Cardio-oncology

The new clinical field you can't ignore

I recently interviewed the top experts in the world on cardiology and oncology: Dr Alexander Lyon, chair of the ESC Cardio-Oncology Council; Prof Susan Dent, president of IC-OS and Dr Trishun Singh, SA's first cardio-oncologist and president of the Cardio-Oncology Society of Southern Africa (COSOSA).

Claire Rush McMillan, editor

HERE IS WHY these two important specialties are fundamentally linked in a new clinical field.

There is a tsunami of new cancer drugs, which are curing people. However, many of these lifesaving cancer therapies are associated with an increased risk of cardiovascular toxicity. The goal is to provide the optimal cancer therapy without compromising cardiovascular health.

"Cancer is so common. If you are a cardiologist in SA, you will see cancer patients, whether you choose to or not," said Dr Singh. The FDA approved 207 cancer drugs between 2016 and 2021 in oncology and malignant hematology. While the speed of drug development is great, and we are making important advances in the treatment of many cancers, many of these drugs are associated with cardiovascular toxicity.

"Cancer drugs and radiotherapy are fantastic at curing cancer, like never before. At the diagnosis of cancer, these patients think it is a death sentence. They don't know or ignore all the other comorbidities," Dr Singh said. "We have a massive problem in SA that these patients are developing cardiac issues, and their symptoms are subtle. One must be aware and listen to the patient very carefully, as to what they are presenting with. They might say: 'I'm tired, I have palpitations, I don't know why my ankles are swelling'. This is often mistakenly attributed to their cancer."

"A lot of oncology uses a personalised approach and precision medicine. In a way, this is the same approach, to the toxicities. This doesn't mean that everyone will experience cardiac issues, but it is about identifying who is at high risk and personalising and tailoring to the high-risk group, but also reassuring the low-risk group that they are low risk," Dr Lyon added.

"My experience in SA is that the oncologists, cardiologists and haematologists may not be aware of the ESC cardio-oncology guidelines and that the very drugs that they are using to cure someone can lead to various cardiovascular problems," Dr Singh said.

Dr Lyon added that cardiac problems can lead to the cancer treatment being stopped, and the cancer progressing. "We want people to have the most effective cancer treatment, safely," he said. Another factor is that cancer treatments are extremely expensive. If treatment must be stopped because of cardiovascular (CV) issues and then started again, this contributes to the cancer cost. Heart treatments are also costly. "If you cure someone of cancer and then they go on to get heart disease from the cancer treatment that is also costly to society and the health system. Investing early in the prevention approach will save a lot of money across the board," Dr Lyon stated. "Patients of today have done their research and know about the cardiac risks, but one has to help support their concerns and anxieties about the risks, by doing an assessment," he explained.

CARDIO-ONCOLOGY'S BACKGROUND

The International Cardio-Oncology Society (IC-OS) started as a small organisation and is now 15 years old. Over the last 10 years, many countries around the world have established a national cardio-oncology programme and become associated with

IC-OS. COSOSA was formed in 2019 by Dr Trishun Singh, whose interest in cardio-oncology started almost a decade ago. "If we look at the two diseases that drive morbidity and mortality in Southern Africa, it is ischaemic heart disease and cancer," he said. He explained that the two diseases can be described as running parallel to each other, both being associated with advanced age.

"Every now and again I would get a referral from an oncologist to do a cardiac assessment on a patient if they were going to use anthracyclines or trastuzumab. This was because the package insert said there were cardiovascular effects. So, you had to 'tick the box' in checking the patient. Those were the early days of not understanding what this field was about. I wondered if anyone in SA was involved in the field, only to discover, surprisingly, that no one was involved in cardio-oncology.

"In 2019, I established COSOSA with the aim of upskilling and educating our oncologists, haemotologists, cardiologists, and primary care doctors as to what cardio-oncology is all about. This is not an easy task. People are set in their ways. This is compounded by a large number of the population (51 million people) with no medical insurance. However, people were dying, and we had to start somewhere. This was my aim in starting COSOSA."

