**Highlights**

* Mental health impairment is common in COVID-19 convalescents
* Serotonin, kynurenine and catecholamine pathways might be the pathophysiological link
* Data from two cohorts were analyzed using multi-parameter linear modeling
* Kynurenine/tryptophan was affected independently by inflammation, SARS-CoV-2 infection, age, and mental stress
* Inflammation was associated with lower systemic serotonin and dopamine availability