FOR IMMEDIATE RELEASE

Pilot Study Suggests Link Between the Omega-3 Index and Risk for Death from COVID-19

January 12, 2021, Sioux Falls, SD: Researchers with the Fatty Acid Research Institute (FARI) and collaborators at Cedars-Sinai Medical Center in Los Angeles and in Orange County, CA, recently posted a report in medRxiv describing the results of a pilot study examining a possible link between low Omega-3 Index levels (lower levels of the omega-3s EPA and DHA) and risk for death from COVID-19 infection. The paper is currently undergoing peer review.

There are several papers in the medical literature hypothesizing that omega-3 fatty acids should have beneficial effects in patients with COVID-19 infection, but to date, there are no published studies supporting that hypothesis.

This study included 100 patients admitted to the hospital with COVID-19 for whom admission blood samples had been stored. Clinical outcomes for these patients were obtained and blood was analyzed for the Omega-3 Index (O3I) at OmegaQuant Analytics (Sioux Falls, SD). Fourteen of the patients died.

The 100 patients were grouped into four quartiles according to their O3I, with 25% of the patients in each quartile. There was one death in the top quartile (i.e., 1 death out of 25 patients with O3I>5.7%), with 13 deaths in the remaining patients (i.e., 13 deaths out of 75 patients with O3I<5.7%).

In age-and-sex adjusted regression analyses, those in the highest quartile (O3I >5.7%) were 75% less likely to die compared with those in the lower three quartiles (p=0.07). Stated another way, the relative risk for death was about four times higher in those with a lower O3I (<5.7%) compared to those with higher levels.

“While not meeting standard statistical significance thresholds, this pilot study – along with multiple lines of evidence regarding the anti-inflammatory effects of EPA and DHA – strongly suggests that these nutritionally available marine fatty acids may help reduce risk for adverse outcomes in COVID-19 patients. Larger studies are clearly needed to confirm these preliminary findings,” said Arash Asher, MD, the lead author on this study.

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Agreeing with Dr. Asher, cardiology researcher and co-developer with Dr. Harris of the Omega-3 Index, Clemens von Schacky, MD, (CEO, Omegametrix GmbH, Martinsried, Germany, and not involved with the study) said, “Asher et al have demonstrated that a low Omega-3 Index might be a powerful predictor for death from COVID-19. Although encouraging, their findings clearly need to be replicated.”

Omega-3 expert James H. O’Keefe, Jr., MD, (Director of Preventive Cardiology, Saint Luke’s Mid America Heart Institute, Kansas City, MO, and also not involved with the study) observed, “An excessive inflammatory response, referred to as a ‘cytokine storm,’ is a fundamental mediator of severe COVID-19 illness. Omega-3 fatty acids (DHA and EPA) have potent anti-inflammatory activities, and this pilot study provides suggestive evidence that these fatty acids may dampen COVID-19’s cytokine storm.”

The research team is currently seeking funding to expand upon these preliminary observations. Individuals and organizations that want to support this research are encouraged to visit FARI’s donations page.

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About the Fatty Acid Research Institute (FARI)
The Fatty Acid Research Institute (FARI) is a non-profit research and education foundation. FARI was founded in order to accelerate discovery of the health effects of fatty acids, most notably, the long chain omega-3 fatty acids EPA and DHA. FARI researchers and scientists will focus single-mindedly on publishing high-quality research studies on the multiple relationships between fatty acid levels and human (and animal) health outcomes. These studies will improve the ability to predict risk for disease, and more importantly, suggest ways to reduce risk by changing our diets and/or supplementation regimens. www.faresinst.org

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