Preliminary results in patients with COVID-19

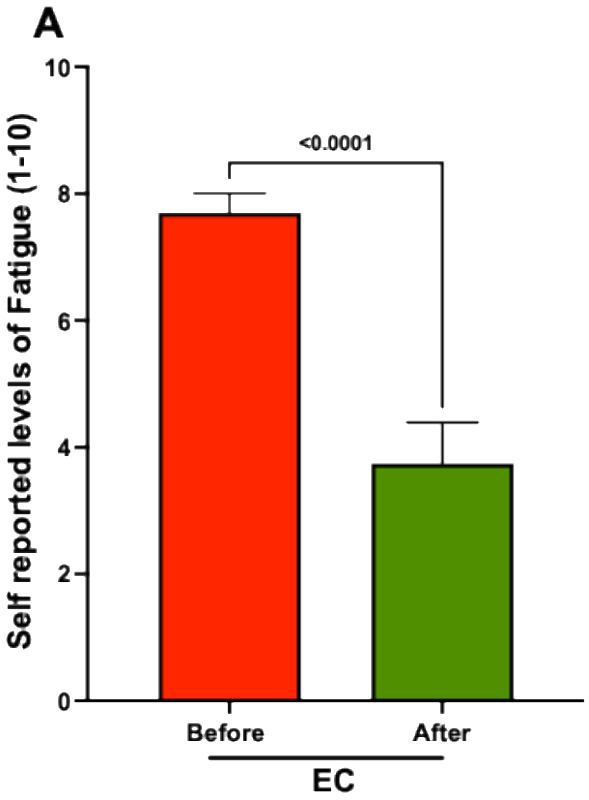
Abstract: Persistent fatigue is one of the symptoms that can last weeks or months after the initial SARS-CoV-2 infection. There is scientific evidence that the flavonoids can modulate the molecular pathways involved in the development of mitochondrial myopathy. To determine whether an epicatechin-enriched supplement (EC) can improve plasma markers of inflammation and fatigue in long COVID-19 patients, we conducted a randomized, double-blind, clinical trial.

The study included 46 subjects (mean age 52 years) allocated into EC or placebo, and were instructed to consume 2 capsules /day for up to 90 days. A comprehensive set of endpoints were assessed, which included mean change in plasma inflammatory and endothelial dysfunction markers, hand strength, fatigue scale, and quality of life (QoL). The results suggested an EC-induced significant improvement in almost all endpoints as compared with the placebo.

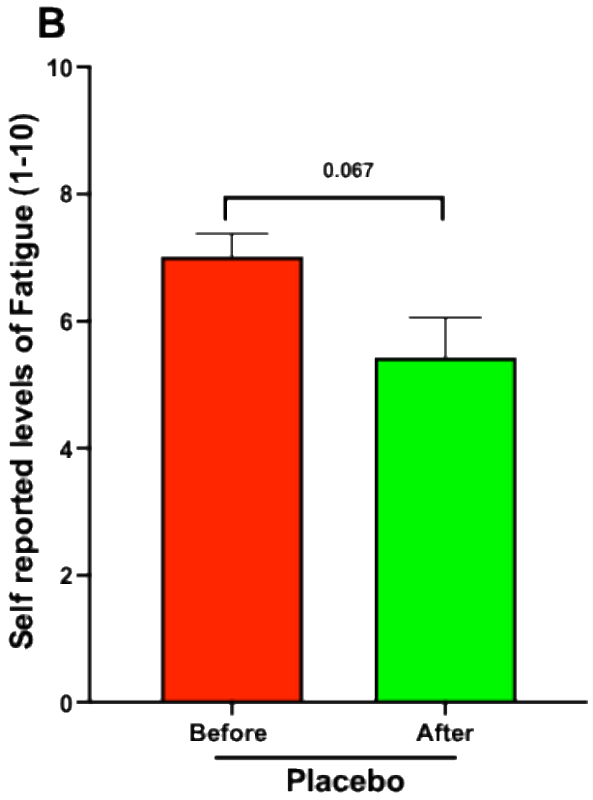
The results open a new venue in the treatment of this elusive illness after COVID-19

The experimental group received one capsule with 500 mg epicatechin-enriched product (containing cacao husk flour and 40 mg of free epicatechin) twice daily, the product was prepared in a certified GMP facility. The placebo group received one capsule with 500mg of excipients twice daily.

