



Heart Murmurs

October 2020

Cardiac Athletic Society Edmonton - Contacts

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Heart Murmurs is the newsletter of CASE published in February, March, April, May, September, October, November and December each year. Suggested articles can be submitted to Barry Clark at kbclark1@telus.net Back issues of the newsletter are posted on the CASE website at: <http://www.edmontoncase.ca>

If you wish to unsubscribe from this newsletter, please e-mail stuart_e@telus.net with a subject line 'unsubscribe'.

Cardiac Athletic Society Edmonton -Board

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Support for CASE

As a recognized charitable institution, CASE makes a significant difference to people interested in maintaining their heart health. If you make a financial gift, either as a direct contribution, or in the memory of a member who has passed, we will issue a tax receipt.

MESSAGE FROM THE PRESIDENT

We have bided our time over the summer hoping that Covid-19 would somehow be under control by the fall so we could resume life as usual. In the interim, we have kept active either on our own or through Zoom classes conducted by Lynn. It has become increasingly clear that life as we knew it will not return to normal anytime soon. CASE has taken steps to put ensure that an exercise program will continue this fall.

However, taking care of our physical health is only a part of taking care of our overall well being. We must not forget to take care of our mental health as well. This will become increasingly challenging as deteriorating weather conditions and increased Covid-19 restrictions will combine to limit our ability to get together socially.

Already we have lost two important social events this summer, the Ed Abel Golf Classic, and the BBQ. Also, we will be losing our biggest social event of the year, our Christmas Party. As a group, CASE must come up with other ways to socially interact.

We all have a responsibility to look out for each other and one of the ways we can do this is to set aside some time to contact other members of CASE by phone or email just to check on them and to tell them you are thinking about them.

This may seem like an insignificant action on your part. However, for someone who feels increasingly isolated it could very well make their day. Lets all do whatever we can to ensure that all CASE members feel included.

How can you go about contacting other members when there is no public membership list? The reason we do not publish a membership list is to protect the privacy of our members. Our assumption has been that most CASE members would be willing to share their contact information with other CASE members on request, so we are proposing to make this list available to all members. However, we will modify the list to exclude anyone who has concerns about sharing their contact details.

If you would like a copy of the CASE membership list or would like to be excluded from it, please contact your President garywmduguay@gmail.com

Covid-19 has prevented us from seeing each other face to face on a regular basis so we are not always on top of how our members are doing health wise. If you become aware that a CASE member has become sick or has been injured please contact either the President Gary Duguay () garywmduguay@gmail.com or our Hearts and Flowers Coordinator Tessie Cruz (Tessie.vparedes@gmail.com)

EXERCISE UPDATE

Your CASE Board has been trying to organize replacement exercise activities for as many members as possible while we await the resumption of Terwillegar Recreation Centre programs such as ours.

Our online Eccentrics program, led by Lynn, has been underway since the beginning of May. We plan to continue this program with slight modifications to include a cardio component in addition to the Essentrics class. An update from Gary Duguay is in your email inbox.

In addition, we are keeping an eye out for the possibility of an in-person Healthy at Heart session at a facility other than Terwillegar as a short-term measure. Members will be updated by email.

Our two usual outdoor spring and summer activities have continued this year with a few COVID modifications:



- Five CASE WALKS have taken place with #6 in the planning stages. Eleven members participated in the Sept. 18th walk at Hawrelak Park.



- The golf season opened on May 27 – just a bit late because of Covid-19. We had 16 active players and averaged about 8 out weekly. Although the Ed Abel Tournament had to be cancelled because of Covid-19 rules, the group tournament went ahead because we had so few participants. Winners this year were Bill and Wendy Boyd.

By Wayne Jackson and Wayne Saunders.

COVID – 19 IMPACT ON THE HEART

Since the coronavirus pandemic first began, evidence has emerged showing that COVID-19 can damage more than the lungs. The disease caused by the novel coronavirus can harm other organs in the body including the heart. Now two separate studies, published in the journal JAMA Cardiology on Monday, provide more insight into how COVID-19 may have a prolonged impact on heart health in those who have recovered from illness and may have caused cardiac infection in those who died.

"We've understood for a few months now that COVID-19 is not only a respiratory infection but a multi-system infection," said cardiologist Dr. Goldberg, medical director of the NYU Women's Heart Program and senior adviser for women's health strategy at NYU Langone Health in New York. "There is an acute inflammatory response, increased blood clotting and cardiac involvement. And the cardiac involvement can either be due to direct involvement of the heart muscle by the infection and its inflammatory response. It could be due to blood clots that are formed, causing an obstruction of arteries," Goldberg said. "Sometimes people have very fast heart rates that can, over time, weaken the heart muscle, reduce the heart muscle function. So, there are multiple ways during this infection that it can involve the heart."

One of the JAMA Cardiology studies found that, among 100 adults who recently recovered from COVID-19, 78% showed some type of cardiac involvement in MRI scans and 60% had ongoing inflammation in the heart.

