Global spotlights

The ongoing impact of COVID-19 on cardiovascular care

Last Spring, CardioPulse spoke to leading cardiologists from four continents to assess their views of the COVID-19 crisis and its impact on the fight against cardiovascular disease. One year on, we return to them for their updated assessment and thoughts.

Mark Nicholls*

MNmedia, Norfolk, UK

By the Spring of 2020, COVID-19 had gripped the planet leading to lockdowns, millions of cases and mounting deaths. The cardiology community was seriously concerned; heart patients were staying away from hospitals in fear of catching COVID-19, not seeking timely help for severe conditions, and funding for research into cardiovascular disease was under threat with resources diverted to tackling the pandemic.

Now, while vaccinations are being rolled out, many of those concerns have proven true and the impact on cardiology and on cardiovascular disease is becoming clearer. While patients are returning, numerous appointments have been missed, waiting lists have grown, and there is the unknown long-term legacy of COVID-19 on heart patients.

While China reported a return to near normal cardiovascular services, large parts of Europe remained in lockdown with cardiac surgery and interventions delayed with waiting lists growing. The European Association for Cardio-Thoracic Surgery unveiled plans to assess the scale of that in Europe following findings for the United States presented at the 57th Annual Meeting of the Society of Thoracic Surgeons showing that COVID-19 resulted in a 53% decrease nationwide in all adult cardiac surgery. In addition, a systematic review of 27 studies worldwide, published in the European Heart Journal in January, evaluated the impact of the pandemic on the care for patients with acute cardiovascular disease, showing hospital admissions down by 40–50% for acute coronary syndrome emergencies. Figures from the British Heart Foundation found that cardiac surgeries or interventions were down by 27%; and in the USA, evidence emerged of a deterioration in cardiovascular risk factor control, along with ‘a marked disruption’ of cardiovascular trials. Currently, the World Heart Federation (WHF)—the umbrella organization of >200 cardiac societies and foundations—is working on a large global registry on COVID and cardiovascular disease (WHF COVID-19 Global Cardiovascular Disease Study), to better understand COVID-19 and plan for future pandemics.

Against this backdrop as we head towards the middle of 2021, four eminent cardiologists from Africa, America, Asia, and Europe offer their updated thoughts on the challenges of the COVID-19 crisis and their longer-term concerns on the fight against cardiovascular disease.

AFRICA:
Karen Sliwa is a Director of the Cape Heart Institute and a senior clinical cardiologist at Groote Schuur Hospital, Cape Town, South Africa.

With cardiologists increasingly aware that people with co-morbidities have an increased risk of more severe COVID-19 infections, Prof. Sliwa hopes that more people will seek earlier access to healthcare and there will be improved medication adherence.

‘About one third of hypertensive patients do not use newly-prescribed medication and almost half of the patients prescribed an anti-hypertensive medication become non-adherent within 12 months’, she said. ‘I hope the pandemic convinces patients that adherence to cardiovascular medication is of the utmost importance’.

Her concerns about COVID-19 being a long-term health challenge that ‘we need to live with’ in the same was as malaria, tuberculosis, HIV, hepatitis, and other illnesses have proved to be the case, but she added: ‘The main difference is that this time, it is a condition that affects all of us’.

Since February, South Africa seen a decrease in the second wave of the SARS-CoV-2 epidemic and witnessed vaccine rollout, particularly for healthcare workers. But she remains worried that many patients still either do not seek health care early enough due to the fear of...
getting COVID-19 or cannot easily access healthcare, both of which contribute to excess mortality.

‘It will take us a long time to catch up on seeing all patients at the outpatient clinics, which have now long waiting lists, and reducing the long national waiting list for cardiothoracic surgery’, she said.

As past-president of the WHF, Prof. Sliwa is working as a Principal Investigator with the WHF COVID-19 Global Cardiovascular Disease Study with Prof. Pablo Perel (London School of Hygiene & Tropical Medicine) and Prof. Dorairaj Prabhakaran (Centre for Control of Chronic Conditions, Public Health Foundation India) to better understand COVID-19. A major concern remains on dealing with the pandemic impacting on healthcare resources needed for all other medical conditions.

**AMERICA:**

Deepak L. Bhatt is an Executive Director of Interventional Cardiovascular Programs, Brigham and Women’s Hospital Heart & Vascular Center, and Professor of Medicine, Harvard Medical School.

The COVID-19 pandemic has been a ‘major blow’ in the fight to reduce cardiovascular morbidity and mortality worldwide, including in the USA, with the negative effects to be felt for years to come, according to Prof. Bhatt.

‘In the last few months, evidence has come in that cardiovascular risk factor control has worsened, with rates of obesity, and even smoking, appearing to be climbing’, he said. ‘I had hoped greater access to telemedicine may have helped preventive efforts, but the challenges posed by the pandemic have been too great. Nevertheless, I still see great promise in telemedicine, virtual visits, remote monitoring of patients, and cardiac rehabilitation at a distance’.

Prof. Bhatt said patients continue to avoid coming to the hospital for conditions such as heart attack, stroke, and heart failure, which will ultimately lead to more downstream complications. He particularly notes that mechanical complications of myocardial infarction seem to have increased.

