RESULTS

Twenty relationdly trained males participated in this study. Subjects were required to be apparently healthy and free from disease, have no physical condition that was considered contraindication to cardiovascular training, and abstain from smoking, alcohol, and anti-inflammatory drugs during the 28-day period. In addition, all subjects were required to engage in physical activity at least 2 days per week. Subjects included participation in one or more of the following physical activities: resistance training, running, walking, basketball, soccer, crossfit, and rugby. Prior to testing, the study was approved by the MusclePharm Institutional Review Board for use of human subjects, and all subjects provided written informed consent to participate in the study.

Study Design

All subjects were randomly divided into two groups. Group A was instructed to ingest one serving while Group B was instructed to consume 2 servings of the CN every day for 28 days. Subjects were not required to consume the CN prior to, and Group B was permitted to consume one serving twice daily. The CN (Ino Creo®3, MusclePharm Corp., Denver, CO) contained 1000mg of creatine nitrate per serving.

Prior to the supplementation period, subjects were instructed to report to a local blood testing facility (Laboratory Corporation of America, Denver, CO, USA) in an 8 hour fasted, euhydrated state and not to exercise the morning of testing. Each subject completed an informed consent, health history, and exercise questionnaire. Resting heart rate and blood pressure were taken using an automated blood pressure cuff. The average of two tests with 2 minutes between tests was recorded for analysis. Height and weight were measured using a SECA 703 high capacity scale. Subjects then provided a baseline blood and urine sample for full safety panels.

After baseline measurements were completed, subjects were provided with the CN supplement and instructed to record a supplementation and adverse events log for 28 days. They were also instructed to maintain their current diet and exercise routine as it had been for at least two months prior to the start of the study. The CN supplementation period was not statistically or clinically significant changes in blood chemistry or hematology were observed. No adverse events were reported in this study. CONCLUSIONS: Chronic CN supplementation appears to be safe in male populations when taken within recommended usage guidelines. PRACTICAL APPLICATIONS: CN supplementation appears to be a safe alternative to CM in male populations. As an ergogenic aid CN may be as effective as CM in producing greater strength and fat-free mass development; however, more studies comparing CN to CM are needed to confirm this theory.

CONCLUSIONS

Chronic supplementation of the CN did not affect kidney or liver enzymes or cholesterol levels. No interactions were observed and no mean difference from post to post was observed for either group for all tested blood markers (P > 0.05). Therefore chronic CN supplementation appears to be safe in male populations when taken within recommended usage guidelines.

PRACTICAL APPLICATIONS

CN supplementation appears to be a safe alternative to CM in male populations. As an ergogenic aid CN may be as effective as CM in producing greater strength and fat-free mass development; however, more studies comparing CN to CM are needed to confirm this theory.