical activity rhythms. Sleep 2020: zsaa179. DOI: doi.org/10.1093/sleep/zsaa179

Autonomic

Dani M, Dirkson A, Taraborrelli P et al. Autonomic dysfunction in 'long COVID': rationale, physiology and management strategies. Clin Med 2020; 21 (1): ePub ahead of print. DOI: doi.org/10.7861/clinmed.2020-0896

REHAB

NHS England. Your COVID recovery website. NHS England, 2020. www.yourcovidrecovery.nhs.uk

NICE. Statement about graded exercise therapy in the context of COVID-19. Guideline in development. Available at: www.nice.org.uk/guidance/gid-ng10091/documents/statement

Barker-Davies R, O'Sullivan O, Senaratne K et al. The Stanford Hall consensus statement for post COVID-19 rehabilitation. Br J Sports Med 2020; 54: 949-959.

NHS England. Mental health and wellbeing. Available at: www.england.nhs.uk/nhsbirthday/get-involved/live-well/mental-health-and-wellbeing/

Adult Cardiorespiratory Enhanced and Responsive service, Homerton University Hospital NHS Foundation Trust. Post COVID-19 patient information pack. Hackney Citizen, May 2020. Available at: www.hackneycitizen.co.uk/wp-content/uploads/Post-COVID-19-information-pack-5.pdf

Hertfordshire Community NHS Trust. Information pack for patients who have had COVID-19 or COVID-19 symptoms. Welwyn Garden City: HCT, 2020. Available at: www.hct.nhs.uk/media/4113/covid-19-patient-information-pack-for-patients-with-symptoms-october-2020.pdf

Royal College of Occupational Therapists. How to conserve your energy–practical advice for people during and after having COVID-19. Available at: www.rcot.co.uk/conserving-energy.

Chartered Society of Physiotherapy. COVID-19: the road to recovery activity planner. London: CSP, 2020. Available at: www.csp.org.uk/system/files/documents/2020-06/001751_covid19-the_road_to_recovery_activity_planner_v3.pdf

Mental Health Foundation. How to look after your mental health during the coronavirus outbreak. Available at: www.mentalhealth.org.uk/coronavirus

Mind. Coronavirus and your mental health. Available at: www.mind.org.uk/information-support/coronavirus/

Sivan M, Halpin S, Gee J. Assessing long term rehabilitation needs in COVID-19 survivors using a telephone screening tool (C19-YRS tool). Adv Clin Neurosci Rehabil 2020; 19: 14-17.

Chartered Society of Physiotherapy. COVID-19: the road to recovery. www.csp.org.uk/public-patient/covid-19-road-recovery.

Summary of management of Long Covid

Information sourced from "Covid-19 Primary Care Resources".

Prevalence

Evidence is rapidly changing. Recent evidence from the Office of National Statistics on long Covid suggests:

- An estimated 945,000 people living in private households in the UK (1.46% of the population) were experiencing self-reported long Covid at 4 July 2021
- Fatigue was the most common symptom reported followed by shortness of breath, muscle ache, and loss of smell
- Prevalence of self-reported long Covid was greatest in people aged 35 to 69 years, females, people living in the most deprived areas, those working in health or social care, and those with another activity-limiting health condition or disability

Management

NICE advise clinicians to take a comprehensive clinical history and appropriate examination in patients with ongoing symptoms after 4 weeks

Red flags and alternative diagnoses

- Exclude underlying pathology and "red flags" that require further investigation and treatment, before making a diagnosis of post Covid-19 syndrome
- Red flags include unexplained chest pain, worsening breath-lessness, 02 sats< 96%, new confusion and focal weakness
- Hypoxia, abnormal desaturations on mobilisation or cardiac sounding chest pain might be a sign of pericarditis, myocarditis, microvascular angina or venous thromboembolism (PE)
- Home pulse oximetry can be helpful in monitoring breathlessness

Investigations to consider in primary care:

- Bloods – may include FBC, CRP, U&E, LFTs, Ferritin, BNP and TFT
- ECG – if palpitations or chest pain
- CXR – if ongoing respiratory symptoms
- Consider use of a validated cognitive assessment tool if any concerns regarding cognition are raised

Indications for specialist assessment

- Indications for specialist assessment include clinical concern along with respiratory, cardiac, or neurological symptoms that are new, persistent, or progressive
- Refer same day if any concerns of an acute thromboembolic event
- Patients with ongoing pathology across multiple organ systems can be referred to post-Covid MDTs from 4 weeks onwards once other pathology is ruled out
- Secondary care investigations may include CT, MRI or tilt table

Other guidance for GPs

- NICE advise GPs to give advice and information on self-management such as setting realistic goals and information about new or continuing symptoms of Covid-19
- PHE advise patients to discuss local care pathways with their GP and to refer to Your Covid Recovery
- The RCGP recommends patients are signposted to SIGN patient information
- Support people in discussions with their employer, school or college eg a phased return
- Explain to people that it is not known if over-the-counter vitamins and supplements are helpful, harmful or have no effect in the treatment of new or ongoing symptoms of Covid-19
- Consider social prescribing or referral to social care
- Children – Consider referral from 4 weeks for specialist advice if ongoing symptomatic Covid 19 or post Covid 19 syndrome
- Elderly – Bear in mind that gradual decline, deconditioning, worsening frailty or dementia, loss of interest in eating and drinking can be signs of long Covid
- Many patients recover spontaneously (if slowly) with holistic support, rest, symptomatic treatment, and gradual increase in activity.

DOCTORS LONG COVID SUPPORT Group

For doctors who have or feel they might have long Covid

- Doctors in Distress is a charity created to raise awareness on the value of medical professionals health and well-being (Doctors-in-distress.org.uk)
- They are running a support group series on zoom for doctors who have, or feel they might have, long Covid
- There are 9 sessions starting on Wednesdays at 11 am, the first of which is on Wednesday 14th October
- The sessions will be facilitated by Dr Sue Warren and Dr Clare Gerada.

From ***The Editor's Desk***

Whistleblowing-
Another tricky art, or a slippery slope?

Ajit Sinha MBA MSc CPHR SHRM-SCP RCIC Principal Consultant, Checkpoint Immigration Strategies, Canada

Whistleblower – Defined

The Webster dictionary defines a Whistleblower as ***"an employee who brings wrongdoing by an employer or by other employees to the attention of a government or law enforcement agency."*** There are several cases in history when individuals have shaken the government and possibly educated and helped humanity to drive some specific activities differently and understand the implications of actions of the government, media, corporates, and even ordinary people.

Snowden's Legacy

One of the most famous case is Edward Snowden[1] in the USA who leaked classified NSA (National Security Agency) information in 2013, exposing several global surveillance programs. After being charged with violating the Espionage Act, Snowden fled to Russia. Snowden's revelations have opened our eyes to our vulnerability. Our belief that our data is safe on the internet, has been exposed. The power of the tech giants in the industry as well as the government is now known. What is important is the implications of our actions, our duty to the nation, the humanity and the ease with which both personal information and collection of data is accessed from online sources that were considered safe in the past. *Snowden's 2013 revelations led to changes in the laws and standards governing American intelligence agencies and the practices of U.S. technology companies, which now encrypt much of their Web traffic for security. Snowden's ultimate decision to turn his back on his NSA colleagues, spill the agency's guts, and condemn himself to exile is the story of an ambitious geek smart enough to shoot up through the NSA's ranks while keeping intact ideals for the internet that were entirely opposed to those of his employer*[2]."

Are those who uncover and communicate the actual truth, protected from any repercussions and or retaliation? Have government entities or corporations enacted laws and provisions to protect whistle-blowers? It is tragic that despite legal provisions, whistle-blowers have almost always incurred the wrath of the "powers" that have been exposed. Snowden himself is living in Russia. Julian Assange, founder, and editor-in-chief of Wikileaks – the organization which leaked millions of classified cables of the US and various other governments is holed up in the Ecuadorian embassy in London to prevent extradition to the USA[2].

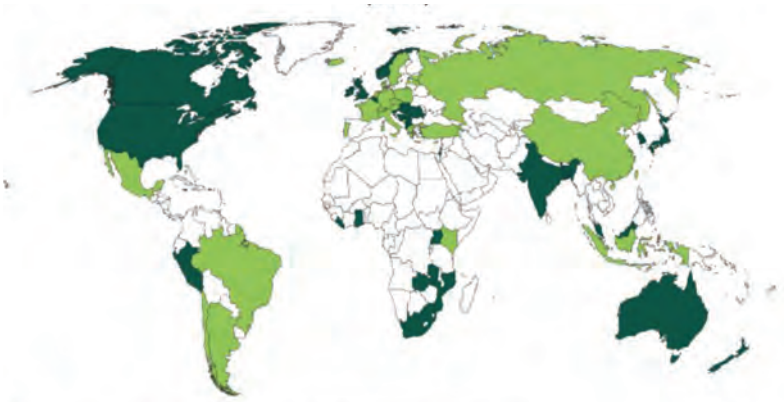
Is the USA secure?

The list of individuals who have gone "public" of a wrongdoing, have been hounded and treated badly. Across the globe all governments have enacted "strong" provisions in their laws and statutes to protect whistle blowers. The USA has by far the best provisions to ensure safety and security of Whistleblowers. In this list of countries, Canada has the dubious distinction of being consistently on the international ridicule list. Just to compare, in September 2019, a whistleblower accused Donald Trump of engaging in an illegal quid pro quo, the U.S. president and his allies agitated for the identity of the anonymous intelligence officer to be revealed. Thanks to the strength of U.S. whistleblower protections, the complainant's name remains unknown (later determined to be an official of the CIA).

On the other hand, when open complaints were submitted in 2020 against senior Canadian armed forces officers for sexual harassment, the entire redressal machinery turned a deaf ear. It was only after negative publicity in the Canadian press, did the federal government remove at least three senior generals in separate incidents of sexual misconduct[3]. The case is being investigated but justice is delayed. The peculiar state in Canada is due to different provincial level provisions for whistleblowers[4].

There are many in history who have contributed positively. Mark Felt, famously known as "Deep Throat" was instrumental in impeaching President Nixon in the Watergate scandal in 1974. His identity was kept secret till 2005. Edward Snowden has already inspired a Hollywood movie on his actions. Chelsea Manning was responsible for releasing nearly three-quarters of a million classified or sensitive documents to WikiLeaks. She continues to be in prison for the balance of her 35 years jail sentence[2].

Countries with National Laws protecting Whistleblowers (2017)



Countries with dedicated national laws protecting whistleblowers:
Albania, Australia, Bangladesh, Belgium, Bosnia, Canada, Ghana, Hungary, India, Ireland, Israel, Jamaica, Japan, Liberia, Luxembourg, Macedonia, Malaysia, Malta, Mozambique, New Zealand, Norway, Peru, Republic of Korea, Romania, Serbia, Slovakia, Slovenia, South Africa, Uganda, United Kingdom, United States, Zambia

Countries with other national miscellaneous laws or provisions protecting whistleblowers:
Argentina, Armenia, Austria, Brazil, Chile, China, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Iceland, Indonesia, Italy, Kenya, Latvia, Mexico, Montenegro, Netherlands, Poland, Portugal, Russia, Sweden, Switzerland, Turkey

Source: Environmental Law Institute.