The self-reported levels of fatigue decreased by a significant 51% in the EC-treated group and by non-significant 22.6% in the placebo group

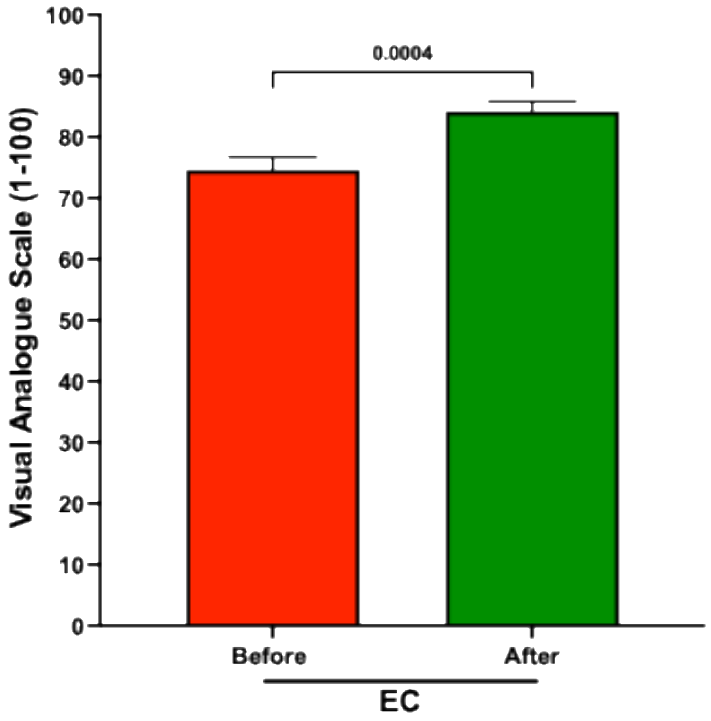


Decremento estadísticamente significativo

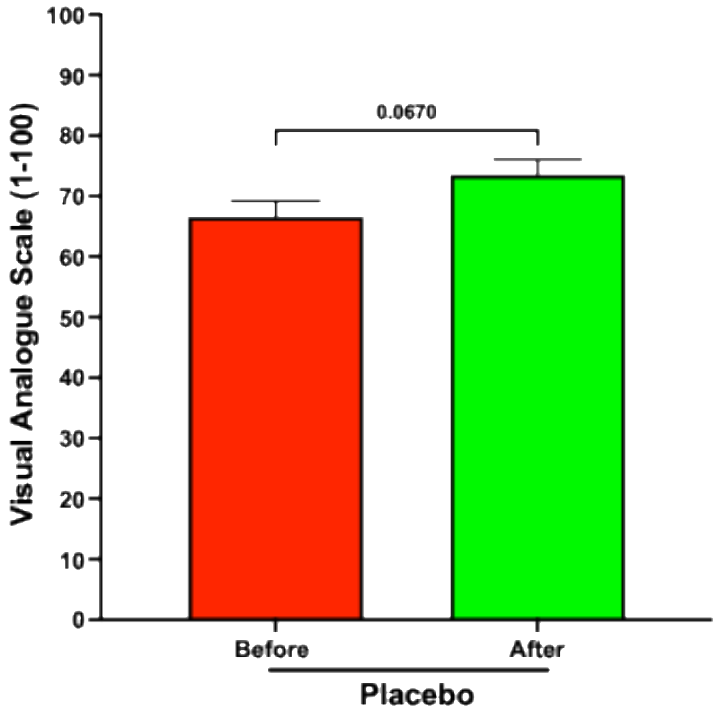


Sin cambio estadísticamente significativo

The analysis of Quality of Life (QoL) using the Visual Analogue Scale (VAS) showed that treatment with an epicatechin-enriched supplement increased the quality of life as compared with the placebo-treated group where a non-significant change was obtained



