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Perspective

The Invisible Hand — Medical Care during the Pandemic

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I met him on March 3, 2020, a 70-year-old man with a 6-month history of classic stable angina. He had left-arm achiness whenever he walked uphill, reliably triggered by the same level of exertion and always relieved with rest. A stress test showed a large, reversible inferolateral defect, prompting consultation with me. At the time of his visit, travel restrictions had been issued for China, Iran, Italy, and South Korea, and the first Covid-19–related death had been reported in the United States. But on that day, in my office on Wilshire Boulevard in Los Angeles, Covid-19 wasn't even a blip on our radar.

Rather than ordering a knee-jerk coronary angiogram, I explained to the patient the 2014 Focused Update of the Guideline for the Diagnosis and Management of Patients with Stable Ischemic Heart Disease,[1] which recommends coronary angiography only in patients with presumed stable ischemic heart disease with unacceptable ischemic symptoms despite medical therapy. He was the perfect candidate for medical therapy, because when we first met he was receiving none.

Even better, the results of the ISCHEMIA (International Study of Comparative Health Effectiveness with Medical and Invasive Approaches) trial had been presented a few months before his visit.[2] This landmark trial compared optimal medical therapy or optimal medical therapy plus routine cardiac catheterization with revascularization in patients with stable angina. Its conclusion was a validation of the 2014 guidelines: an invasive approach did not reduce the risk of myocardial infarction or cardiovascular death. The results were also satisfying from a pathophysiological standpoint: a focal stenosis is the marker of the systemic disease of atherosclerosis, so it made more medical sense to treat the disease with medications rather than just fix the stenosis with a stent.

On November 16, 2019, the presentation of the ISCHEMIA trial was met with great fanfare at the American Heart Association Scientific Sessions. Internet medical pundits debated the finer points: Did the secondary end points actually favor intervention? Were the end points adjudicated fairly? And why were the results not simultaneously published in a high-impact journal? In retrospect, those passionate discussions seem quaint; just a day later, the yet-to-be-named SARS-CoV-2 infected the first patient in Hubei Province, China.

But on March 3, 2020, when faced with a patient who perfectly fit the profile of an ISCHEMIA trial enrollee, I delighted in the opportunity to provide guideline- and evidence-based therapy that

made pathophysiological sense, though the patient was suspicious, and his wife more so. Still, they listened politely as I explained the pathophysiology of atherosclerosis. They even smiled when I described the limitations of the "oculostenotic reflex," an interventional cardiologist's shorthand for the see-a-blockage–fix-a-blockage approach to coronary artery disease. The man agreed to start taking an aspirin, a beta-blocker, and a statin, though his wife made this plan contingent on an angiogram scheduled a few weeks later.

I acquiesced to the angiogram because I knew that risk–benefit calculations are not just for physicians; patients perform them, too. I worried about the complications of potentially unnecessary angiography that would not improve survival and might not be necessary to improve quality of life, if medical therapy worked its magic. The patient and his wife worried about a ticking time bomb in his chest. I knew it was barely ticking, but I also knew they were not entirely convinced that the fuse was long, measured in years, not weeks.

He scheduled a follow-up visit on March 18, 2020. By then, the World Health Organization had declared Covid-19 a pandemic, and my medical center was urging all physicians to change all nonessential office visits to telephone encounters. I had to decide: Was this follow-up visit essential? My first response: of course. Partly, it was instinct: How could looking into his eyes and auscultating his heart be anything but essential? Partly, it was inertia: I was accustomed to face-to-face visits; why try something new? But I set aside my reservations in the name of social distancing.

The patient, his wife, and I met over the phone, and despite my reluctance, it went well. I suspect Sir William Osler would not have been surprised. A patient with angina might have inspired Osler's aphorism "Listen to your patient; he is telling you the diagnosis," since angina can be diagnosed only by a careful history.

The patient reported that after 2 weeks of medical therapy, the discomfort was somewhat reduced; he still had aching in his left arm when he walked uphill, but could walk farther before needing to stop. And this time, his wife surprised me. Instead of asking whether we could move up the angiogram she had bargained for, she suggested we delay it and augment medical therapy instead. Had my explanation of atherosclerosis sunk in? Probably not; Covid-19 made them do it.

Pre–Covid-19, the patient and his wife had weighed the risks of an angiogram, including death, myocardial infarction, and stroke, as minor compared with the peace of mind that would come from treating the ticking time bomb in his chest. Post–Covid-19, they added the fear of the unknown, a potentially fatal respiratory infection, to the calculus. Suddenly, the benefits of medical therapy seemed greater; the ticking time bomb was Covid-19.

A few months ago, I would never have predicted that the National Basketball Association would suspend all games and Major League Baseball would cancel spring training. I would have rolled my eyes at the thought of restaurants, parks, and my kids' school closing indefinitely. I would never have believed that our routine Saturday-morning shopping excursions would require forays into three supermarkets to scavenge the essentials to sustain a family of five for a week. And I would never have predicted that a respiratory virus would generate more fear than coronary artery disease.

What will the next few months bring? My patient, his wife, and I will talk every week. If his symptoms don't improve, I'll augment medical therapy. If his symptoms worsen, I'll schedule angiography, hoping that my hospital still has the capacity to perform it when the time comes.

For physicians and patients alike, Covid-19 has clouded every aspect of our lives with uncertainty, and the consequences of our suppressed panic and anticipatory dread are impossible to predict. This patient was affected by Covid-19, not by means of a viral pathogen in his respiratory tract, but by means of fear of that pathogen. I am grateful that the invisible hand of Covid-19 inadvertently steered him away from a procedure he didn't need. But I worry that other patients may not be so lucky. Will fear of Covid-19 prevent them from presenting for medical attention when they need it?

Overwhelmed by the anticipated harms of Covid-19, we must remember that other diseases will continue to progress during the pandemic. With all our patients, we will have to ask ourselves a new question: What is the best approach to treating their disease, and how does our fear of Covid-19 affect our shared risk–benefit calculus? As we embrace new ways of communicating with patients, we must listen to not only their symptoms, but also to their fears. We must do our best to chart a course in the face of uncertainty, because other diseases will not

take a hiatus as the pandemic spreads exponentially around us.

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