Note: This map includes dedicated whistleblower laws, as well as partial whistleblower protections included in criminal codes, laws regulating public servants, and company and securities law. It excludes most other sector laws, including those related to health, safety, and the environment, which represent an additional substantial body of law in the United States. Because no single source consulted has compiled a comprehensive list of whistleblower laws worldwide, there may be additional whistleblower provisions in countries not listed. Countries with dedicated whistleblower laws are indicated in the table.

Why Whistleblowers need to be protected

Governments in many countries have acknowledged that providing protection to whistleblowers is essential. In essence it is understood that whistleblowers are an effective tool to detect crime and wrong-doing; the internal workings of an entity are generally obfuscated to the public and as such to definitively know of any "issues" is hard. However, these individuals are most likely to face threat to their life while facing retaliation for their actions. According to a 2016 OECD report, "Whistleblower protection is the ultimate line of defense for safeguarding the public interest[5]." The European Union provides a high-level protection to whistleblowers. India for example has laws protecting public servants only. As per a 2017 Environmental Law Institute study in the USA, across the world, 59 countries have legislation for the protection of whistleblowers.

Money laundering in British Columbia, Canada

Money Laundering in casinos in British Columbia, Canada is an ongoing case being investigated by the RCMP. Peter German, a retired investigator with the RCMP released an explosive report in 2019, which shook the Canadian political, legal, business and the law enforcement circles. While in service, German had constantly submitted reports which did not move the government machinery. *German's findings of 2019 drove home just how deeply money laundering had permeated not only B.C.'s gambling industry—an estimated $100 million in dirty money had passed through the province's casinos—but also other industries where large sums of cash are still commonly accepted*[6]. The horrific truth is that all this financial crime continues to remain unpunished. The Canadian provincial governments as well as the federal government move at a snail's pace to implement urgent and immediate decisive actions. What is this inaction leading to? Gang wars, killing and bizarre shootings even in crowded shopping malls leading to death of innocent bystanders.

Corruption in corridors of power has been an open secret, we know it is there, we just do not know the extent of this malaise. Most of the players involved are ruthless in their endeavors to add to their wealth. There is no stopping them to collude with the corrupt, the mafia, drug dealers and in some cases terrorists too. The end goal is more money. President Donald Trump did not hesitate to extort a foreign leader to commit election interference on his behalf, which constituted a betrayal of his oath of office and therefore warranted opening a formal impeachment inquiry[7]. The fallout from the work Whistleblowers do, is retaliation, threat to life and in most cases counter claims to discredit the whistleblower. Legislation enacted by some nations are still considered inadequate for the protection of whistleblowers. There is a need to develop the whistle-blower-protection programs to offer the same personalized protection that witness-protection programs offer witnesses at risk of retaliation.

Failings in the National Health Service in the UK

Let me take you to other cases where individuals continued their crusade to highlight the wrongdoing rampant in an organization. Julie Dawn Bailey CBE was a central figure in the Stafford Hospital scandal in the United Kingdom. The failings in Stafford Hospital are considered one of the biggest scandals in the history of National Health Service (NHS) of the United Kingdom[8]. The standard of care was so appalling that it led to deaths of several hundred patients. It is said that the hospital had become driven by targets and cost-cutting leading to distress and suffering, which were "unimaginable". In a report published in 2013 by an independent inquiry chaired by Sir Robert Francis QC. The findings stated failings of NHS from the top to the bottom. It is not understood how NHS failed the trust and faith of the people. In 2015, Sir Robert Francis released the report titled "Freedom to Speak[9]", recommending developing a comprehensive, supportive and open culture to encourage staff and patients to raise any issues regarding patient care and safety. The current whistleblowing policy in NHS addressed the need of a standardised way for the organisation's support staff who raise concerns guided by this report. The policy proposed a system of internal Freedom To Speak Up Guardians, who should 'watch over the process', and 'oil the wheels'. Regrettably, the internal Guardians proposed by Francis have no specific powers and no formal role in core processes. They are only facilitators and invigilators. A robust policy exists; how much is the policy followed in letter and spirit is still of concern.

In addition to internal Guardians, Francis proposed a national office, now known as the National Freedom To Speak Up Guardian. Francis' primary reason for the creation of this office was to undertake external whistleblowing case reviews. Francis did at least expect the National Guardian to make recommendations about redress for individual patients and staff who had been harmed as a result of poorly handled whistleblowing

The NHS in the UK has several examples where whistleblowers are often not believed or even threatened. Harold Frederick Shipman, an English general practitioner is the most prolific serial killer in modern history. Dr Linda Reynolds[10] concerns were initially ignored. The police didn't believe her and closed all inquiries. Later in 2000, he was found guilty of the murder of 15 patients under his care; his total number of victims was approximately 250.

Dr Steve Bolsin[11] joined the Bristol Royal Infirmary in 1988 from another specialised unit at Great Ormond Street Hospital in London. He raised concerns about mortality in the Bristol paediatric heart surgery scandal. He was reported being ostracised and threatened by senior figures in the Trust hospital. Later, a public inquiry in 2001 found gross irregularities and clinical incompetence of the surgeons. Dr Bolsin then decided to leave the UK to work elsewhere. He and his family moved to Australia where he has made a successful career for himself. Dr Ian Paterson[12] carried out so-called cleavage sparing mastectomies for breast cancer without patients' consent, which were not accepted practice and fraudulently performed unnecessary surgery by deceiving patients and colleagues for years. Whistle-blowers were repeatedly ignored. It took several years before he was sentenced to 15 years imprisonment in May 2017. This was a colossal NHS governance failure.

Other cases in the UK and Bangladesh

Howard Stephen Jeremy Wilkinson is a British whistleblower whose actions helped to unearth the 2018 Danske Bank money laundering scandal[13]. His disclosure was part of his reporting that was published in 2018. The money laundering started from 2007 and continued till 2014. It was revealed that a Danske Bank branch located in Estonia had been involved in the suspected laundering of up to $235 billion U.S. dollars. Bangladesh has arrested Rozina Islam who reported the corruption and inefficiencies of the government in handling the Covid pandemic. The journalist has been accused of stealing documents which unearthed the corruption in the health ministry.

Case in Japan

Let us look at Japan. Masaharu Hamada[14], a corporate whistleblower, working in the Japanese medical device maker Olympus Corp, underwent an eight-year courtroom battle ending in early 2016 with a financial settlement and a promise from the company to stop harassing him. A whistleblower protection law was enacted in Japan

in 2004, but its implementation has not always been reliable, nor have whistleblower awards been substantial. In March 2016, a U.S. whistleblower that faced retaliation by the same company was awarded $51 million for his role in holding it accountable. Iceland on the other hand is considered a role model in embracing the tenets of a strong legislation and "showcasing whistleblowing as a legally and socially protected right". Post Iceland's human engineered 2008 economic crisis four bank executives responsible were prosecuted based on the information provided by whistleblowers. This approach indicated that whistleblowing was an act of loyalty to the country[15].

Other countries

Denmark on the other hand did not find the need to implement any legislation for whistleblowers. Saudi Arabia due to its monarchical structure does not support whistleblowing as it directly comments on the government actions – and the government in this case is headed by the monarchy. Switzerland's secretive banking system has had an unfortunate affect towards implementation of any credible whistleblowing measures. Brazil's 2013 anti-corruption laws have not been successful. South Africa introduced Protected Disclosures Act in 2000 to demonstrate the spirit of whistleblowing. However, one condition in the law was to report the complaint internally first. This was not consistent with the protection of anonymity, oversight, and disclosure channels[16].

What should be done?

There is no doubt that responsible journalism and contribution of ethical community leaders, are critical players in protection against corrupt practices and swindling of government and / or corporate funds. They individually or collectively provide the correct information with the intent to expose, provide indisputable evidence with professional ethics and skill, and either initiate or support legal, political and penal action against the perpetrators. The media and community leaders have a direct impact on the quality of information for people in arriving at an opinion. The freedom to publish or vocally communicate is an effective tool in the fight against corruption and exposing malpractices. Some countries misuse the executive powers to harass honest and professional journalists.

Surprisingly not all rich nations have a strong legislation and a protection system for whistleblowers. In some others, the country's cultural norms, ethnic values and beliefs, historical practices drive legislation and leave the whistleblowers to fend for themselves. The political scenario, corruption, the industries, industry state relationships have a strong influence in the behaviour of administrative systems handling information submitted by whistleblowers. The future is either protection or prosecution. This future dictates the actions of the whistleblowers. Whistleblowing is an effective tool to expose corruption, fraud and wrongdoing. The reality is legislation is not effective when it is opposed by culture nuances.

Greed is a part of human nature. Immoral and criminal acts to amass wealth are a consequence of this greed. Whether it is corrupt individuals or corporations or governments, they are all a cancer on democracy, humanity, and society. Whistleblowers are potential cures for such "ailment" when the official structure to handle such malaise aids the criminals and the unscrupulous. We know some whistleblowers have lost their careers, some others have lost their lives and families. Some gave up and few did not. This should not be acceptable to us – they let the public know out of a sense of justice and for the betterment of society. Anonymity is their protection and weapon. It is my opinion that they need help from organizations which support whistleblowers, reputable lawyers, technologists who are exceptional in their skills and journalists known to have integrity.

Where are we?

Progress in many countries has been made. Barriers continue to remain. The importance of creating legislation with provision of external reporting needs to be understood in principle and spirit. The balance between legislation and cultural practices must be viewed against the loyalty to the country. Actions of the Whistleblowers must be treated as legally and socially protected right. Provision should also be in the law to punish misuse of whistleblowing provisions. The provision a whistleblower is always looking at is anonymity and safety to life. While many countries have made progress in adding new protections, studies continue to show major weaknesses in whistleblower protection. "Breaking the Silence" noted that whistleblower programs in many G20 countries suffered from "the lack of protected external disclosure channels, a lack of protection for anonymity, and a lack of dedicated oversight to receive and investigate disclosures."[16]

What should be done is the establishment of reward laws, which will serve as an incentive to people who take the risk of going against the powerful, corrupt and dangerous. What is also absent is the provision of no retaliation against the whistleblower. Understanding process or action or decision may be wrong, however, if the intention of the information provider is noble and to protect the larger population, country in particular, the individual must be encouraged and engaged in submitting what they think is a "wrongdoing". Not many countries have progressed in the robust policy to reward and protect against retaliation. The New Whistleblower's Handbook[17] is a step-by-step guide on actions to be taken for protection and support provided by legislation and the country.

The role of whistleblowers has been recognized. The protection for whistleblowers has now become a part of international law subsequent to United Nations accepting Convention Against Corruption[16]. This Convention in 2018 was signed by 140 nations and formally ratified, accepted, approved, or acceded by 137 nations, including the United States. Support for Whistleblower protection has also seen respectable growth. There is more work to be done and a long journey ahead.

