

A pilot placebo-controlled, double-blind, and randomized study on the cognition-enhancing benefits of a proprietary chicken meat ingredient in healthy subjects

ABSTRACT

Background: It has long been postulated that the relative abundance of specific nutrients can affect cognitive processes and emotions. Newly described influences of dietary factors on neuronal function and synaptic plasticity have revealed some of the vital mechanisms that could be responsible for the action of diet on brain health and cognitive function. Here, through a double-blind, randomized, placebo-controlled trial, we asked if the newly discovered chicken meat ingredient-168 (CMI-168) could be beneficial to the cognitive function in healthy adults. Methods: Normal, healthy subjects were supplemented with either placebo or CMI-168 for 6 weeks. The subjects were given a series of cognitive tests to examine their levels of cognitive functioning at the beginning and end of supplementation, as well as two weeks after termination of supplementation. The combination of these tests, namely Digit Span Backwards, Letter-Number Sequencing, and the Rey Auditory Verbal Learning Test (RAVLT), was used to assess the subjects' attention and working memory. For all comparisons, the probability level of $p < 0.05$ was taken as statistically significant using repeated measure 2-way ANOVA followed by Bonferroni post-hoc test. Results: Overall, subjects supplemented with CMI-168 showed significantly ($p < 0.01$) better performance in all cognitive tests after 6 weeks' supplementation compared to control and such superior performance was maintained even 2 weeks after termination of supplementation. Conclusions: The present study reveals the cognition-enhancing properties of a recently developed chicken meat ingredient, likely arising from the promotion of attention and prefrontal cortex functions.

Keyword: Attention; Chicken meat extract; Cognition; Essence of chicken; Working memory