

# **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**

<b>Study Centre</b>	Geriatric Medicine OPD, Rajiv Gandhi Government General Hospital, Chennai.
<b>Study Duration</b>	6 months
<b>Study Design</b>	Cross sectional and observational study
<b>Sample size</b>	75 patients
<b>Inclusion criteria</b>	Older persons above 60 years, willing for study
<b>Exclusion criteria</b>	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.