References:

1. Briger, Sam & Chaloner, Thea, NPR 24 Hours News, Edward Snowden's Interview, 19 September 2019, https://www.npr.org/2019/09/19/761918152/exiled-nsa-contractor-edward-snowden-i-haven-t-and-i-won-t-cooperate-with-russia
2. Geier, Thom, The Wrap, 9 Whistleblowers Who Changed the Course of History, 15 October, 2015, https://www.thewrap.com/9-whistleblowers-who-changed-the-course-of-history
3. Hopper, Tristin, National Post, What you need to know about the military sexual misconduct scandal involving Gen. Vance, 07 May, 2021, https://nationalpost.com/news/canada/what-you-need-to-know-about-the-military-sexual-misconduct-scandal-involving-gen-vance
4. Toub, Micah, CPA Features, Pivot Magazine, Canada needs to get serious about whistleblower protections. Here's why, 27 April, 2020, https://www.cpacanada.ca/en/news/pivot-magazine/2020-04-27-canada-protecting-whistleblowers
5. OEDC (Organisation for Economic Co-operation and Development) Report, Anti-Corruption and Integrity Hub, 16 March, 2016, https://www.oecd-ilibrary.org/docserver/9789264252639-en.pdf?expires=1626986592&id=id&accname=guest&checksum=DA1338E7AFF70D38580F482275F04B35
6. Tanner, Adrienne, CPA Features, Pivot Magazine, Peter German is on a mission, 24 April, 2020, https://www.cpacanada.ca/en/news/pivot-magazine/2020-04-24-peter-german-dirty-money
7. BBC News, Trump impeachment: The short, medium and long story, 05 February, 2020, https://www.bbc.com/news/world-us-canada-49800181
8. BBC News, Stafford Hospital scandal: The real story behind Channel 4's The Cure, 19 December, 2019, https://www.bbc.com/news/uk-england-stoke-staffordshire-50836324
9. National Health Service, Freedom to Speak, 11 February, 2015, https://www.england.nhs.uk/ourwork/whistleblowing/freedom-to-speak-up-whistleblowing-policy-for-the-nhs/
10. Rodger, Jenny, Mirror UK, GP Dr Harold Shipman, 26 September 2020, https://www.mirror.co.uk/tv/tv-news/harold-shipman-away-murder-20-22705895
11. Macdonald, Victoria, Channel 4 News, How blowing the whistle cost two men their NHS careers, 26 October 2013, https://www.channel4.com/news/by/victoria-macdonald/blogs/blowing-whistle-cost-men-nhs-careers
12. Paterson, Ian inquiry, The Guardian, 04 February 2020 https://www.theguardian.com/society/2020/feb/04/ian-paterson-inquiry-culture-of-denial-allowed-rogue-breast-surgery
13. Turner, Jane, Whistleblower Network News, Howard Stephen Jeremy Wilkinson, 19 October, 2020, https://whistleblowersblog.org/whistleblower-of-the-week/howard-stephen-jeremy-wilkinson/
14. Yuri, Kageyama, Associated Press, The Seattle Times, Olympus settles with Japan whistleblower after 8-year battle, 17 February, 2016, https://www.seattletimes.com/business/olympus-settles-with-japan-whistleblower-after-8-year-battle/
15. Morgan & Morgan, The Whistleblower Attorneys, The Best and Worst Countries for Whistleblowers, 10 February, 2021, https://www.whistleblowerattorneys.com/blog/best-worst-countries-whistleblowers
16. Whistleblower Laws Around the World, National Whistleblower Center, 2019, https://www.whistleblowers.org/whistleblower-laws-around-the-world/
17. The New Whistleblower's Handbook, National Whistleblower Center, March 2011, https://www.whistleblowers.org/book/know-your-rights/

The management of Pericarditis

Dr Praveen Gladston FY2 Trainee, Wrightington, Wigan & Leigh Teaching Hospitals *(Pictured)*
Dr Bryony Sedgwick Cardiology Specialist Trainee, North Western Deanery
Dr Sanjay Arya Consultant Cardiologist & Medical Director, Wrightington, Wigan & Leigh Teaching Hospitals

Case

A 43 year old male presents with central chest pain, which came on during sleep and was relieved on sitting up and getting out of bed. He was not breathless when he woke, described the pain as sharp, worse on taking a deep breath and coughing. The nature of the pain is making him breathe shallow, but otherwise he is not breathless. He reports having had non-specific viral symptoms in the preceding days but has been otherwise well.

The Problem

Pericarditis is a syndrome associated with inflammation of the pericardial sac with or without pericardial effusion. Pericarditis is sub-classified as acute, incessant, recurrent or chronic based on the time, course and recurrence of symptoms. It is a common but benign clinical syndrome. However, ST elevation Myocardial Infarction (STEMI) is amongst the most important differential diagnosis. Hence confident differentiation is required to ensure appropriate reassurance and management.

Type of Pericarditis	Cause	
Orthopnoea	**Viral:** Coxsackieviruses A and B, echovirus, mumps, adenovirus, EBV, HIV, influenza **Bacterial:** *Pneumococcus, Streptococcus, Staphylococcus, Legionella* **Mycobacterial:** *M tuberculosis, M avium-intracellulare* **Fungal:** histoplasmosis, coccidioidomycosis, candidiasis, blastomycosis **Other:** syphilis, parasites, Q fever	
Noninfectious	Idiopathic Neoplasm Metastatic disease Hypothyroidism Aortic dissection with hemopericardium Pneumonia	Mesothelioma Renal failure Myocardial infarction
Autoimmune-related	Connective-tissue disease: SLE, RA, scleroderma, mixed Arteritis: polyarteritis nodosa, temporal arteritis Inflammatory bowel disease Post-MI syndrome	
Drug-induced	Procainamide Hydralazine Isoniazid	Cyclosporine Phenytoin
Trauma-related	Thoracic-duct injury Mediastinal irridation	

EBV: Epstein-Barr Virus; M: Mycobacterium; MI: Myocardial Infarction; RA: Rheumatoid Arthritis; SLE: Systemic Lupus Erythematosus.

Table 1 – Etiology of Pericarditis

Aetiology

Pericarditis has a broad range of aetiologies, the main being idiopathic. It has infectious like bacterial (notably the staphylococcus and streptococcus) but viral being the most common.

Other causes include neoplastic, trauma and auto-immune. Table 1 (below left) depicts the aetiology of Pericarditis. [1]

Clinical Features and Diagnosis

Pericarditis is diagnosed by the presence of at least two of the following criteria:

i) Chest pain: (>85%) classically pleuritic, improved on leaning forward and made worse on lying flat
ii) Pericardial friction rub: (<33%), best heard at the left sternal edge, and may be transient
iii) ECG changes: (~60%) new widespread concave ST elevation or PR depression (Fig 1)
iv) Pericardial effusion: (60%) (Fig 2 and Fig 3)

Red flag features requiring referral to secondary care are clinical features suggestive of predominant myocarditis with pericardial involvement, i.e.:

- Orthopnoea
- Hypoxia
- Exertional breathlessness
- Pulsus Paradoxus
- Kussmaul's sign

Pulsus Paradoxus: This is an exaggeration of the normal pattern whereby the systolic pressure and the pulse pressure fall during inspiration. Normally the decrease in systolic pressure as measured by a sphygmomanometer is less than 10 mmHg.

Pulsus paradoxus is occasionally observed in patients with pericardial tamponade and obstructive airways disease.

Kussmaul's sign: Kussmaul's sign is a rise in JVP on inspiration. It is seen in conditions in which right ventricular filling is limited by pericardial fluid, non-compliant pericardium or myocardium.

Kussmaul's sign is occasionally observed in patients with cardiac tamponade, constrictive pericarditis or restrictive cardiomyopathy.

Routine Investigations:

Routine investigations (Table 2) for suspected acute pericarditis: [2]

Other ECG abnormalities that may be observed during the acute stage of pericarditis are: Sinus tachycardia, Atrial fibrillation, Electrical alternans (QRS alternans or rarely T wave alternans) or Low voltage, both suggesting pericardial effusion.

Management of Pericarditis:

The task force suggests that the term 'acute' should be adopted for new-onset pericarditis, 'incessant' for pericarditis with symptoms

Table 2: Recommended investigations for diagnosis of acute pericarditis as per ESC guidelines		
	Positive identifying features	**Class of recommendation & level of evidence**
ECG (Fig 1)	Global concave ST elevation	Ic
Transthoracic Echo (Fig 2)	Pericardial effusion	Ic
Chest X-Ray (Fig 3)	Globular cardiac silhouette	Ic
CPR and Troponin	Significant rises in troponin are suggestive of myocardial involvement	Ic
Table adapted from 2015 ESC Guidelines for the diagnosis and management of pericardial diseases.		

Above: Table 2 – Routine investigations or suspected acute pericarditis

persisting for four to six weeks, and 'chronic' for pericarditis lasting more than three months[8]. Recurrent pericarditis is diagnosed with a documented first episode of acute pericarditis, a symptom-free interval of four to six weeks or longer and evidence of subsequent recurrence of pericarditis.

Acute Pericarditis:

Acute pericarditis is a self-limiting disease without significant complications or recurrences in 70% to 90% of patients. Initial management of acute pericarditis should be focused on screening for specific causes which will determine the choice of therapy. If history and initial investigations support the clinical diagnosis, symptomatic treatment with aspirin or non-steroidal anti-inflammatory drugs (NSAIDs) with gastroprotection should be initiated. Colchicine (2 to 3mg oral loading dose followed by 1 mg daily for three months is recommended first-line therapy as an adjunct to aspirin/NSAIDs. It improves the response to medical therapy and halves the recurrence rate.

Incessant and Recurrent Pericarditis:

Low-dose corticosteroids should be considered in cases of contra-indications / failure of aspirin / NSAIDs and colchicine, and when an infectious cause has been excluded, or when there is a specific indication such as autoimmune disease. Serum CRP guides the treatment length and response to therapy. While initially effective, the use of steroids may promote recurrence and may attenuate the efficacy of colchicine if used first-line.[4]

For patients failing this approach and/or dependent on corticosteroids, the interleukin-1β antagonist Anakinra (2 mg/kg/day up to 100 mg) in patients with >3 recurrences, raised inflammatory markers, colchicine-resistance and steroid-dependence is showing some promising results in pericarditis treatment. [7]

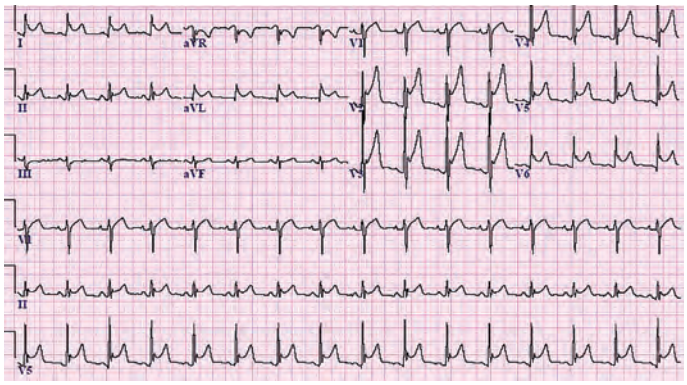


Fig 1: ECG: Global concave ST elevation

Other therapeutic options include azathioprine or intravenous immunoglobulin.[3] Azathioprine is best used as a steroid-sparing agent (typically at 1–3 mg/kg/day) and can take up to 3 months to be effective.[5] The effect of intravenous immunoglobulin is more immediate, but its availability is restricted and the evidence base for its use is limited to isolated case reports and small case-series.

