

P5-1

A study on the necessity of the nutrition and hygiene education for the elementary school students in Daegu

Lee, Sung-Hee, Bae, Ji-Hyun*

Department of Food Science and Nutrition Keimyung University

The purpose of this research is to present the efficient directions of nutrition and hygiene education for elementary school children. We examined the problems of eating habits, table manner, nutrition knowledge, hygiene education and perception and expectations on nutrition of elementary school children. We surveyed 990 among fourth, fifth and sixth grade students in Daegu for the necessity of the nutrition and hygiene education. The following summarizes the result of the study. The 89% of the subjects have meals at a regular basis, the 59.8% take as much time as others have meals. The 74.8% show that they have proper amount of meals. The 11.9% of the respondents skipped breakfast, 1% dinner and a larger number skip breakfast than they do dinner. The 42% of the respondents have a snack once a day, the kinds of snack they most frequently enjoy are bread and cookies followed by fruit, juice, dukbokgi, fish ball and milk. Most of the children are aware of their problem on eating patterns and they chose unbalanced diet as their worst eating habit to be corrected. They got their eating habits mostly from their parents or TV programs and ads. As a result of quantifying their table manner and knowledge of nutrition and hygiene by general traits, girls rank higher score than boys. In case they have two to three family members and they don't have any job, they got higher score. The older their mother is, the higher level of education their mother's got and the richer they are, the higher score they got. These results indicated that elementary school children tended to have undesirable eating behaviors, but the rate of children who know the importance and the needs of nutrition and hygiene education in school was high. Therefore, a systematic nutrition and hygiene education should be implemented by nutrition teachers. Furthermore, nutrition education for their parents as well as for children will be more required.

P5-2

Monitoring on Extraction Yields and Functional Properties of Fluid *Chungkukjang* Extracts by Using RSM

Bo-Mi Lee, Jeong-Ryong Do and Hyun-Ku Kim*

Korea Food Research Institute

Extraction characteristics of fluid *Chungkukjang* and the functional properties of corresponding extracts were monitored by the response surface methodology (RSM). The maximum extraction yield of 78.82 %

was obtained under the specific extraction conditions, such as microwave power of 120.44 W, ratio of solvent to sample content of 1.58 g/ml and extraction time of 14.83 min. The maximum inhibitory of tyrosinase activity was found as 26.75 % at the conditions of 30.56W microwave power, 2.40 g/ml of ratio of solvent to sample content and 10.00min extraction time, respectively. The maximum superoxide dismutase (SOD)-like activity was 53.23 % under the extraction conditions of 108.42 W, 4.38 g/ml and 7.84 min. Based on superimposition of three dimensional RSM with respect to extraction yield, inhibitory of tyrosinase activity and SOD-like activity obtained under the various extraction conditions, the optimum ranges of extraction conditions were found to be microwave power of 55~75 W, ratio of solvent to sample content of 2~5 g/ml and extraction time of 3.5~15 min, respectively.

P5-3

사염화탄소에 의해 손상된 흰쥐 간 회복에 미치는 Glutathione 고함유효모의 영향

박상현*, 김정옥, 허진선, 박보경, 안희영, 조영수
동아대학교 응용생명공학부

사염화탄소(CCl₄)에 의한 흰쥐의 산화적 스트레스와 간독성에 대한 Glutathione 고함유 효모 FF-8(KACC 93023)의 방어 작용에 대해 중점을 두고 연구하였다. 간 손상 지표인 ALT, AST, ALP, LDH, 지질 과산화물(TBARS), Glutathione 저하율 등을 통해 Glutathione 고함유 FF-8에 의한 간 손상 개선 효과를 검토하였다. 혈청과 간의 간 손상 지표는 CCl₄ 처리군에서 증가하였지만 Glutathione 고함유 FF-8을 처리한 군에서는 5% 수준에서 유의적으로 감소하였다. 항산화 체계화 밀접한 관련성을 가지는 간의 Glutathione 함량은 CCl₄ 처리군에서 감소하였지만 Glutathione 고함유 FF-8을 처리한 군의 간 Glutathione 함량이 유의적으로 증가하여 정상군과 유사한 결과를 나타냈다. 따라서 Glutathione 고함유 FF-8은 아무런 부작용 없는 효율적인 항산화제로 생각되며 CCl₄에 의한 흰쥐의 산화적 스트레스와 간독성을 완화 시키는데 유용할 것으로 사료된다.

key word : CCl₄, glutathione, FF-8(KACC 93023), Hepatotoxicity

P5-4

당귀 methanol 추출물의 생리활성

박경옥, 최사라, 홍혜란, 김재용¹, 손미예², 서권일*
순천대학교 식품영양학과, ¹경북대학교 식품공학과, ²경상대학교 식품영양학과

당귀(*Angelica Gigas Nakai*)를 기능성 식품소재 및 의약품의 원료로 활용하기 위하여 당귀 methanol 추출물에 대한 항산화, 항암 및 면역활성을 조사한 결과는 다음과 같다. 당귀의 항산화력