

## **Revisiting Inflammation** IN THE COVID WORLD

## — By Narendra Singh, MD

Hopes that the COVID 19 coronavirus pandemic would diminish with the warmer weather did not materialize. Instead we are preparing to deal with ongoing viral spread through the fall and winter months while concurrently dealing with bacterial pneumonias and the common flu. All infections cause inflammation.

With the COVID 19 virus we now know there is marked generalized inflammation of the entire body. This can manifest in many different ways. In the pediatric population a rare complication called Multisystem Inflammatory Syndrome in Children MIS-C can cause severe respiratory and cardiac injury. Obesity, chronic lung disease, premature birth, Hispanic and black children are at increased risk. The most common presentation includes fever chills and gastrointestinal symptoms of nausea vomiting abdominal pain and diarrhea. As our children return to school we need to be vigilant about both prevention but also early identification of symptoms.

In adults the increased inflammation can cause weakness of the heart through muscle damage called myocarditis. We know that inflammation is a important trigger for the rupture of plaques within the heart that can lead to heart attack while rupture of plaques in the carotid arteries can lead to a stroke. The risk of blood clots also increases with coronavirus infections. These clots originate in the legs but can travel to the lungs causing life threatening complications. Studies have shown that fear of hospitals has kept many individuals from seeking prompt medical attention recently. If you have chest pain, shortness of breath or unexplained weakness please seek medical attention promptly.

fortunately Progress in medicine continues during the pandemic. An old antiinflammatory drug called colchicine has been previously used to treat gout and a heart condition called pericarditis. Two major studies have now tested this compound in low doses both in the setting of a recent heart attack (COLCOT study) and with chronic coronary heart disease (LoDoCo 2 study) Over a median follow up of 30 months colchicine reduced the risk of heart attacks, strokes and the need for revasculaization by 31% compared to standard care. Overall this low dose was well tolerated with one in 10 patients having to stop the drug usually for gastrointestinal side effects. Relatively speaking, the drug is inexpensive since it is already generic which hopefully will assist in widespread utilization.

Colchicine has been tested with COVID 19 infected patients in a small study in Greece and shown some promise in reducing clinical deterioration but its too early for any firm conclusions. While the push for a coronavirus vaccine is welcomed it is unlikely to provide complete protection. In addition to getting your flu and pneumonia shots the common sense measures of masks, handwashing and social distancing need to be practiced to reduce the spread. We can minimize inflammation in our bodies with foods rich in antioxidants (berries, pecan, dark chocolate, spinach, kale and beets) and if needed heart drugs such as statins and aspirin. Staying healthy through eating well, losing weight, exercising regularily and not smoking will collectively help reduce your chances of getting the virus and improve the chances of you surviving the virus.

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