
Musikphysiologie und Musikermedizin in anderen Publikationen

Englischsprachige Abstracts

Intraocular pressure fluctuations assessment in professional wind instrument players

NOYA-PADIN V, PENA-VERDEAL H, NORES-PALMAS N, GIRALDEZ MJ, YEBRA-PIMENTEL E
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Abstract: CLINICAL RELEVANCE: Due to the long-time that wind musicians spend playing their instruments, it is important to investigate if intraocular pressure could be affected by this activity.

BACKGROUND: To assess the intraocular pressure fluctuations and fluctuations affecting factors in professional wind musicians while playing different tones.

METHODS: Thirty professional wind musicians (23.0 ± 3.20 years) were recruited from the Professional Music College of A Coruña. A questionnaire about environmental/demographic factors was given to participants. Intraocular pressure was measured four times by ICare IC100 tonometer: before, during low and high-pitched tones, and immediately after stopping playing the wind instrument.

RESULTS: Pairwise comparison revealed statistical differences between measurement points (Sidak, all $p \leq 0.019$), except between before playing and while playing low-pitched tones (Sidak, $p = 1.000$). Intraocular pressure increases during high pitch playing and decreases after stopping playing. No significant differences in intraocular pressure fluctuation were reported between physically active (>2 days/week) and non-physically active participants (Unpaired t-test, $p = 0.680$). All intraocular pressure values were positively correlated (Pearson's correlation, all $r \geq 0.505$, $p \leq 0.004$). Intraocular pressure fluctuations were negatively correlated with musical playing years (Pearson's correlation, $r = -0.396$, $p = 0.030$). There were no significant correlations among intraocular pressure fluctuation and gender, age, weight, height, or daily time playing (Pearson's correlation, all $p \geq 0.058$).

CONCLUSION: Professional wind musicians suffer intraocular pressure peaks while playing high-pitched tones; therefore, ocular fundus evaluation and visual campimetry should be performed as routine tests in the visual exam of this population.