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Conference Abstracts



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A119 | Anthropometric and endurance adaptations following a four-week micro-exercise regime among medical students

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Introduction: Micro-exercise, which involves short bursts of high-intensity activity, is emerging as a practical and time-efficient strategy to promote physical health, particularly in populations with limited time, such as medical students. Despite its potential, limited data exists on its effects on anthropometric outcomes and physical endurance among the medical student's population. This study aimed to assess the impact of a structured micro-exercise intervention on selected anthropometric and physical endurance parameters.

Methods: A total of 48 preclinical medical students were randomly assigned to control and intervention groups. The intervention group engaged in micro-exercise sessions four times per week. Anthropometric measurements (waist and hip circumference, body weight), muscular endurance (push-ups count), and cardiovascular recovery (pulse rate post-step test), were recorded pre- and post-intervention. Non-parametric tests (Wilcoxon Signed-Rank and Mann-Whitney U) were used due to non-normal data distribution.

Results: Significant within-group improvements were found in the intervention group for hip circumference ($p=0.002$), push-up performance ($p=0.001$), and pulse rate post-exercise ($p=0.022$). Between-group comparisons showed significant improvements in hip circumference ($p=0.011$) and push-ups ($p=0.047$). No significant changes in body weight were observed.

Conclusion: A four-week micro-exercise regimen resulted in measurable improvements in anthropometric indicators and physical endurance among medical students. These findings suggest micro-exercise as a promising tool for improving musculoskeletal and cardiovascular health. Extended duration and larger samples are recommended for future studies.

Keywords: micro-exercise, physical endurance, anthropometric outcomes, medical students

A120 | An analysis of olfactory fossa depth as a predictive factor for postsurgical cerebrospinal fluid leak

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Introduction: The olfactory fossa (OF) of the ethmoid bone exhibits its anatomical variations that may increase the risk of complications during endonasal endoscopic transsphenoidal surgery (ETSS), such as cerebrospinal fluid (CSF) leak. This study investigated the association between OF depth and CSF leak post-ETSS.

Methods: A retrospective case-control study was conducted using coronal computed tomography (CT) images from 57 patients across six Saudi Arabian health centers. Group I (controls) included patients who underwent CT scans for different indications, and Group II (cases) included those with post-ETSS CSF leak. The OF depth on both sides was classified using the Keros system. Fisher's Exact Test evaluated the associations between OF depth and CSF leak, with gender as a confounder. Univariate and multivariate risks were assessed using binary logistic regression.

Results: Type I OF was the most common on both right (64.9%) and left (61.4%) sides. A statistically significant association was observed between left OF depth and gender in the group without CSF leak ($p=0.03$), with Type I comprising 31.3% males and 68.8% females, and Type II comprising 68.8% males and 31.3% females. Univariate analysis revealed a negative association between OF depth and CSF leak risk on both sides: right (OR=0.54, CI:0.33–0.88) and left (OR=0.58, CI:0.37–0.91).

Conclusion: In the group without CSF leak, left OF Type I was the most common in females, while Type II was most common in males. Shallower OF depths were significantly associated with increased CSF leak risk post-ETSS, reiterating cautious ETSS to reduce complications.