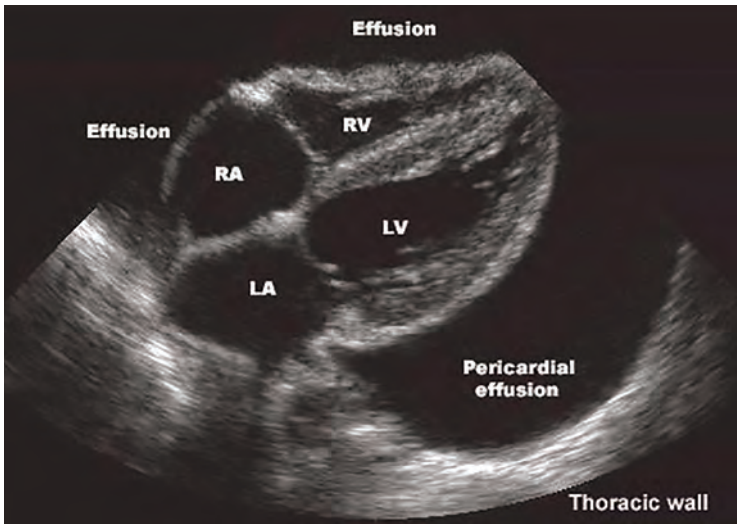
Other treatment modalities

Large pericardial effusions complicated by hypotension need to be aspirated. Rarely aspiration of a pericardial effusion may also be required for diagnostic purposes.

Treatment failure after first and second line treatments warrants referral to specialist services for consideration of immunosuppressant options or surgical intervention (pericardiectomy).

Exercise restriction: This should be until symptoms have been resolved and the diagnostic tests normalised (i.e. CRP, ECG and echo-

Below left: Fig 2: Transthoracic echo showing pericardial effusion
Below right: Fig 3: Chest X-Ray showing globular cardiac silhouette



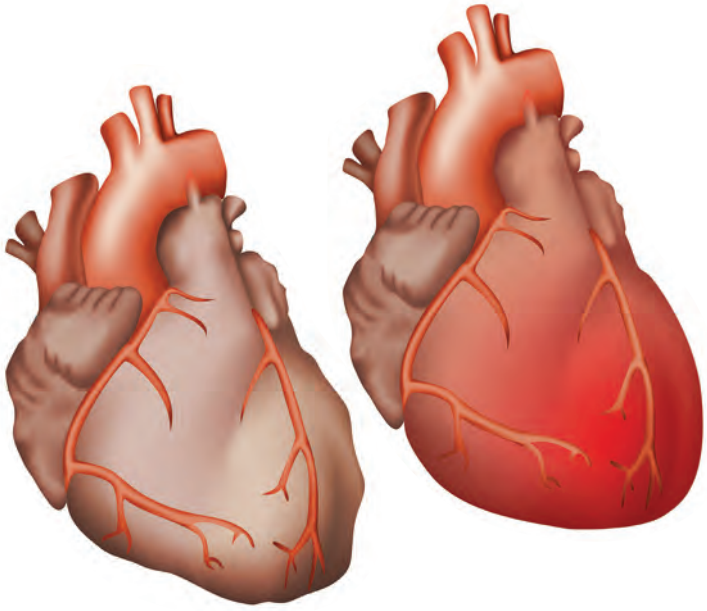
cardiogram). A minimal restriction of three months (after the initial onset of the attack) is suggested for athletes.

Conclusion

Acute pericarditis is a self-limiting disease without significant complications or recurrences in 70% to 90% of patients. Initial management of acute pericarditis should focus on screening for specific causes which will determine the choice of therapy.

Colchicine should be considered as a first-line therapy for acute pericarditis as an adjunct to aspirin/NSAIDs therapy for three months. Corticosteroids are not recommended as first-line therapy for acute pericarditis as they appear to encourage recurrences. Serum CRP should be considered to guide the treatment length and assess the response to therapy.

Most patients with acute pericarditis (generally those with presumed viral or idiopathic pericarditis) have a good long-term prognosis. Cardiac tamponade rarely occurs in patients with acute idiopathic pericarditis. Hospital admission is recommended for high-risk patients (red flag features) with acute pericarditis.



Illustrations of a normal heart (left), and a heart showing Pericarditis (right)

References:

1. Sally A. Arif US Pharm. 2011;36(2):HS-18-HS-20
2. 2015 ESC Guidelines for the diagnosis and management of pericardial diseases. European Heart Journal (2015) 36, 2921–2964 doi:10.1093/eurheartj/ehv318
3. Ismail TF. Acute pericarditis: Update on diagnosis and management. Clin Med (Lond). 2020;20(1):48-51. doi:10.7861/clinmed.cme.20.1.4
4. Artom G, Koren-Morag N, Spodick DH, et al. Pretreatment with corticosteroids attenuates the efficacy of colchicine in preventing recurrent pericarditis: a multi-centre all-case analysis. Eur Heart J2005;26:723–7.
5. Adler Y, Charron P, Imazio M, et al. 2015 ESC guidelines on the diagnosis and management of pericardial diseases. Eur Heart J 2015;36:2873–4.
6. Imazio M, Lazaros G, Picardi E, et al. Intravenous human immunoglobulins for refractory recurrent pericarditis: a systematic review of all published cases. J Cardiovasc Med 2016;17:263–9.
7. Brucato A, Imazio M, Gattorno M, et al. Effect of anakinra on recurrent pericarditis among patients with colchicine resistance and corticosteroid dependence: The AIRTRIP randomized clinical trial. JAMA2016;316:1906–12.
8. Imazio M., Brucato A., Trinchero R., Spodick D., & Adler Y. Individualized therapy for pericarditis. Expert Rev Cardiovasc Ther. 2009 Aug. 7 (8): 965-75.

Did you know..?

How do bees make honey?

It begins when a honeybee stops at a flower and sucks out the sweet liquid nectar. They store the nectar in a special sac called a honey crop, where enzymes break it down into simple sugars. Back at the hive, other bees move the nectar into honeycombs. They hover above the cells, creating a breeze that dries out the nectar until it becomes honey, and then seal the cells with wax. Bees visit 2 million flowers to make a pound of honey.

Honey vs. Sugar

In this debate, honey may have an edge. It has healthy anti-oxidants, amino acids, and vitamins. But some experts say honey's benefits are too small to matter. Besides, a teaspoon of honey has 21 calories, compared with 16 for sugar. Don't give honey to children under 1 year of age. It may have trace amounts of botulism that will make them sick.

Premenstrual Syndrome

& PREMENSTRUAL DYSPHORIC DISORDER –

Diagnosis, Pathophysiology and Evidence-Based Treatment

Dr Nidhi Goswami MBBS, MS (O&G), MRCOG Speciality Doctor Obstetrics and Gynaecology, Wrexham Maelor Hospital, Betsi Cadwaladr University Health Board.

Dr (Mrs) Kalpana Upadhyay MBBS, MS (O&G), FRCOG, Dip in advance obstetric ultrasound, PGCTLCP, BMS accredited.
Menopause Specialist. Clinical Director & Consultant in Obstetrics and Gynaecology, Wrexham Maelor Hospital, Betsi Cadwaladr University Health Board.

Introduction

Premenstrual syndrome (PMS) represents a spectrum of disorders related to hormonal fluctuations in the normal menstrual cycle. Nearly 50% - 80% of women of reproductive age experience PMS like symptoms ranging from mild to severe. However, only 5-8% of women experience the symptoms at the extreme end of the spectrum known as Premenstrual Dysphoric Disorder (PMDD).[1] Non-specific symptoms and overlapping presentations with other medical and mental illnesses cause a significant delay in diagnosis and treatment, contributing to substantial morbidity and social burden due to the disease.(Table 1)

Table 1: **Differences between PMS and PMDD**

	PMS	PMDD
Prevalence	50-80%	3 – 8%
Severity of symptoms	Mild to severe	Severe
Presenting symptoms	Physical or emotional or both	Predominantly emotional
Diagnostic criteria	Subjective	DSM-V
Affective symptoms	May or may not be present	Always present
Who can manage	Usually managed in Primary Care	Mostly need a referral to secondary care/ Multidisciplinary care
Treatment	Can be managed on lifestyle modifications	Mostly need pharmacological treatment. May also need surgery

Pathophysiology

PMS/PMDD symptoms do not occur before puberty, during pregnancy and after menopause, highlighting that cyclical fluctuations in ovarian hormonal levels are obligatory for the manifestation of alteration in mood, cognition and affect.[2] Research indicates that women with PMDD have altered sensitivity to normal hormonal fluctuations, particularly estrogen and progesterone, that influence CNS function through alterations in neuroactive steroids. Modulation of neurotransmitters leads to higher activity in the brain's amygdala region, responsible for regulating emotions and behaviour. Recent work also suggests that progesterone metabolite (allopregnanolone) levels have a paradoxical effect on GABA receptors which mediates inhibitory neurotransmission in the brain and hence explains the predominant mood symptoms of PMDD.[3]

Diagnosis

Women with PMS/PMDD can present with a range of physical and emotional symptoms, commonly headache, breast tenderness, bloating, abdominal pain, greasy hair, changes in appetite and sex drive, mood swings, tiredness, disturbed sleep and anxiety. Essential diagnostic criteria are:

1) Temporal relation of symptoms to the luteal phase of the ovarian cycle
2) Relief of symptoms with menstruation
3) Symptom-free period before next ovulation
4) Symptoms cause significant distress and impairment of daily personal, professional or social commitments during the luteal phase.

