

Evaluation of the EPInfant scale during an incremental exercise test in treadmill [Evaluación de la Escala EPInfant durante una prueba de ejercicio incremental en cinta rodante]

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Introduction: The scales of perceived exertion (PE) quantify the perceptual changes induced by physiological stress during exercise. Whereas the adult scales cannot be used in children, it was built the EPInfant scale for Spanish speaking children. The aim of this study is to determine the validity of the criteria for an exercise test on a treadmill. Methods: Cross-sectional study, in which the criterion validity was determined by linear regression between the EP and variable intensity exercise (heart rate and workload) during incremental exercise test in treadmill (Naughton's test). Results: At study entered 26 healthy children (13 males) with a mean age of 13.6 ± 0.13 years-old. Both the PE and heart rate (HR) increased significantly at every level of intensity during the Naughton's test. It was observed a strong linear correlation between the PE and HR, as well as between PE and workload (speed and slope of the treadmill). All regression models were highly significant ($p < 0.0001$). Conclusion: EPInfant scale has an acceptable criterion-related validity to measure PE during an incremental exercise test on a treadmill in the studied sample of children. Future studies are needed to determine other properties of measurement in this type of exercise. © 2016, Sociedad Chilena de Enfermedades Respiratorias. All rights reserved.

Adolescent

Exercise test

Heart rate

Perception

Physical exertion