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Title: Reference values for the 6-min walk test in healthy subjects 25-55 years old in Bangladesh

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Body: Introduction: The six minute walk test (6MWT) is increasingly accepted worldwide to assess functional exercise capacity of cardiac and pulmonary diseases for its simplicity. Aims and objectives: The aim of the present study was to provide reference values for 6MWD and other primary variables such as oxygen saturation (SpO₂), pulse rate (PR) and breathlessness perception done in 6MWT. Methods: We studied a sample of 190 healthy subjects (53 females) of age between 20-50 years (37.9±8.5 years). Baseline lung functions including forced expiratory volume in 1 second (FEV₁), forced vital capacity (FVC) and FEV₁/FVC ratio were measured by a flow sensing spirometer. All subjects performed 6MWT according to standard protocol provided by the American Thoracic Society (ATS) guidelines (Am J Respir Crit Care Med 2002;166:111-7). The fatigue and dyspnoea was measured before and after 6MWT by modified Borg scale. The SpO₂ and PR were measured also by a light weight pulse oxymeter. Results: The mean 6MWD was 466.7±69.4m, ranging from 213 to 659m and the mean DW was 28732±7024 kg-m. Dyspnoea status and oxygen saturation remained unaltered throughout the walk. Mean resting and walking SpO₂ values were, respectively, 97.1±1.3% and 96.8±1.5%. The mean change in SpO₂ was .3±1.5%. PR was significantly affected by the walk. Mean resting and maximum PR after walking were respectively, 80±7 and 103±12 bpm (p<.01). Gender significantly affected the 6MWD (p<.01). In all subjects, the 6MWD was inversely and directly related, respectively, to age (r=-.15; P<.05) and height (r=.41; P<.01). Conclusion: This study showed reference values for the 6MWT variables of subjects in Bangladeshi population.