Table 2: **Symptoms of PMDD**

Core Symptoms	Additional Symptoms
1. Marked affective lability (e.g., mood swings; feeling suddenly sad or tearful, or increased sensitivity to rejection)	1. Decreased interest in usual activities (e.g., work, school, friends, hobbies)
2. Marked irritability or anger or increased interpersonal conflicts	2. Difficulty in concentrating
3. Marked depressed mood, feelings of hopelessness, or self-deprecating thoughts	3. Lack of energy, easy fatigability
4. Marked anxiety, tension, and/or feelings of being keyed up or on edge	4. Marked change in appetite, food cravings
	5. Feeling overwhelmed "out of control."
	6. Changes in sleep (hypersomnia, insomnia)
	7. Physical discomforts such as breast tenderness, joint/muscle pains, headaches, bloating, weight gain

The American Psychiatric Association (APA) has included PMDD as a category under Section II (Depressive disorders) of the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V), 2013.[4] The World Health Organization (WHO) included Premenstrual Dysphoric Disorder (PMDD) to the International Statistical Classification of Diseases, Eleventh Revision (ICD-11) in May 2019. PMDD is now a legitimate medical diagnosis with its ICD code (GA34.41). PMDD is primarily listed in diseases of the genitourinary system as well as cross-listed in depressive disorders. DSM-V has clearly defined the diagnostic criteria for PMDD. (Box 1)

Investigation

Prospective recording of symptoms over two cycles using symptom diary charts is the most crucial investigation for the diagnosis of PMS/PMDD. Many PMDD specific charts are available for recording symptom. Daily Record of Severity of Problems (DRSP), Prospective Record of the Impact

Box 1. DSM-V Diagnostic Criteria[4] for PMDD

A. **Definite temporal relation** to menstrual cycle - Symptoms must be present in the last week of menstrual cycle before the onset of menses, start to improve within few days of start of menses and become minimum or absent in the week post-menses.

B&C. Minimum 5 out of 11 symptoms with at least 1 core symptom, should be present for most cycles over the past 12 months. (Table 2)

D. Symptoms to **interfere markedly** with usual activities (work, school, social, relationships).

E. Symptoms are **NOT** a mere exacerbation of an underlying condition (e.g., depression, anxiety).

F. **NOT** attributable to the physiological effects of a substance (drug abuse, medication, other treatment) or other medical condition (eg. Thyroid disorders)

G. PMDD should be confirmed by prospective daily symptom diary for two consecutive cycles.

and Severity of Menstrual Syndrome Diary (PRISM) are few commonly used charts. PreMentricS App for iPhone developed by Dr O'Brien, Consultant Obstetrics and Gynaecologist at University Hospital North Staffordshire, helps women track symptoms and record menses and treatment received[1]. Important points to consider while diagnosing PMS/PMDD are (Box 2):

Box 2. Diagnostic Approach

1) Prospective recording of symptoms over 2 cycles using DRSP7 or similar charts to document severity of symptoms, cyclical relation to menses and symptom free period before next ovulation.

2) Symptoms severe enough to affect quality of life.

3) Rule out other medical or mental disorders with similar presentation.

4) Use of DSM-V criteria to diagnose PMDD

5) Symptom diary to be completed before start of treatment to avoid masking of symptoms.

- It is vital to prospectively complete the symptom diary before starting treatment to avoid masking its presentation.
- The on/off nature of the symptoms in the luteal phase of the menstrual cycle distinguishes PMS/PMDD from other psychiatric disorders.
- It is a diagnosis of exclusion where other underlying medical and psychiatric disorders have been ruled out by detailed history and relevant investigations.
- When the diagnosis is in doubt, or comorbid conditions cloud the precise impact of the menstrual cycle on the overall clinical picture, a trial of medical ovarian suppression with a Gonadotropic Releasing Hormones (GnRH) agonist can provide useful information by temporarily eliminating ovarian hormone secretion.
- If symptoms occur after exogenous hormones, it might be worth reviewing symptoms after discontinuing hormones to exclude medication-induced mood disorders.

Management

The aim of the treatment is to achieve the greatest functional improvement possible for women with PMS/PMDD. Based on the pathophysiology of PMDD, management options help by either 1) reducing hormonal fluctuations related to the ovarian cycle or 2) reduce the effect of these fluctuations on neurotransmitters (serotonin) and GABAA receptors. (Box 3)

Discussion

It is recommended that primary care physicians involved in the care of women with PMDD build collaborative, multidisciplinary teams including mental health specialists and gynaecologists with interest in PMDD, to provide comprehensive care for these patients. In June 2019, The International Association of Premenstrual Disorders (IAPMD) highlighted the importance of building multidisciplinary treatment teams for PMDD patients and the crucial role of mental health providers with knowledge of PMDD in closely tracking patients with severe impairment or suicidal risk.

Box 3. Evidence-based Treatment Approach

1) **FIRST LINE:** (Reduce effect of hormone fluctuation on neurotransmitters)
   a. Life style modification –
      i. Complex carbohydrate diet during luteal phase
      ii. Aerobic exercise, yoga, meditation
      iii. Exposure to sunlight
      iv. Stop smoking/ alcohol
   b. Cognitive Behavioural Therapy (CBT)
   c. Neuromodulators [Selective Serotonin Reuptake Inhibitor (SSRI)/ Selective Nor-epinephrine Reuptake Inhibitor (SNRI)][5] – (BOX 4)
      i. Continuous, or
      ii. Luteal phase

2) **SECOND LINE**:
   a. Combined Oral Contraceptive Pills (COCP) – (Reduce fluctuations in hormone level)
   For women not planning pregnancy
      i. Combined oral contraceptive pills in continuous/ tricyclic pattern Levonorgestrol (LNG)90mcg/ Ethinyl estradiol 20mcg continuously for 3-4 months without a break
      ii. Short hormone free interval 24/4 regimen of drospirenone 3mg and ethinyl estradiol 20 mcg.[6] (Note: increased risk of venous thromboembolism (VTE) with drosperinone containing COCPs)
   b. Combination therapy with SSRIs and COCPs

3) **THIRD LINE:** (Reduce fluctuations in hormone level)
   a. GnRH analogues +/- add-back Hormone replacement therapy (HRT)[7] – GnRH agonists (monthly or 3 monthly injections) +/- add-back HRT (estrogen patches in the dose of 50-75 micrograms with micronized progesterone tablets 100 mg daily; or tibolone 2.5mg daily).

4) **FOURTH LINE:** (Reduce fluctuations in hormone level)
Total hysterectomy + Bilateral Salpingo-Oophorectomy +/- HRT – in refractory cases not responding to medical management.

NOVEL THERAPIES (Currently under research)

5-α reductase inhibitor (Dutasteride)- dose 2.5mg daily (Reduce luteal phase increase in allopregnanolone)[8]

Iso-allepregnanolone (UC1010) – Sepranolone (GABAA modulating steroid antagonist inhibits allopregnanolone action)[9]

Vitex Agnus Castus (VAC) (Balances female sex hormones through its phytochemicals)[10]

Future

Extensive research over two decades led to the inclusion of PMDD as a diagnostic entity in DSM-V and in ICD-11. To maintain uniformity of diagnosis, DSM-V has laid down strict diagnostic criteria, promoting accurate data collection for future research studies on the treatment needs and delivery of services for women with premenstrual dysphoric disorder. The benefits of including premenstrual dysphoric disorder in DSM-V will be significant. It will boost not only research and medical care but also the integrity of women who experience considerable suffering every month.[11] A clear and concise description will ensure that clinicians, patients, families, and researchers have a common language to communicate about the diagnosis and increase its legitimacy. It is high time we refrain from using the term 'just PMS' for women having devastating PMDD symptoms. Further research may help to reduce the need for medical and surgical menopause for this incapacitating condition.

Take home message

1) PMDD is a severe form of PMS and is a legitimate diagnosis.
2) Prospective symptom recording provides objectivity to the diagnosis.
3) Consider multidisciplinary care for patients with PMDD, including gynaecologists and psychiatrists with special interest in the condition.

Additional source of information: **NICE CKS** has a recently updated guidance on the diagnosis and management of women with Premenstrual Syndrome, for the target audience of healthcare professionals working within the NHS in the UK and providing first contact or primary healthcare.

Box 4. Selective Serotonin Reuptake Inhibitor (SSRI)/ Selective Nor-epinephrine Reuptake Inhibitor (SNRI) (Off-label use)

Regimens - 1) Continuous
2) Luteal phase (Day 15-28)

Doses - Fluoxetine 20 mg a day / Sertraline 50 mg to 100 mg a day / Citalopram 20 mg a day / Escitalopram 20 mg a day / Paroxetine 20 mg a day

Side effects - Nausea, insomnia, somnolence, fatigue, reduced libido

How to discontinue treatment –
Luteal phase regimen – discontinue at any time.
Continuous regimen – Taper dose over a period of time to avoid withdrawal symptoms

References

1. Green LJ, O'Brien PM, Panay N, Craig M. on behalf of the Royal College of Obstetricians and Gynaecologists. Management of premenstrual syndrome. BJOG. 2017;124:e73-105.
2. Schmidt PJ, Martinez PE, Nieman LK, et al. Premenstrual dysphoric disorder symptoms following ovarian suppression: triggered by change in ovarian steroid levels but not continuous stable levels. American Journal of Psychiatry. 2017 Oct 1;174(10):980-9.
3. Timby E, Bäckström T, Nyberg S, et al. Women with premenstrual dysphoric disorder have altered sensitivity to allopregnanolone over the menstrual cycle compared to controls–a pilot study. Psychopharmacology. 2016 Jun 1;233(11):2109-17.
4. Edition F. Diagnostic and statistical manual of mental disorders. Am Psychiatric Assoc. 2013;21.
5. Marjoribanks J, Brown J, O'Brien PM, et al. Selective serotonin reuptake inhibitors for premenstrual syndrome. Cochrane Database of Systematic Reviews. 2013(6).
6. Marr J, Niknian M, Shulman LP,et al. Premenstrual dysphoric disorder symptom cluster improvement by cycle with the combined oral contraceptive ethinylestradiol 20 mcg plus drospirenone 3 mg administered in a 24/4 regimen. Contraception. 2011 Jul 1;84(1):81-6.
7. Wyatt KM, Dimmock PW, Ismail KM,et al. The effectiveness of GnRHa with and without 'add-back'therapy in treating premenstrual syndrome: a meta analysis. BJOG: An International Journal of Obstetrics & Gynaecology. 2004 Jun;111(6):585-93.
8. Martinez PE, Rubinow DR, Nieman LK, et al. 5 α-Reductase Inhibition Prevents the Luteal Phase Increase in Plasma Allopregnanolone Levels and Mitigates Symptoms in Women with Premenstrual Dysphoric Disorder. Neuropsychopharmacology. 2016 Mar;41(4):1093-102.
9. Bixo M, Ekberg K, Poromaa IS, et al. Treatment of premenstrual dysphoric disorder with the GABAA receptor modulating steroid antagonist Sepranolone (UC1010)–A randomized controlled trial. Psychoneuroendocrinology. 2017 Jun 1;80:46-55.
10. Verkaik S, Kamperman AM, van Westrhenen R, et al. The treatment of premenstrual syndrome with preparations of Vitex agnus castus: a systematic review and meta-analysis. American journal of obstetrics and gynecology. 2017 Aug 1;217(2):150-66.
11. Epperson CN, Steiner M, Hartlage SA,et al. Premenstrual dysphoric disorder: evidence for a new category for DSM-5. American Journal of Psychiatry. 2012 May;169(5):465-75.

