INFLAMMATORY MARKERS AND PHYSICAL PERFORMANCE IN OLDER PERSONS

ABSTRACT

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AIMS & OBJECTIVES

To evaluate the relationship between inflammatory markers CRP & IL6 and physical performance in older population.

METHODOLOGY

Study Centre Geriatric Medicine OPD,
Rajiv Gandhi Government General Hospital, Chennai.

Study Duration 6 months

Study Design Cross sectional and observational study

Sample size 75 patients

Inclusion criteria Older persons above 60 years, willing for study

Exclusion criteria Older persons not willing for study

Older persons unable to do physical performance tests

Older persons with cognitive impairment

Procedure

Patients were selected as per above said inclusion & exclusion criteria. Detailed History with comorbidities were obtained, Clinical examination, Mental status examination, physical performance tests of walking speed, 30 sec chair stand test, 4 stage balance test and handgrip strength were done. Blood samples for CRP & IL6 were collected.
RESULTS

CRP was significantly correlated with 4 stage balance test \((r= -0.545)\), 30 sec chair stand test \((r= -0.4)\), gait speed \((r= -0.507)\) and handgrip strength \((r= -0.458)\). IL6 was significantly correlated with 4 stage balance test \((r= -0.548)\), 30 sec chair stand test \((r= -0.408)\), gait speed \((r= -0.450)\) and handgrip strength \((r= -0.438)\). High levels of CRP & IL6 were independently and strongly associated with poor performance of 4 stage balance test, 30 sec chair stand test, gait speed and handgrip strength \((p\ value < 0.01)\).

CONCLUSION

Inflammation, measured as high levels of IL-6 and CRP is significantly associated with poor physical performance and muscle strength in older persons. The assessment of inflammatory markers may represent a useful screening test and perhaps a potential target of intervention. Further longitudinal studies are needed to understand the effects of inflammatory markers on physical performance in older persons and to prevent functional disability.

KEYWORDS

Inflammation, CRP, IL6, Physical performance, Elderly.