3) 비만도가 20%이상인 경우는 A군에서 2.8%로 B군(10.8%)보다 유의하게 낮았다.

4) 혈청 총 콜레스테롤, HDL, LDL 콜레스테롤의 평균치는 A군에서 각각 177.9 ± 21.3, 63.01 ± 9.9, 100.2 ± 20.1 mg/dL으로 B군(158.7 ± 25.2, 54.8 ± 12.0, 86.9 ± 27.1)보다 모두 유의하게 높았고, 중성지방의 평균치는 A군(73.4 ±23.5)이 B군(87.9±42.6)보다 유의하게 낮았다.

5) 혈청 총 콜레스테롤이 200 mg/dL이상인 경우와 LDL 130 mg/dL이상인 경우는 A군에서 각각 19.6%와 11.2% 으로 B군(7.1% 및 4.5%)보다 유의하게 많았다.

6) 중성지방이 150 mg/dL이상인 경우와 HDL 콜레스테롤이 40 mg/dL이하인 경우는 A군에서 각각 1.9%와 0.9% 로 B군(8.2%, 11.2%)보다 유의하게 적었다.

결 론: 운동선수군은 운동을 하지 않은 대조군에 비해 신장이 컸고, 낮은 체지방율, 낮은 비만도, 높은 HDL 콜레스테 롤 수치와 낮은 중성지방 수치를 보여 이는 규칙적인 운동의 효과일 것으로 여겨진다. 운동선수군에서 혈청 총 콜레스테 롤과 LDL 콜레스테롤의 상대적으로 높은 수치에 관해서는 식생활 조사를 포함한 광범위한 연구가 필요할 것으로 사료 된다.

【O-3】

Dietary Behaviors, Self Perception of Body Image, Hematological Index and Nutrient Intake of Female Athletes in Incheon

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The purpose of this study was to investigate dietary behaviors, body image, hematological index and nutrient intake of female athletes in Incheon. The subjects were 112 female athletes (field and track: n = 32, firing: n = 27, fencing: n = 29, swimming: n = 14, badminton: n = 10) from middle and high schools in Incheon. This cross-sectional study was conducted by a self-administered questionnaire. Fasting blood samples were obtained and analyzed for hemoglobin (Hb), hematocrit (Hct), ferritin, serum iron, mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC), unsaturated iron binding capacity (UIBC), total iron binding capacity (TIBC) and transferrin saturation (TS). Nutrient intakes collected from 3 day-recalls were analyzed by the Computer Aided Nutritional Analysis Program. Statistical analysis was conducted using SPSS 10.0 program. The results are summarized as follows: Average age of field and track athletes, firing, fencer and swimmer was 14 years and that of badmintoner was 17 years. Most of female athletes had dietary problems such as unbalanced meals, skipping meals, and preference of processed foods. More than 60% of female athletes skipped breakfast. As for perception of body image, most of female athletes perceived themselves fatter compared to normal body image. Especially, field and track athletes were more significantly experienced weight control compared to the other athletes ($p < 0.05$). As for physical burden during exercise, 56.3% of swimmer and 31.3% of field and track athletes answered "very hard", which showed a significant difference ($p < 0.001$). More than 80% of female athletes had experienced a vertigo during exercise ($p < 0.01$). Also, more than 50% of female athletes except badmintoner had experienced an irregular menstruation ($p < 0.05$). Average serum iron level ($p < 0.05$) and TS ($p < 0.05$) of field and track athletes were significantly lower compared to the other athletes. Serum ferritin of badmintoner, field and track athletes and fencer was significantly lower compared to firing and swimmer ($p < 0.05$). Nutrient intakes of female athletes except vitamin B6, niacin and phosphorus were lower than the Korean RDA. Especially, calcium and iron intakes of female athletes were under the 50% of the Korean RDA. Therefore, proper nutrition education and supplementation are required for female athletes to encourage desirable food habits as well as to improve their nutritional status and exercise performance.