Post Covid-19 Cancer Care, Education and Leadership

4th National BIDA Oncology Conference (Virtual)

Saturday 19 June 2021 – Report

Compiled by **Dr Nisha Thambuchetty**

BIDA's National Oncology Conference, held once every two years at the Christie NHS Foundation Trust, was held virtually on 19th June this year. There were 244 registrations and 126 attendees together with close to 40 panellists (including guest speakers). There were general practitioners, consultants, medical trainees and medical students, who attended this captivating conference, which entailed vivid presentations from various esteemed colleagues in the field of cancer care, research and education. During these challenging times with the Covid-19 pandemic, the conference aptly catered to its audience, under the broad heading of *"Post Covid-19 Cancer Care, Education and Leadership"*

The conference started with the introduction and welcome address from BIDA's National Chairman, **Dr Chandra Kanneganti**, who is a general practitioner and the current Mayor of Stoke-on-Trent.

The first session covered key messages in common cancers. **Mr Thomas Thornber**, Director of Strategy at the Christie Hospital talked about the benefits of the Integrated cancer system in the Greater Manchester region. Advances in skin cancer and immunotherapy were aptly described by **Dr K Gajanan** and **Mr Avinash Gupta**. We gained considerable knowledge in advances and screening and prevention of ovarian and cervical cancer from **Mr Sachin Maiti**. **Mr Chelliah R Selvasekar** outlined assessments and investigations in the early recognition of colorectal cancer. This session was very informative on the modalities available in the screening, diagnosis of common cancers and the implication Covid has had on the cancer system.

The second session continued the theme by discussing cancer management during the pandemic. **Dr Shikha Pitalia**, Director of SSP Health, explained the General Practitioner's perspective. She highlighted the use of digital innovations that were successful in managing patients during the pandemic. **Professor Chris Harrison**, Executive Medical Director of the Christie Foundation NHS Trust presented the regional perspective of the impact of cancer care in Greater Manchester. **Mr Hassan Malik**, President of BASO-ACS (British Association of Surgical Oncology – The Association for Cancer Surgery) discussed the national implications of Covid on cancer care.

The third session covered the impact of Covid on the education and professional development of trainees across the world. **Mr Pala Rajesh**, Vice-President of The Royal College of Surgeons of Edinburgh, described the challenges faced in continuing the high standard of training in the United Kingdom. **Prof Pawindra Lal**, Director of National Board of Examinations in India, further discussed this in depth on how the system in India faced and adjusted its curriculum and examinations. The changes to how examinations were conducted and the challenges overcome across the world were remarkable. **Prof Raghu Ram Pillarisetti** presented a fascinating account of how his innovative ideas have affected and changed Breast Cancer Healthcare in India.

The oral presentations and posters that were delivered by the trainees and medical students were excellent and interesting. In total there were 11 presentations. The best oral presentation was won by **Dr. Nisha Thambuchetty**, who discussed the innovative use of oesophageal stents in stenosis of a stoma. The best poster was won by **Dr Samyak Verma** who presented on the "Technological developments in minimally invasive spine surgery for metastatic extradural spinal tumours".

The last session covered innovations in the diagnosis of malignancies and women in leadership. **Miss Sadaf Jafferbhoy**, a Consultant Oncoplastic breast Surgeon and **Prof Geeta Menon**, Lead Dean for Cancer and Diagnostics at Health Education England discussed the changes in cancer diagnostics. It was interesting to note the innovations in detection of colorectal malignancies, which have shown promising results. **Prof Maria-Paz Weisshaar** from the University of Applied Sciences of Bonn-Rhein Seig, Germany enlightened us with her talk on "ColoAlert – a next generation of colon cancer prevention test".

This meeting was a grand success due to the dedication and support of the entire organising committee and the platform for this virtual conference was very professional. BIDA wishes to thank the sponsors, **Quilter Financial Advisors**, **Pall Mall Medical** and **ICICI Bank** for their supported. We would also like to thank all the other organisations like **APPNE**, **BAPIO**, **BJMA**, **APPS UK**, **BASO**, **CESOP** and **MANSAG** for their constant support and encouragement. Finally, we would like to thank the organizing committee who worked collaboratively in ensuring the success of this meeting.

Hosted by

Quilter Financial Advisers · ICICI Bank United Kingdom · Pall Mall all your healthcare needs

APPNE ONE VOICE, ONE COMMUNITY · BAPIO · BJMA · APPS UK · Centre of Excellence in Safety for Older People CESOP Safety Compassion Dignity · MANSAG MEDICAL ASSOCIATION OF NIGERIANS ACROSS GREAT BRITAIN

Stoma Stenosis

– Surgery is not always the Answer!

Dr Nisha Thambuchetty Clinical Fellow, Department of Surgery, The Christie NHS Foundation Trust, Manchester *(Pictured)*
Dr Philip Borg Consultant Radiologist, The Christie NHS Foundation Trust, Manchester
Owen Dickinson Nurse Consultant in Endoscopy and Interventional Radiology, The Rotherham NHS Foundation Trust
Mr C R Selvasekar Consultant Colorectal Surgeon, The Christie NHS Foundation Trust, Manchester
Dr Hans-Ullrich Laasch Consultant Radiologist, The Christie NHS Foundation Trust, Manchester

BIDA NOC First-Prize-Winning Podium Presentation

Introduction

Stenosis of a stoma is a relatively common complication after stoma construction.[1] The treatment options usually start with conservative measures like change in diet and periodic dilatation using Hegars dilators. If the stenosis is permanent, then the only definitive treatment option is refashioning the stoma. Multiple methods to manage stenosis of a stoma have been tried in those who are poor surgical candidates, although none of these have been well established. For those patients with stenosis at the levelof the skin, these include triangular-section stenoplasty, Extracorporeal excision with a circular stapler and plastic surgery techniques like V-V or V-W plasty techniques.[2-4] A few reports have been published on the use of self-expanding metal stents (SEMS) in those with malignant obstruction of a stoma. [5-7] We present a case of a patient with stenosis of an end ileostomy at the level of the fascial sheath, where further surgery would have potentially led to short bowel syndrome and worsened her quality of life. A self-expanding covered removable oesophageal stent was used to treat the stenosis of her stoma successfully. Our aim is to update colleagues to consider other options like these to either temporise a critical situation or to potentially resolve the stenosis.

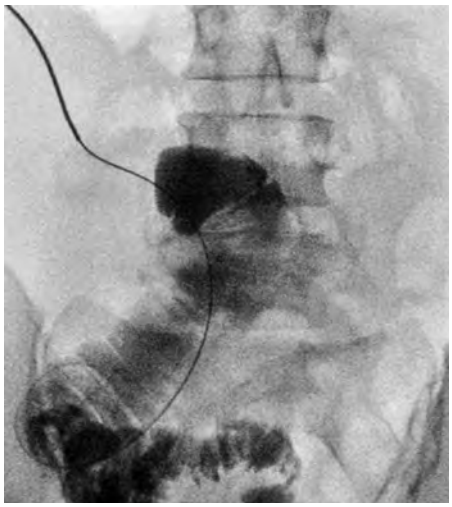
Case Report

A 37 year old lady, with no comorbidities or significant past or family history, underwent a right hemicolectomy for a moderately differentiated adenocarcinoma of the appendix, with a mucinous component (pT4 N0 M0). She then went on to have adjuvant chemotherapy. During her surveillance, imaging showed omental disease, uterine cavity deposits and a right lung nodule.

She was referred to a National Peritoneal Oncology Centre in the United Kingdom where she was discussed at a Multi-Disciplinary Team meeting for possible curative interventions keeping in mind her age and pathology. She underwent a Cytoreductive surgery with Heated Intra-peritoneal Chemotherapy (HIPEC) on the 1st of February 2021 where unfortunately extensive deposits were noted in the omentum, small bowel mesentery and along the peritoneum of both paracolic gutters, both domes of diaphragm and pelvic peritoneum. Disease recurrence was also noted over the ileocolic anastomosis with multiple deposits over the sigmoid, rectum and with surface deposits over the liver. The procedure therefore included a greater & lesser omentectomy, with extensive peritoneal stripping, total abdominal hysterectomy and bilateral salpingoophorectomy with a subtotal colectomy and end ileostomy. Mitomycin heated intraperitoneal chemotherapy was administered with a closed technique.

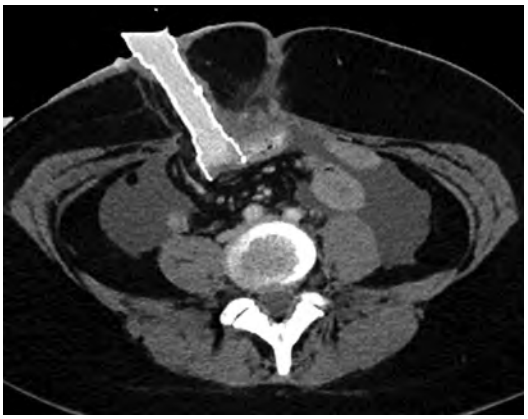
She was slow to recover post operatively due to features of bowel obstruction. A computed tomography (CT) scan revealed that the obstruction was due to stenosis of the stoma at the level of the rectus sheath. (Figure 1) Avoiding further surgery was desirable, due to the fact that she required extensive resection and this would potentially lead to short bowel syndrome, making her dependent on parenteral nutrition.

Above: Figure 1: Axial CT image showing the collapsed track across the abdominal wall with dilated distal small bowel.



Right: Figure 2: Fluoroscopic image showing the catheter and guide wire that have been passed through the stoma into the dilated bowel.

Multiple attempts to dilate her stoma using a Foley catheter were made which led to brisk bleeding but no significant drainage of bowel content. This led to a discussion with the Interventional Radiology team where it was decided to dilate the stoma with a self-expanding covered, removable oesophageal stent. The stent chosen was a 16x90mm "Egis" stent, supplied by the BVM Medical Group, Hinckley, UK. Fluoroscopic examination of the stoma using catheter and guide wire, showed dilated small bowel loops just proximal to the level of the rectus sheath. (Figure 2) During stent insertion under fluoroscopic guidance, brisk bleeding occurred immediately on deflation of the Foley catheter. Once the stent was deployed, this resulted in tamponade of the haemorrhage as well as immediate bowel decompression. (Figure 3) A post procedure CT scan showed a well-expanded stent bridging the track through the abdominal wall and decompressed bowel proximal to the stent, despite the angulation at the stent entrance. (Figure 4)



Above: Figure3: Fluoroscopic image showing the deployed stent with good immediate expansion and instant decompression of small bowel

Above right: Figure 4: Axial CT image showing the adequate stent length bridging across the rectus sheath with decompressed bowel proximal to the stent, despite angulation at the stent entrance.