There are particular examples of patients he has observed. Data examined from the Mass General Brigham from early on in the COVID-19 pandemic, showed a large dip in cardiovascular hospitalizations. And while patients with cardiovascular emergencies are not quite as hesitant to come into hospital now, there are still substantial delays in patients seeking care, he observed.

There has also been a marked disruption of cardiovascular trials; however, the pandemic has provided the medical research community an opportunity to improve the conduct of clinical trials, with patient-centred improvements, which he hopes will become permanent. With Dr Prakriti Gaba, a cardiovascular medicine fellow at Brigham and Women’s Hospital, they lay out ideas to improve the efficiency of randomized clinical trials in ways that could enhance the science and ultimately improve patient care.

Prof. Bhatt concluded: ‘On the plus side, global medical and research collaborations have never been better. I hope this aspect continues after the pandemic subsides. A crisis, such as the COVID-19 pandemic, often serves as a catalyst for overdue change’.

**ASIA:**

Zhi-Cheng Jing is a Professor of Medicine and Head of the Department of Cardiology at Peking Union Medical College (PUMC) Hospital, Chinese Academy of Medical Sciences, in Beijing.

Prof. Jing feels the COVID-19 situation in China has moved from the fear and panic of 2020 and more towards normal life, albeit with small-scale fluctuations in some regions.

‘People’s fear has decreased since they have accumulated more knowledge on protective hygiene habits and more are being vaccinated’, he said, noting that care of patients with cardiovascular diseases is returning to normal levels as resources of emergency
doctors and nurses recover. The number of patients with acute and critical cardiovascular diseases is now similar to pre-pandemic levels.

During the pandemic peak in China, it took 4 h to obtain the result of a COVID-19 nucleic acid test, meaning that >80% of acute heart attack patients were quarantined in thrombolysis mode. Now, with that down to 30 min, the vast majority of patients (90%) are again going directly to the catheter lab.

‘At present, the diagnosis and treatment of suspected MI patients is very close to the pre-epidemic state’, added Prof. Jing, but he remains concerned about a long-term cardiovascular impact from COVID-19 for patients. ‘There could be further endless challenges from COVID-19 now and numerous subsequent cardiovascular events in the future’, he continued. ‘In some patients, myocardial injury will last for a long time. We still need to continue to pay attention to the occurrence of chronic inflammatory cardiomyopathy, thrombosis and heart failure in the recovered patients’.

He remains convinced that it is public education and changes to people’s health habits, rather than the medical environment, that will prove crucial in coping with COVID-19. That, he added, goes beyond hand washing, ventilation, and wearing masks, and extends to reducing sugar intake, home blood pressure monitoring, and physical exercise.

‘They are as important as wearing masks and hand washing, if not more important. These hygiene habits can greatly reduce the occurrence and consequences of cardiovascular disease, just as wearing a mask can prevent the spread of COVID-19.’

EUROPE:
Dr Sonya Babu-Narayan is an Associate Medical Director at the British Heart Foundation (BHF), Reader Imperial College London and Consultant Cardiologist at Royal Brompton Hospital.

One year on from the onset of the COVID-19 pandemic, the statistics are startling and disruption in access to cardiovascular care is alarming. Analysis of NHS statistics found 27% (119 000) fewer cardiac surgeries or interventions were performed in England compared to pre-pandemic levels, with Scotland, Wales, and Northern Ireland likely to be similarly affected. The BHF also found a 150-fold increase in people waiting more than a year in England for cardiac surgery or intervention—4273 in January 2021, compared to just 28 in February 2020.

‘Delays on this scale inevitably mean that treatment for some will be offered too late to avoid disability or death’, she said. ‘Heart surgery or catheter intervention figures are likely to be simply the tip of the iceberg, given that we know there is disruption to cardiovascular care on a scale never seen before and at every stage from referral to diagnosis to treatment’.

Other data underlined the point: April–May 2020 saw a 67% reduction in echocardiograms (87 902 compared to 274 235 the previous year), while referrals from primary care to cardiology fell from 1.1 m a month 329 000. Referrals and echocardiogram numbers are still not recovered.

‘By the end of February 2021, excess deaths from cardiovascular disease stood at more than 5500 but the true toll of the pandemic to date, accounting for those that may have gone undiagnosed or untreated, may be higher’, said Dr Babu-Narayan.

As in Europe and elsewhere, people delayed seeking medical help as data from 147 acute hospitals in England showed that by the end of May 2020 there had been 5000 fewer admissions with heart attack.5

Emergency department attendances have recovered to near pre-pandemic levels but she said that investment is needed to catch up with the ever-growing backlog of cardiovascular care and to deliver better prevention, early diagnosis, and treatment.

Dr Babu-Narayan pointed to the strength of global research in working at speed and scale to not only find treatments and vaccines for COVID-19 but also to deepen our understanding of the cardiovascular implications.

She concluded: ‘It has never been more obvious that we must support cardiovascular research. It is science that will provide ways to contain coronaviruses and it is science that will save lives from the global burden of the world’s biggest killer—cardiovascular disease’.

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