COSOSA is affiliated to IC-OS, which has over 30 country chapters, and SA is one of them. Dr Singh encourages every doctor involved in cancer care to become members of COSOSA. It is free and is also affiliated to IC-OS.

"In doing this, they will be exposed to the literature, programmes, and meetings. You can't practice cancer care without being a member of IC-OS. It is important that at primary care level, GPs, haematologists, cardiologists, and oncologists must be members of IC-OS. They will receive all the material and education that they need.

"As cardiologists, we did not deal with cardio-oncology in our training. It is a new field that is gaining interest," Dr Singh said.

In 2025, SA will be hosting the Global Cardio-Oncology Summit, to be held in Cape Town.

THE ROLE OF THE GP

Dr Lyon explained that when a patient is diagnosed with cancer, this becomes the focus for the oncologist and patient. However, we need to think about other factors, such as cardiac health, throughout the patient's cancer journey.

The oncologist is focused on managing the cancer. However, the GP or primary care doctor has a big role to play in monitoring these patients all the way through their cancer. A lot of the cardiac symptoms can be subtle, such as fatigue and breathlessness.

According to Prof Dent, the primary care physician can help with optimisation of the underlying CV risk factors, even at the start of cancer treatment, such as blood pressure, cholesterol, and diabetes. "Oncologists don't have the time, and often the expertise, to manage these conditions. They are focused on treating the cancer, so we can't expect them to manage a patients comorbidities," she commented.

Prof Susan Dent, president of IC-OS, Dr Trishun Singh, SA's first cardio oncologist and president of the Cardio-Oncology Society of Southern Africa (COSOSA), and Dr Alexander Lyon, chair of the ESC Cardio-Oncology

Dr Singh explained that patients go to their primary doctor first. The primary care doctor needs to be educated as to what issues may occur in cancer treatment. "They have a huge role in assessing patients before they even start their treatment, during treatment and after treatment," he emphasised.

A MINDSET SHIFT

According to Prof Dent, there needs to be a shift among oncologists. They have traditionally been reactive, waiting until a patient with cancer develops heart failure or severe hypertension, and then consult a cardiologist. This mindset needs to shift to: we are exposing a patient with underlying risk cardiovascular risk factors (eg hypertension) to a cardiotoxic cancer therapy – we should be thinking about assessing an individual's risk of developing cardiovascular toxicity prior to starting cancer treatment .

"Medicine tends to have a siloed approach to care. We need to move from a disease-centric approach to a person-centric approach. This involves communication, collaboration and working together as teams (oncologist, cardiologist, primary care provider, nurses) to improve the health of an individual. This is good in theory, but implementation can be challenging when systems are set up to be in silos," she said.

Prof Dent explained that there are now many cardio-oncology clinics in different parts of the world, however they tend to be in large academic, tertiary care centres. "One of the challenges we face is how can we provide cardio-oncology care in the community, where the majority of cancer care is delivered. The expanding field of cardio-oncology will need to focus on bringing care to the patient and not the patient to the care," she said.