The stent was kept in situ for 2 weeks and the patient recovered with a reasonable stoma output and was tolerating a low residue diet in a week. Oesophageal stents are designed for endoscopic stent removal, but in our patient endoscopy was inappropriate. Simple extraction was not deemed ideal because of the risk of causing further severe haemorrhage. Stent removal was therefore done by capturing the proximal purse string with a rat-toothed forceps and the stent re-sheathed by advance of a length of suction tubing. (Figure 5)

Figure 5: The extracted oesophageal stent with the proximal purse string visible that was captured with a rat-toothed forceps and the stent partially re-sheathed by advance of a length of suction tubing.

Once the stent was removed, the stoma continued to work well. Currently she is having adjuvant chemotherapy and being followed up regularly, not having needed any further intervention.

Discussion

The most common cause for the construction of a stoma in the United Kingdom is diverticular disease and inflammatory bowel disease. Other common conditions include malignant colonic lesions, trauma and fistulae.[8] The reported incidence of stoma related complications is variable; a systematic review of randomised control trials demonstrated a wide range in incidence between 2.9 to 81.1%.[9] Stenosis of a stoma is considered a late complication and usually arises around one month post-operatively.[1] Surgery is the traditional approach to resolve this; however, there is limited data available regarding the options for managing patients who are poor surgical candidates. Among the limited reports available in palliative patients with malignant obstruction of a colostomy, covered or uncovered oesophageal stents have been used preferentially due to their variety in sizes.[5-7] The 2021 update from the European Society of Gastrointestinal Endoscopy (ESGE) has laid out recommendations for the uses of oesophageal stents and the benefits of using a fully covered oesophageal stent is various benign and malignant pathologies of the oesophagus.[10] However there are only a few reports on the expanded use of these stents such as in our setting.

Conclusion

In challenging situations, the role of Multi-Disciplinary discussions can lead to innovative approaches that avoid the risks associated with surgery and potentially preserve quality of life.

Statement of Ethics:

Verbal consent was given by the patient. This study did not require approval by the appropriate ethics committee.

Disclosure Statement:

Mr C R Selvasekar is a member of the editorial committee of the British International Doctor's Association (BIDA) Journal. The other authors do not have any conflicts of interest.

No funding was provided for this study.

References:

1. Bafford AC, Irani JL. Management and complications of stomas. Surgical Clinics. 2013Feb1;93(1):145-66.
2. Gómez GG. Outpatient treatment for colostomy stenosis; report of 3 cases. International Journal of Surgery Case Reports. 2021Aug 8:106292.
3. Skokowski J, Bobowicz M, Kalinowska A. Extracorporeal staple technique: an alternative approach to the treatment of critical colostomy stenosis. Videosurgery and Other Miniinvasive Techniques. 2015 Jul;10(2):316.
4. Beraldo S, Titley G, Allan A. Use of W-plasty in stenotic stoma: a new solution for an old problem. Colorectal Disease. 2006Oct;8(8):715-6.
5. Wi JO, Shin SJ, Yoo JH et al. Insertion of self expandable metal stent for malignant stomal obstruction in a patient with advanced colon cancer. Clinical endoscopy. 2012Nov;45(4):448.
6. Kim WH, Kwon CI, Kim JW et al. Insertion of a self-expanding metal stent for a stomal stenosis. Endoscopy. 2012;44(S 02):E143-4.
7. Van Gils NA, Cornelissen JG, Tan AC. A metal stent in a colostomy obstruction. GE-Portuguese Journal of Gastroenterology. 2018;25(4):214-5.
8. Duchesne JC, Wang YZ, Weintraub SL et al. Stoma complications: A multivariate analysis/discussion. The American Surgeon. 2002Nov1;68(11):961.
9. Malik TA, Lee MJ, Harikrishnan AB. The incidence of stoma related morbidity–a systematic review of randomised controlled trials. The Annals of The Royal College of Surgeons of England. 2018Jul;100(7):501-8.
10. Gralnek IM, Stanley AJ, Morris AJ et al. Endoscopic diagnosis and management of nonvariceal upper gastrointestinal hemorrhage (NVUGIH): European Society of Gastrointestinal Endoscopy (ESGE) Guideline–Update 2021. Endoscopy. 2021Mar;53(03):300-32.

Technological developments in minimally invasive spine surgery for metastatic extradural spinal tumours

Samyak Verma School of Medicine and Dentistry, University of Aberdeen, Aberdeen, Scotland.
Pragnesh Bhatt Department of Neurosurgery, Aberdeen Royal infirmary, Aberdeen, Scotland.

BIDA NOC First-Prize-Winning Poster Presentation

Background

- Primary aim of spinal surgery for metastatic tumour is palliative to relive chronic back pain and prevent complications like spinal cord compression and pathological fractures [1].
- Minimally invasive spine surgery (MISS) has shown several benefits over open spinal surgery (OSS) such as the reduction in operative blood loss, fewer CSF leaks and reduced postoperative pain [2].

Tubular Retractors

- The use of tubular retractors along with the Wiltse paraspinal approach allows muscles to be split along muscular planes, rather than needing extensive muscle dissection [3].
- Expandable retractors are adjustable to provide a wider surgical view as needed during the surgery [4].
- The use of retractors conserves more of the patient anatomy decreasing size of incisions and reduces muscle injury, while achieving similar tumour decompression as open surgery [3].

Spinal Stabilisation

- Vertebroplasty and kyphoplasty involves the use of compression resistant bone cement injected into the vertebral body to reduce compression fractures [5].
- Percutaneous pedicle screw fixation secures the vertebral body into a fixed position with screw-rod construct to provide better stabilisation that could be not achieved by vertebroplasty [5].
- The use of fenestrated screws allows the cement to surround the screw within the bone reducing the risk of screw pull-out. This leads to shorter screw constructs providing better post-operative mobility and pain relief [5].

Surgical Navigation

- Screw placement using intraoperative fluoroscopy allows images from multiple views to show the likely trajectory of the screw. This allows for precise placement of screw than free hand screw placement [6].
- However, these methods rely on surgeon's skill and experience therefore, misplacement of screws could cause neurovascular injury and need for repeated procedures [6].

Future Advancements

- Robotic assisted surgery using robotic arms allow for a 3D planned approach to be produced preoperatively that can be completely executed by the robotic arm, while still giving the surgeons ability to control [6].
- The automatic and 3D tracking technology could make surgery more accurate in excision of tumours with small margins, reduce radiation exposure and reduce risk of screw misplacement [6].
- Further improvements to endoscopes could allow for more instrumentation to be passed through them for better tissue manipulation to control bleeding, similar to laparoscopic surgery [4].

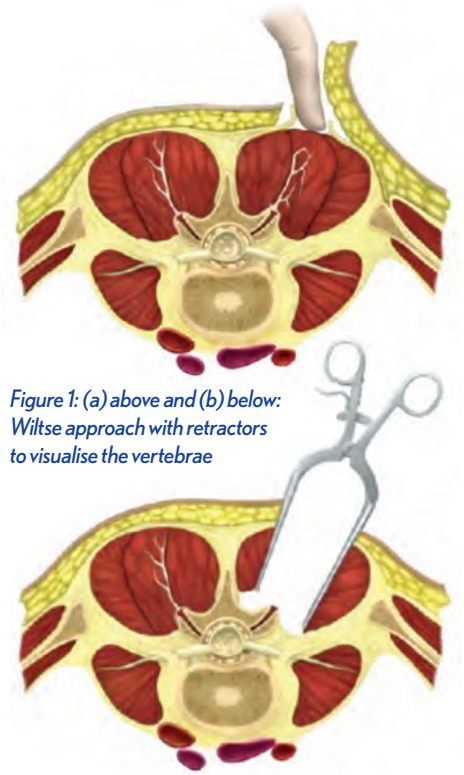


Figure 1: (a) above and (b) below: Wiltse approach with retractors to visualise the vertebrae

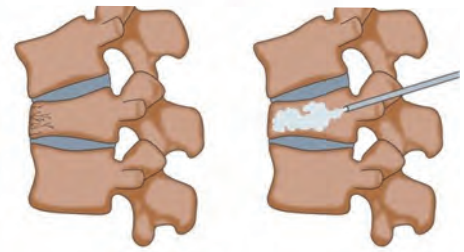


Figure 2 (above): Vertebroplasty: Vertebral fracture (left) and Cement injection (right)

Figure 3 (above): Robotic arm of Mazor X by Medtronics

References

1. Ziu E, Viswanathan V, Mesfin F. Spinal Metastasis [Internet]. Ncbi.nlm.nih.gov. 2021 [cited 2 June 2021]. Available from: https://www.ncbi.nlm.nih.gov/books/NBK441950/
2. Wong A, Lall R, Dahdaleh N, Lawton C, Smith Z, Wong R et al. Comparison of open and minimally invasive surgery for intradural-extramedullary spine tumors. Neurosurgical Focus [Internet]. 2015 [cited 2 June 2021];39(2):E11. Available from: https://thejns.org/focus/view/journals/neurosurg-focus/39/2/article-pE11.xml
3. Yoon J, Wang M. The evolution of minimally invasive spine surgery. Journal of Neurosurgery: Spine [Internet]. 2019 [cited 2 June 2021];30(2):149-158. Available from: https://thejns.org/spine/view/journals/j-neurosurg-spine/30/2/article-p149.xml
4. Barzilai O, Robin A, O'Toole J, Laufer I. Minimally Invasive Surgery Strategies. Neurosurgery Clinics of North America [Internet]. 2020 [cited 13 June 2021];31(2):201-209. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7703710/
5. Fridley J, Gokaslan Z. The evolution of surgical management for vertebral column tumors. Journal of Neurosurgery: Spine [Internet]. 2019 [cited 13 June 2021];30(4):417-423. Available from: https://thejns.org/spine/view/journals/j-neurosurg-spine/30/4/article-p417.xml
6. Galetta M, Leider J, Divi S, Goyal D, Schroeder G. Robotics in spinal surgery. Annals of Translational Medicine [Internet]. 2019 [cited 13 June 2021];7(S5):S165-S165. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6778279/

Public engagement and impact of the National Forum for Health and Wellbeing (NFHW) Covid-19 Seminar Report

Dr Rajeev Gupta MD, FRCPCH, MBA Consultant Paediatrician Barnsley and Conference Organiser NFHW.
Prof Romesh Gupta FRCP, MBA Chairman, NFHW.

The National Forum for Health and wellbeing has been established to encourage and empower members of the local community, and particularly those belonging to hard-to-reach groups, to engage with health professionals in promoting and celebrating healthy living.

The organisation has been organising public health events called 'Health Melas'. Key objectives of the Health Melas are:

- To promote the general health of visitors and improve their awareness of health-related issues by providing health education and advice in a non-threatening and friendly environment.
- To develop a range of working partnerships between local communities and health organisations including voluntary and statutory services related to health and wellbeing.
- To provide opportunities for visitors to gain a wide range of personally relevant general health related information, including signposts for future action, from approachable health professionals.
- To encourage visitors to get specific health checks carried out in a 'Health MOT'. This will include measurements of height, weight, BMI, blood pressure, blood sugar and cholesterol levels. Visitors will also be advised and counselled regarding how to reduce the risk of having heart attacks and diabetes and strokes.
- To provide, within the context of promoting a healthy life style, a platform for the social integration of the various age groups and ethnicities within the community.
- To provide a learning environment for young health care professionals and students to enhance their knowledge of various aspects of public health and to develop cross cultural communication skills.
- To provide networking opportunities in a community setting for participating health professionals

These objectives are achieved in a friendly, festival atmosphere with entertainment and activities. This allows all visitors to have a family day out to enjoy, learn and pick-up useful tips to lead a healthy, enjoyable and long life.

