Session/Poster# Presenter

A37 Ahmed Soliman
Pediatrics Resident

Advisor(s): Dr. Thomas Wallach, Pediatrics

Identification of Persistent Sars-Ncov-2 Viral Presence in the Intestines of Multiple Pediatric Patients Suggests Possible Common Etiology of GI Long Covid.

Long Covid,(LC) defined as the continuation of symptoms 3 months after the initial infection. Variations of LC may impact over 80% of patients, with unclear pathogenesis, although many speculate that persistent viral presence in end-organ tissue may drive local changes. We have sought to expand that finding by assessing patients who have undergone endoscopic evaluation for presence of SARS-nCoV-2 nucleocapsid to expand our understanding of the clinical effects of persistent infection.

We identified 7 patients with onset of symptoms in the post COVID window, who had undergone EGD/colonoscopy without histopathological diagnosis. New slides were cut, sent for staining at Histowiz inc (Brooklyn, NY), with rabbit monoclonal SARS-CoV-2 nucleocapsid antibody. Resulting slides underwent blinded pathology review to identify positives identifying 5 female patients ages 11-16 to date.

Patients presented with different symptoms including chronic abdominal pain, nausea, vomiting, loss of appetite, tenesmus, hematochezia and weight loss. Red flag symptoms such asÂ nighttime awakening with pain, weight loss, and elevated inflammatoryÂ markers or calprotectin were evident with some. Of the 5 patients identified, 2 had a known history of confirmed COVID infection. Endoscopic findings in the intestine were normal with the exception of edema noted in the cecum of two patients. Mucosal biopsies were also positive for notable lymphoid aggregates in the Colon and in the Terminal Ileum.

Overall Symptoms improved overtime with only measures targeted at IBS. Therefore, weÂ identified a tendency for persistent infection to occur, potentially explaining at least aÂ subset of persistent IBS-like symptoms associated with GI LC.

Our results and relatively frequent positivity of this IHC assay suggest that persistent viral activity may play a role in gastrointestinal long CovidÂ Initial clinical series suggests course similar to other post-viral syndromes, with clinical resolution over time.