The study included patients ages 45 to 53 who were from the University Hospital Frankfurt COVID-19 Registry in Germany. They were recruited for the study between April and June. Most of the patients recovered at home, with the severity of their illness ranging from some being asymptomatic to having moderate symptoms.

The researchers used cardiac magnetic resonance imaging, blood tests and biopsy of heart tissue. Those data were compared with a group of 50 healthy volunteers and 57 volunteers with some underlying health conditions or risk factors. The MRI data revealed that people infected with coronavirus had some sort of heart involvement regardless of any pre-existing conditions, the severity or course of their infection, the time from their original diagnosis or the presence of any specific heart-related symptoms.

The most common heart-related abnormality in the COVID-19 patients was myocardial inflammation or abnormal inflammation of the heart muscle, which can weaken it. This type of inflammation, also called myocarditis, is usually caused by a viral infection.

The study has some limitations. More research is needed to determine whether similar findings would emerge among a larger group of patients, those younger than 18 and those currently battling coronavirus infections instead of just recovering from it.

In the other JAMA Cardiology study, an analysis of autopsies found that coronavirus could be identified in the heart tissue of COVID-19 patients who died. The study included data from 39 autopsy cases from Germany between April 8 and April 18. The patients, ages 78 to 89, had tested positive for COVID-19 and the researchers analyzed heart tissue from their autopsies.

The researchers found that 16 of the patients had virus in their heart tissue but did not show signs of unusual sudden inflammation in the heart or myocarditis. The sample of autopsy cases was small and the "elderly age of the patients might have influenced the results," the researchers noted.

Taken together the studies support that SARS-CoV-2 does not have to cause clinical myocarditis to find the virus in large numbers and the inflammatory response in myocardial tissue. In other words, one can have no or mild symptoms of heart involvement to actually cause damage," said Montgomery, who was not involved in the studies.

"Viruses in general have a way of making their way to organs that are quite remote from the original site of infection. SARS-CoV-2 is no different in this regard," he said. "What is different is that this virus seems to preferentially affect cardiac cells and the surrounding cells. These studies suggest that the heart can be infected with no clear signs.

Source: From an article by Jacqueline Howard, CNN Digital Published Wednesday, July 29, 2020 7:52AM EDT

RECENT RESEARCH FROM THE MAZANKOWSKI

A new ‘atlas’ of human heart cells has been developed as a first step toward precision treatments for heart disease. A University of Alberta cardiology team is using cutting-edge techniques to profile individual cells and genes in six regions of the heart. They have for the first time documented all the different cell types and genes expressed in the healthy human heart, in research published today in the journal *Nature*.

Cardiologists from the Mazankowski Alberta Heart Institute at the University of Alberta joined teams from Cambridge, Boston, and Berlin to use state-of-the-art analytical techniques to sequence the ribonucleic acids (RNA) in nine types of single cells from six regions of the heart. “Now we have a single-cell atlas of the normal human heart, including cellular composition and gene expression,” said Gavin Oudit, professor in the Faculty of Medicine & Dentistry, Canada Research Chair in Heart Failure, and director of the Mazankowski’s Heart Function Clinic and its Human Explanted Heart Program.

Oudit said this is the first step toward understanding heart disease and developing new targeted treatments to stop it. “What we are working on now is to see how the cell types and gene expression are changed in patients with genetic cardiomyopathies—a significant cause of end-stage heart failure and sudden cardiac death,” he said.

Next, researchers will be able to select specific mutations as treatment targets. “We want to correct those mutations, either with drugs or gene therapy, and start to reverse cardiomyopathies, ideally at an early stage,” Oudit said.

The Edmonton team helped the international consortium to isolate single cells and code the gene expressions from seven male and seven female healthy donor hearts. “This technique is truly remarkable,” Oudit said. “Rather than grinding up a piece of heart tissue and losing the cellular composition, this allows us to track the gene expression of every single cell.”

The U of A research was funded by the Canadian Institutes of Health Research, Alberta Innovates and the University Hospital Foundation. Oudit said the research could not have happened without the integrated team of transplant co-ordinators, cardiologists and cardiac surgeons working together in Canada’s largest research-integrated human heart transplant program at the Mazankowski Alberta Heart Institute.

Source: GILLIAN RUTHERFORD U of A Folio September 25, 2020
<https://www.folio.ca/new-atlas-of-human-heart-cells-first-step-toward-precision-treatments-for-heart-disease/>

CASE Events Calendar - October 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Essentrics Zoom with Lynn	2	3
4	5	6 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	7 Golf Twin Willows 11 AM Weather permitting	8 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	9	10
11	12 Thanksgiving Day	13 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	14 Golf Twin Willows 11 AM Weather permitting	15 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	16	17
18	19	20 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	21 Golf Twin Willows 11 AM Weather permitting	22 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	23	24
25	26 Board Meeting TBA	27 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	28 Golf Twin Willows 11 AM Weather permitting	29 Essentrics and Cardio 11:30 to 12:45 Zoom with Lynn	30	31

Note: Watch email for more detail on activities and events.