- Heart diseases / Virus

Be careful with your heart during COVID

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It's the heart month, not only in a romantic sense, but in a medical sense, as well. It's an opportune time to remind everyone not to neglect their heart problems due to their overwhelming fear of COVID-19, as if the viral infection was a worse killer than heart disease.



Cardiovascular disease is still the leading cause of death in the Philippines and in many parts of the world. And the way it looks, we'll have many excess deaths due to heart attacks and even stroke during the pandemic because of failure to go for a much-needed checkup. Some even discontinue their maintenance medicines because they have not seen their doctors for quite some time, and the drugstore would no longer honor their old prescriptions.

The uptick in cardiovascular cases may also be related to COVID-19 or vaccination. We're seeing quite a number of newly diagnosed cardiovascular cases who either had a previous COVID-19 infection or had been vaccinated.

Yes, both an infection and vaccination can wreak havoc in the cardiovascular system for some unlucky ones. Some dismiss their symptoms, like shortness of breath or palpitations, as being due to fatigue, overwork or stress, but if it persists for more than three weeks following an infection, it's best to consult your physician for a checkup to clear your heart.

Increased resting heart rate

The most common single finding we note in these patients is an increase in the resting heart rate (RHR). Many have the wrong impression that the normal RHR is 60 up to 100 beats a minute. An athletic son of a patient used to have an RHR of 55 to 60 a minute. A week after getting his second vaccine shot, his RHR increased to 86 to 95 a minute. He thought it was still within normal range so he didn't mind it, but he noted he couldn't even jog for more than 300 meters, whereas before he would regularly jog 5 to 6 kilometers at least three times a week.

On physical examination, he already had what is called a "gallop rhythm," heard by means of a stethoscope in individuals with heart failure. His heart was already slightly enlarged previously because he was athletic, but it got even bigger, and chest X-ray showed that the lungs were congested with excess water due to his heart failure.

We diagnosed him to likely have myocarditis or heart swelling, causing the heart to fail. Since we could not identify any other possible cause in a young adult—such as heavy drinking (alcoholic cardiomyopathy), recent viral infection (viral myocarditis) or prohib-

ited drugs (drug-induced cardiomyopathy)—we identified his heart swelling and failure as a vaccine side effect.

He responded well to treatment and didn't require hospitalization any more. But with a diagnosis of myocarditis, his heart has to be monitored from time to time to see if there's persistence of the heart swelling and weakening of the heart muscles.

Heart attack and stroke

An infection, especially COVID-19, can also cause myocarditis and even stroke or brain attack. At the start of the pandemic two years ago, we would be perplexed whenever we admitted a young adult patient with COVID-19 symptoms and stroke. We usually don't see stroke in the young as frequently as we got to see them during the pandemic.

Now we know, heart attack and stroke can be complications of the viral infection, usually due to the immune reaction the spike proteins can cause in the lining of the arteries in the heart or brain. This reaction causes the body's immune cells circulating in the blood to attack the spike proteins lodged in the lining of the arteries. That causes inflammation or swelling of the arterial lining and blood clots to form in the arteries, leading to a stroke or heart attack.

The increase in RHR or tachycardia can just be a transient reaction to either the virus during an infection, or to the vaccine. The fast RHR should normalize in a few days. If it remains faster by more than 20 percent than your usual RHR, and with unexplained symptoms, better get a checkup.

Know your baseline RHR

So, we advise everyone to know their baseline or RHR. After a 10-minute rest, in a relaxed sitting or lying position, take your pulse rate three times one minute apart. Discard the first reading and average the second and third readings. That's your RHR. Let's say your RHR is 70 per minute, then after recovering from COVID-19 or getting a jab, your heart rate is consistently 84 per minute or faster, accompanied by symptoms you didn't have before, better have yourself checked.

A healthy RHR is usually less than 80 per minute. In those with heart problems already, an ideal RHR is less than 70 per minute. We want the RHR slower in those with heart problems because the faster the RHR, the higher the oxygen consumption of the heart. It's like revving up your engine when idle in a traffic. You're unnecessarily consuming more gasoline. The same thing happens to the heart. With a faster RHR, more oxygen is consumed even at rest, and that can trigger a heart attack because of the deficiency in the oxygen supply to the heart due to excessive oxygen consumption or expenditure.

Some become worried if their RHR is less than 60 per minute, say 55 per minute. Up to 50 per minute is still a good RHR. In fact, we give medicines to slow down the RHR of heart patients to cut down on their oxygen consumption.

In patients with heart problems, they can also develop arrhythmias, or irregular heart beating. A fast heart rate by itself, say more than 100 per minute, may be considered an arrhythmia, called tachycardia.

But many can develop even worse arrhythmia, a fairly common form of which is called atrial fibrillation (AF). When one develops AF, the heart beats irregularly, and it should be

promptly treated. It can cause the heart to fail and form blood clots, which then get carried by the circulation, blocking a brain artery and causing a stroke, or a leg artery, causing gangrene and requiring amputation.

Because of their arrhythmia, some may faint (syncope) because there's not enough blood going up to the brain. Some arrhythmia (ventricular tachycardia) can really be serious and may cause the heart to suddenly stop (ventricular fibrillation or ventricular arrest). So, feeling palpitations, giddiness, dizziness or fainting spells during or after a COVID-19 infection or vaccination may need further evaluation to rule out any serious heart complication.

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Check your baseline BP

Since you're already taking your RHR, you might as well check your baseline blood pressure (BP) using the same procedure as when you check your RHR. With most BP digital devices, you can get your BP and RHR at the same time.

A COVID-19 infection or vaccination can increase your BP, so better to check that your baseline BP is

within normal range—less than 140/90 millimeters of mercury at rest before you go for your jab. If it's more than 160/90 mmHg, it's better to defer your vaccination.

The BP may increase for a few days but should stabilize even without adjusting your BP meds. If the BP exceeds 140/90 for more than a week already, it's best to consult your physician for a possible adjustment in your maintenance meds. And yes, the increase in resting BP and RHR usually goes hand in hand.

Many also have the wrong notion that since they're just working from home and feel more relaxed, they can discontinue their BP and other maintenance heart meds. This can be dangerous because without the protection offered by your maintenance meds, your BP and RHR can suddenly shoot up to stroke-causing levels when you're suddenly exposed to any form of stress—physical, emotional, mental, etc.

Don't ever take a chance with your life. Once a hypertensive, forever a hypertensive; chances are, you'll require maintenance meds for life. We do antihypertensive step-down adjustments, i.e., reducing the dose of antihypertensive meds when the BP is already low and stable, but this has to be done gradually and strictly under a doctor's supervision. Never do it on your own. There are tricky spots about stepping down treatment, which can cause big complications you'll regret forever.

So, in this merry month of hearts in love, show your love for your heart by following not only safety protocols to prevent COVID-19, but addressing possible unhealthy gaps in your lifestyle. If you don't know them yet, find out your baseline BP and RHR, and don't ever let the virus or its vaccine mess with your heart.