여성 고령자의 인플루엔자 백신접종 후 레크리에이션 댄스 및 요가가 면역반응 및 체력에 미치는 영향

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Abstract

Kong, K.M., Kim, K.J., Effects of recreation dance and yoga on immunity reaction and physical fitness after influenza vaccination in elderly women. *Exercise Science*. 19(1): 1-14, 2010. This research analyzed the changes of blood and saliva IgA and cortisol concentration, and physical fitness by administering respectively for 12 week yoga exercise or recreation dance after influenza vaccination to healthy aged women. Subjects were composed of 17 healthy aged divided into recreation dance group(N=10) and yoga group(N=7), where recreation dance group practiced exercise program three times a week for totally 12 weeks, and yoga group, as control group, performed yoga motions with focus on stretching 2 times a week for totally 12 weeks. Body composition items, IgA and cortisol concentrations showed no significant changes after exercise intervention in both groups. However, yoga group showed more positive changes of S-flow rate and SIgA secretion rate than recreation dance group. Regarding health-related physical fitness items, grip strength and balance tended to increase in recreation dance group compared to yoga group, and muscular endurance, agility and heart rate recovery rate etc tended to increase in both groups. In conclusion, to aged women, recreation dance and yoga programs are judged to make positive effects on body composition and health-related physical fitness. Although recreation dance and yoga programs are judged to make no significant effects on immunity variables, yoga program showed a positive effects to S-flow rate and SIgA secretion rate.

Key words : influenza, IgA, cortisol, body composition, yoga, recreation dance, fitness

초 록

공경민, 김기진, 여성 고령자의 인플루엔자 백신접종 후 레크리에이션 댄스 및 요가가 면역반응 및 체력에 미치는 영향. *운동과학*, 제19권 제1호, 1-14, 2010. 본 연구는 건강한 여성 고령자에게 인플루엔자 백신접종 후 레크리에이션 댄스를 주 내용으로 한 복합 운동프로그램과 요가운동을 각각 12주간 실시하여 신체구성, 혈중 및 타액의 IgA와 코티졸 농도, 체력수준의 변화를 분석하였다. 연구대상자는 건강한 고령자 17명을 레크리에이션 댄스그룹(N=10)과 요가그룹(N=7)으로 구성 하였는데, 레크리에이션 댄스그룹은 총 12주간 주 3회 운동프로그램을 실시하였으며, 요가그룹은 통제그룹으로써 총 12주간 주 2회로 스트레칭 위주의 요가동작으로 실시하였다. 신체구성 항목과 혈중 및 타액의 IgA농도는 그룹 및 시기 간에 유의한 차이가 없었으며, 그룹 및 시기의 유의한 상호작용 효과도 없었다. 그러나 S-flow rate와 SIgA 분비율은 레크리에이션 댄스그룹에서 운동 전보다 중간측정 시에는 유의하게($p<.05$) 감소하였으며 사후 측정 때는 유의하게($p<.01$) 증가하였다. 빛 반응시간은 레크리에이션 댄스그룹에서 운동 후에 운동 전 보다 유의하게($p<.05$) 감소하였으며, 근력 및 평형성이 요가그룹보다 레크리에이션 댄스그룹에서 증가하는 경향을 나타냈으며, 유연성은 요가그룹에서 증가하는 경향을 나타냈다. 이상의 결과에서 여성 고령자를 대상으로 레크리에이션 댄스 및 요가프로그램을 적용했을 때 신체구성 항목에서는 현저한 변화를 나타내지 않았으나 일정한 신체구성상태가 그대로 유지된 것은 본 연구의 대상자가 고령자임을 고려한다면 비교적 긍정적인 결과로 간주될 수 있다. 또한 S-flow rate 와 SIgA 분비율은 요가그룹에서 긍정적인 변화를 나타냈으며, 건강관련체력은 두 그룹 모두 다소 긍정적인 향상을 나타냈다고 생각된다.

주요어 : 인플루엔자, IgA, 코티졸, 신체구성, 요가, 레크리에이션 댄스, 체력

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