THE RELATIONSHIP BETWEEN AEROBIC AND ANAEROBIC FITNESS COMPONENTS IN SQUASH PLAYERS
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Background
High level of aerobic fitness has been associated with greater anaerobic fitness during prolonged intermittent activities. The purpose of this study is to investigate the relationship between predicted maximal oxygen consumption (PVO2max) and repeated sprint performance in squash players.

Methods
Thirty-four Malaysian national squash players comprise of 18 male (18.3 ± 3.7 years; 173.0 ± 8.6 cm; 66.4 ± 10.8 kg) and 16 female (18.6 ± 4.1 years; 160.7 ± 6.3 cm; 54.1 ± 5.3 kg) undertook physical fitness tests designed to assess aerobic (20 meter shuttle run) and anaerobic capacity (5 meter repeated shuttle run).

Results
Mean values for PVO2max of the male and female squash players were 57.0 ± 3.5 and 46.2 ± 4.4 mL kg⁻¹ min⁻¹ respectively. The mean distances achieved in the 5 meter repeated shuttle run by the male and female squash players were 706.8 ± 24.4 and 632.4 ± 29.8 m respectively. A significant correlation (r = 0.92, p < 0.01) was observed between PVO2max and repeated shuttle run scores.

Conclusions
A strong correlation was confirmed between aerobic fitness and repeated sprint ability in squash players. Thus, high persistence and maintenance to repetition of strenuous sprints in squash game rely greatly upon aerobic fitness. Nevertheless, other fitness components should be further examined to ascertain their contributions towards repeated sprint performance.

Keywords: Assessment and Evaluation, Sport Physiology