mented with 5 capsules (400 mg *C. sinensis my*/capsule) daily for 14 days. Compliance with the supplement regimen was confirmed by pill counts.

Sample collection and analysis

Ten milliliters of blood was collected after 12-h fasting from each subject prior to and 14 days post supplementation. The blood sample was put into tubes containing EDTA for biochemical assay. A portion of the whole blood was analyzed by Coulter-Counter and a hemoglobinometer (Coulter Electronics GmbH, Krefeld, Germany) for the parameters of iron status -- red blood cell count, hemoglobin (HGB), hematocrit (HCT), mean corpuscular volume (MCV), mean hemoglobin concentration (MHC), and mean corpuscular hemoglobin concentration (MCHC). The remaining of blood samples were centrifugated at 1000 rpm for 10 min to separate the plasma. All plasma samples were stored at -30 °C until analyses for other variables. Plasma lipids, including triglyceride (TG), total cholesterol (TC), low-density lipoprotein cholesterol (LDL-Chol), and high-density lipoprotein cholesterol (HDL-Chol), were determined by enzymatic-colorimetric methods using commercial kits (Randox Lab, Crumlin, Antrium, UK). Plasma glutamate-oxaloacetate transaminase (GOT, EC2.6.1.1.) and glutamate-pyruvate transaminase (GPT, EC2.6.1.2.) activities were determined by SCE (Scandinavain Committee on Enzymes)-UV methods using commercial kits (Randox Lab). Total antioxidant status (TAS) was measured based on the method of Miller *et al.* by using a commercial kit (Randox Lab).[18]

Statistical Analysis

Data obtained before and following supplementation were compared using Student's paired t-test with a SAS program. Differences of $P < 0.05$ were considered significant.

RESULTS AND DISCUSSION

Various chemical components of *C. sinensis my* are shown in Table 1. It has a similar composition compared with natural *C. sinensis* grown in the wild, such as the amounts of polysaccharide, amino acids, vitamins, and minerals.[1,2] Furthermore, *C. sinensis my* contains twice the amount of adenosine as in the natural type.

Table 2. Effect of Cultured Mycelium of *Cordyceps sinensis* on ICR Mice Fed with Different Doses

	Dose $mg \cdot d^{-1}$			
Age (wk)	50	100	200	400
3-wk weaning mice				
No. alive/total no.	20/20	16/16	13/15	17/18
Body weight (gm)				
Before	29.2	27.8	32.2	32.5
After	32.4	30.6	29.5	30.5
8-wk mice				
No. alive/total no.	16/16	13/15	14/15	12/14
Body weight (gm)				
Before	33.6	33.4	34.4	35.8
After	38.7	36.9	40.3	36.2

ICR mice received different doses (50,100,200, and 400 mg/d) of cultured mycelium of *Cordyceps sinensis* for 3 d and were observed for 5 d.

Observations of mortality of weaning and larger mice fed with different doses of *C. sinensis my* are presented in Table 2. Few mice died after 3-day feeding and 5-day observation. Body weights of 8 groups of mice changed little before and after feeding. The dose of feeding was 50-400 $mg \cdot mouse^{-1} \cdot day^{-1}$ or 1000-4000 $mg \cdot kg$ body $weight^{-1} \cdot day^{-1}$. According to a report from China, the toxicity of both natural *C. sinensis* and cultivated *C. sinensis my* is very low. When mice were given natural *C. sinensis* or *C. sinensis my* by i.p. (intraperitoneal) route, the LD_{50} (median lethal dose) was 21.7 ± 2.6 and 17.4 ± 1.9 g/kg body weight, respectively.[19] The maximum tolerance to *C. sinensis my* of mice was 80 g/kg when fed by i.g. (intra-gastric) route.[20] Therefore, the safety of feeding dose in this study, 5 capsules of 400 mg *C. sinensis my* per day, is certain.

The characteristics of all human subjects are shown in Table 3. The body mass index (BMI) of all subjects was within the reference range (19-24).[21] There was no significant difference in blood pressure before and after supplementation pressure. Table 4 shows the values of blood parameters. None of them was significantly different between before and after supplementation.

Values of blood lipids are presented in Table 5. As compared to the control value, the concentration of HDL-Chol increased significantly by 25% after *C. sinensis my* supplementation. No significant difference in TG, TC or LDL-Chol concentrations was observed between before and after supplementation. A study