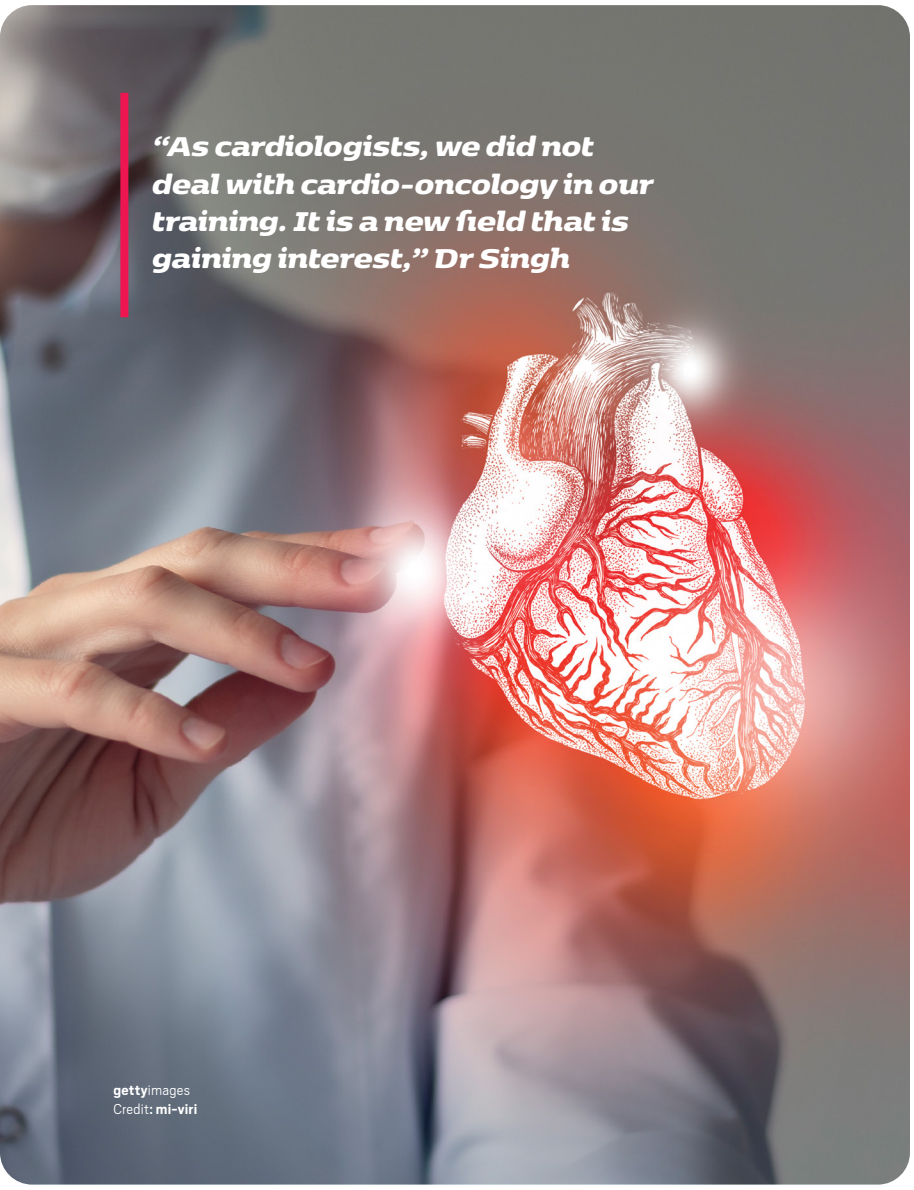
A WARNING

"If people are diagnosed with cancer, they will google. What will come up is cardio-oncology, and cardiac assessment. I am finding this in my practice already. I would hazard a guess that very soon, when patients do develop serious CV issues and they succumb to it, the families are going to ask why they were not referred for a CV assessment.

CONCLUSION

"We have a dilemma. If you are going to be using drugs that cause CV problems, you need to be aware of it. You also need to make your patients aware of it and give them the right kind of advice. You need to manage the patient from the outset before you start treatment. This is what is lacking. I am seeing patients with advanced CV problems which can be irreversible, if not picked up early. So, the patient survives the cancer but succumbs to CV problems. This can be mitigated with appropriate therapy if the issue is picked up early and action is taken," Dr Singh said.

Most cardiac, oncology and haematology societies throughout the world have supported and recognised this new field, and so should we. MC



RESOURCES:
2022 ESC Guidelines on Cardio-Oncology: https://doi.org/10.1093/eurheartj/ehac244
IC-OC website: https://ic-os.org/new/
COSOSA website: https://cososa.org.za