Abstract

Objective: To identify whether flight training activities cause postural changes in cadets and pilots of the Brazilian Air Force Academy (AFA). Methods: Eighty subjects were assessed through photographic images in anterior and right side views. Four groups of cadets (n=20 per group) divided according to the year since enlistment and a fifth group of fifteen pilots from the Air Demonstration Squadron (ADS) were included. Pictures were analyzed using the Postural Analysis Program (SAPO) and angles related to head vertical alignment (HVA), head horizontal alignment (HHA), acromion horizontal alignment (AHA) and anterior-superior iliac spine horizontal alignment (HAS) were plotted. Results: We did not find statistical significant differences in the angles: HVA, HHA and AHA. However, a significant difference was found for the HAS angle with pilots having lower values than cadets, suggesting greater postural stability for this variable in pilots. Conclusion: The horizontal alignment of the anterior-superior iliac spine was the only measure that showed significant difference in the comparison between pilots and cadets. The remaining alignments were not different, possibility because of the strict criteria used for admission of cadets at the AFA and the efficiency of the physical training that is performed periodically.

Keywords

Photogrammetry, postural asymmetry, air activity, movement.