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#### 題目 (Title):

健康兒童的最大呼吸壓力:測量值與預測值的比較 (Maximal Respiratory Pressures of Healthy Children: Comparison Between Obtained and Predicted Values)

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### 背景 (Background):

目的為比較由巴西健康兒童實際測量所得之最大吸氣和吐氣壓力值和與先前研究預測值之差異。

To compare maximal inspiratory and expiratory pressures (PImax and PEmax, respectively) obtained in Brazilian children who are healthy with reference and predicted values from previous studies.)

#### 方法 (Methods):

測量 144 位 7-11 歲兒童(63 位男童)的呼吸肌力。測量時採坐姿夾鼻夾,使用數位化真空壓力計,利用測量兒童肺餘容積及肺總容積,來得到最大吸氣壓力值 (PImax)和最大吐氣壓力值(PEmax)。

(Respiratory muscle strength of 144 children (63 boys), aged 7 to 11 years, was assessed. A digital manovacuometer was used to measure Plmax and PEmax from

residual volume and total lung capacity, respectively. Children were assessed in the sitting position while wearing a nose clip.)

## 結果 (Results):

男生與女生的平均最大吸氣壓力值分別為  $81.6 \pm 20.2$  和  $66.1 \pm 19.5$  cm H2O,男生與女生的平均最大吐氣壓力值分別為  $95.6 \pm 21.1$  和  $78.9 \pm 19.7$  cm H2O。

(Mean values of PImax for boys and girls were  $81.6 \pm 20.2$  and  $66.1 \pm 19.5$  cmH2O, respectively. Mean values of PEmax in boys and girls were  $95.6 \pm 21.1$  and  $78.9 \pm 19.7$  cmH2O, respectively.)

### 結論 (Conclusions):

過去發表的最大吸/吐氣壓力值參考值在不同的年齡組有很大的變異性,並且發表的方程式無法成功的預測最大呼吸壓力值;因此兒童的呼吸肌力的評估應考慮如何降低因種族和評估方法所造成的差異。

(Published reference values demonstrated a wide diversity across age groups studied, and published equations were not successful in predicting maximal respiratory pressures; thus, the assessment of respiratory muscle strength of children should consider the minimization of ethnic and methodological differences.)

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