Health MOTs at the Health Melas are effective in identifying modifiable cardiovascular risk factors. Mela-style community health intervention is a feasible tool for accessing, screening and advising some communities at high risk of cardiovascular disease.

Since we started this screening, we have carried out the Health MOTs in 42 locations.

- Over 5,000 people tested
- Over 500 people identified with at-risk glucose levels
- Over 550 people identified with at-risk cholesterol levels
- 99 cases of previously undiagnosed diabetes or impaired glucose tolerance
- 77 cases of previously undiagnosed hypertension
- 743 GP referrals for undiagnosed risks of cardiovascular disease.

Here is the report of second virtual Public Engagement and Educational Seminar on the theme The long-term effects of the Covid 19 Pandemic which was held on 22nd May 2021. The event was initiated following the positive reception given to a first pilot seminar which focused on the effects of the pandemic on mental health. We hoped to replicate the success of our first virtual event.

The brief account below gives just a hint of the rich picture painted by the many distinguished figures who took part. Their experience and expertise came together to make the event a treasure chest for those seeking a wider view of the long-term impact of the pandemic.

The seminar was introduced by special guest **Karen Partington**, Chief Executive of Lancashire Teaching Hospitals NHS Trust. Karen spoke warmly of the partnership between the Forum and the Trust, emphasising the importance of the Forum's educational role in supporting informed patient choice and public involvement in decision making.

Professor Romesh Gupta OBE, NFHW Chair then welcomed visitors to the Seminar taking a moment to record the sadness he and the audience shared with all those who have lost loved ones in the coronavirus outbreak. He went on to introduce the Chief Guest, **Professor Calum Semple OBE**, drawing particular attention to his extensive involvement in developing a collective response to the current national crisis.

Professor Semple set the scene for the afternoon's proceedings with a clear overview of the pandemic seen from the twin perspectives of one who is an authority on severe acute respiratory infections and at the same time an expert with a deep understanding of the wider implications of infectious disease outbreaks for society. He described his first reactions as he realised that the country was moving into a period of tragedy but summing up the pandemic so far, struck a broadly optimistic note pointing to the wealth of expertise and information on the virus available in the UK and the 'coming together' of society brought about by the threat it posed.

Next to speak, NFHW Steering Group member **Dr Rajeev Gupta**, drew attention to the economic consequences of the pandemic. He explained the inevitable impact, particularly on disadvantaged groups, of paying down the 19.5 trillion dollars of global debt so far accumulated in funding responses to the pandemic.

Honoured Guest, **Professor Maggie Rae**, President of the Faculty of Public Health took the stage with a wide-ranging presentation. She focused the audience's attention on the fact that the effects of Covid 19 are not experienced equally by all groups in society and that the disease itself often acts to magnify existing disadvantages.

Subsequent contributions were equally thought provoking. First were the personal accounts of experiences gained as a victim of Long Covid. These were provided by **Pyush Patel**, **Julia Riewald**, **David Williamson**, **Dr. Ashish Chaudhry** and **Dr. Neelam Patel**. Each had a moving story to tell - all recommended as compulsory viewing for those who still deny the seriousness of the disease or refuse vaccination!

Accounts of clinical aspects of Covid-19 and its long-lasting effects together with a discussion of appropriate evidence-based treatment regimens were offered by **Dr. Mohammed Munavvar**, **Dr. Sharada Gudur** and **Dr Dominic Harrison** with **Dr Amit Taneja** providing a view from the USA. Immediate practical approaches to dealing with Covid related stress were described by psychotherapist **Jane Silver** whilst the particular effects of Covid 19 on BAME groups were highlighted by **Bayo Igoh**, BAME lead for the Federation of Small Businesses.

Many contributors referred to the effect the pressures generated by the virus outbreak have had on the health and wellbeing of colleagues responsible for patient care. **Dr Richard Jenkins** in particular, provided an account of the measures taken at Barnsley Hospital NHS Foundation Trust to ameliorate these.

Whilst there Is no doubting the serious nature of the afternoon's topic there were calmer and lighter notes to be found.

Drs. Monika and Prachur Agrawal's 'Dance Yoga' was a peaceful oasis in a busy programme and it was good to have essential Covid- 19 precautions presented in dance form by the Abhinandana Dance Academy - even better when this advice was supplemented by a lively prescription for fruit-based antioxidants from what must be our youngest active member yet! Taken together, these beautifully choreographed performances raised the hearts of the audience as dance worked its magic to provide a refreshing counterpoint to the more formal proceedings.

So how do virtual seminars fit into NFHW's future programme? At the time of writing, several days after its first airing on YouTube, the Seminar has received approaching 5,000 verified viewings and the number continues to grow, this reinforces our previous experience and must be regarded as a real success when measured against typical attendance figures of 500 - 1,000 recorded for our traditional face to face Health Melas and public seminars. In the light of experience so far, we shall certainly continue to develop our virtual presence confident that it provides a powerful complementary channel for the promotion of individual, family and community health and wellbeing and also a resource for use in the training of health professionals.

If you are interested in the subject matter of our seminar or want to evaluate the format as educational source material, you can experience the virtual seminar first-hand. The recorded proceedings of the day are available via the NFHW Website using the link **https://nfhw.org.uk/covid19-impacts**

Obituaries

BIDA pays tribute to the lost souls and offers our sincerest condolences to the family members.

Dr Yash Pal Suri

Dr Suri was born in Pindigheb, India and then moved to Darlington, where he became a consultant physician and dedicated himself to the care of the elderly at Darlington Memorial Hospital for over 20 years, establishing the town's first Dial-a-Ride service in 1989.

His boundless curiosity, creativity, sense of humour and tireless documenting remained until the very last. He will be remembered as an esteemed physician, creative artist, film maker and chronicler. Experiencing Partition, then later migration to England, he was no stranger to struggle and upheaval. He was a deeply sociable man who touched the lives of many. His legacy will live on in his family, in his published work, both medical and literary - 'From Delhi to Darlington' - and in his Super 8 films which uniquely documented the immigrant experience in the UK and in particularly the North-East through his eyes and those of his family members over a period of 40 years. The films were compiled and screened theatrically and internationally in the feature documentary 'I for India'."

Dr Yash Pal Suri, 89, died peacefully at home on May 10 surrounded by his family. He was the loving husband to Mrs Sushil Suri, father to Neeraj, Vanita and Sandhya, grandfather to Hari, Serena and Leela.

Dr Neelkanth Kaduskar

It is with great sadness we inform you that Dr Neelkanth Kaduskar MBBS, FRCA, FRCS, a former supporter and member of the ODA (now BIDA), died on Friday 02 July 2021.

After joining the staff at George Elliott Hospital, Nuneaton in the 1980's Dr Kaduskar was an active member of the ODA until his retirement in 1999. He shared with his family fond memories of social gatherings at Foleshill Road in Coventry, and quietly supported a number of fellow doctors who came to the UK to work. Many of these doctors have gone on to achieve great things. Dr Kaduskar's daughters, Nisha and Sharmila have found numerous letters of thanks from then junior doctors and house officers who sought guidance from their Dad.

Prof Kailash Chand Malhotra

Kailash Chand Malhotra was born in Shimla, India on 10 June 1948, the same year of the birth of the NHS. Following graduation in 1972, he came to England in 1974. His career took him to Manchester, where he established his general practice. He was probably the most prolific medical writer of our generation, contributing to several journals and newspapers. He was forthright in his criticism of the running of the NHS, and he is widely acknowledged as the fiercest defender of the NHS.

He was most certainly one of the 'greats' of our profession. He won many accolades, chief among them an OBE in 2011 for services to the NHS and healthcare, he was named the 11th most influential GP by Pulse (2014), top 50 HSJ BME pioneers (2014), he was awarded the Labour Party National Award by Ed Miliband, for lifetime services to the NHS (2012), and the Fellowship of the Royal College of GPs.

Kailash touched the heart and imagination of hundreds of thousands of people. He passed away on 26th July. He will indisputably be missed.

Dr Satya Narayan Prasad

Having graduated from Patna Medical School, Dr Satya Narayan Prasad, like many of his contemporaries, came to the UK in the early 1970s to prosper and, although not his initial intent, remained here in the UK for the rest of his life having served his community as a GP for over 45 years.

He came from a humble background, but the wealth was seen in his passion for life. He was, as so many have reverberated, the larger-than-life person and not just the life of the party. He welcomed all, friends, strangers, and foe with open arms near and far.

After over a year-long battle with a very rare form of cancer he succumbed under the most trying of circumstances during a surreal time where Covid dominated our lives.

Dr Satya Narayan Prasad passed away on the 4th of May 2021 leaving his wife, Putul Prasad, after 51 years of marriage, his 4 children and 7 grandchildren. He will be missed dearly. This is reflected in her daughter Rupa's words, *"Some may think it is cliche and some bias, but I truly speak when I say daddy was the inspirational and the greatest blessing was that he was our father."*

bida President's Cup Cricket Tournament 2021

Dr Raghu Hegde National Sports Coordinator, BIDA

After an exciting climax to The 2021 BIDA President's Cup Cricket Tournament, heartiest congratulations to Wigan Division who took full advantage of playing 'at home' by reclaiming their title from the defending champions, North East Division, in a match that saw the home team triumph by eight wickets. Wigan Divison have now won this tournament for the fourth time in six years.

Left: The victorious Wigan Division team with Dr Alka Trivedi.

Below: Family, friends and pets turned out to support their team.

Right: BIDA National President Dr. Birendra Sinha presents the trophy to the winning captain.

Quilter Financial Advisers

Do you want financial advice that you can trust?

Then book a free initial financial consultation now

Quilter Financial Advisers is a trusted partner of BIDA and can help you to secure your financial future.

We have a specialist team of advisers who are dedicated to providing a full range of financial planning, tailored specifically to medical professionals.

We can help you with:

- Savings and investments planning
- Tax efficient investing
- Planning for school fees
- Retirement planning
- Protecting your loved ones
- Protecting your property
- Inheritance tax planning
- Mortgage solutions
- Advice about your NHS pension

To learn more about how we can help please contact us using the details below to book your FREE initial financial consultation. Please quote BIDAad2109 in your email or when speaking to the team on the phone.

T. *0333 015 3521*
E.*bida@quilter.com*

quilterfinancialadvisers.co.uk

Your home may be repossessed if you do not keep up repayments on your mortgage.
The value of pensions and investments can fall as well as rise and you can get back less than you invested.

Quilter21_0169/July 2021