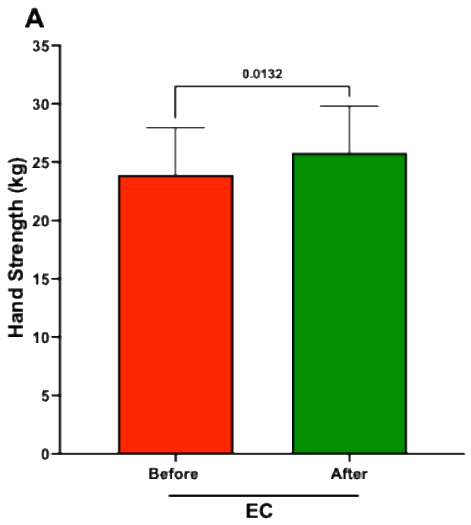
Incremento estadísticamente significativo



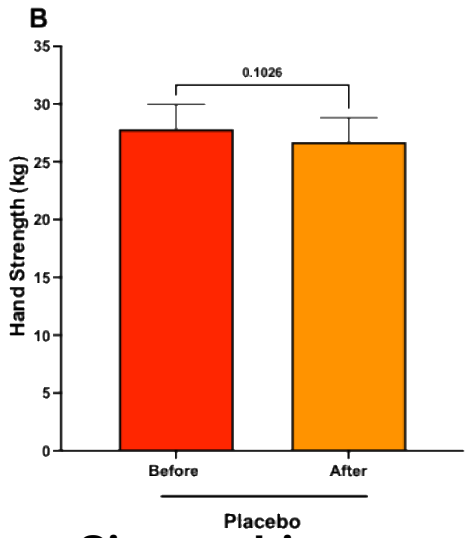
Sin cambio estadísticamente significativo

The hand grip strength was conducted separately between men and women since they have different strengths.
In men three months treatment with the epicatechin-enriched supplement induced a significant increase in strength in the dominant hand, while the placebo group showed a non-significant decrease in strength

Men



Incremento estadísticamente significativo



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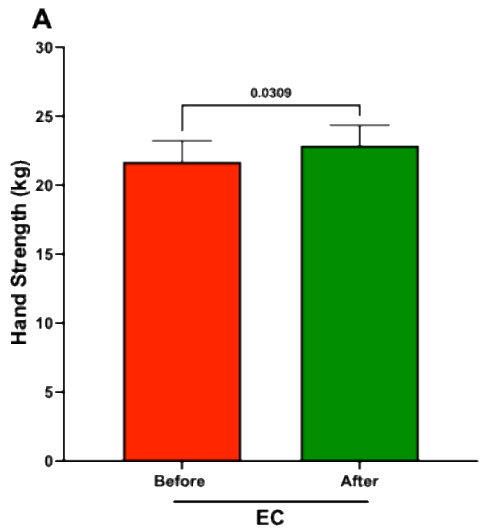
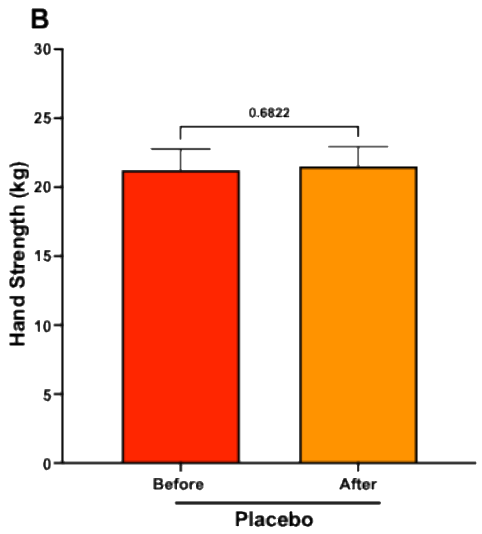
Women



Incremento estadísticamente significativo



Sin cambio estadísticamente significativo

Inflammation: The analysis of **TNFα** shows a significant decrease in the supplement-treated group, while the placebo group shows a nonsignificant decrease in TNFα (Figure 11B).

Glycocalyx endothelial marker: the analysis of **syndecan-1** shows a significant reduction in the group treated with the supplement and a nonsignificant change in the placebo group.