

ANXIETY, INTERNET ADDICTION AND PULSE WAVE ANALYSIS IN MEDICAL STUDENTS

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Psychosocial factors are related to cardiovascular risk. The present study aimed to assess the relationship between anxiety, internet addiction, and variables resulting from pulse wave analysis in medical students.

A total of 30 medical students, aged 24 ± 0.6 years, 80% female, underwent pulse wave analysis using a Mobil-O-Graph. Anxiety level and internet addiction were assessed using the Hamilton Anxiety Rating Score (HAM-A) and Internet Addiction Assessment questionnaire (IAA), respectively.

Central systolic blood pressure (SBPc), augmentation index and pressure (AI, AP), pulse wave velocity (PWV), IAA, and HAM-A scores were, as follows: 103 ± 9.62 mmHg, $25 \pm 10.62\%$, 7 ± 3.16 mmHg, 5 ± 0.38 m/s, 21 ± 1.96 and 29 ± 8.2 , respectively. The AI and PWV were increased for age in 50% and 23% of the study participants, respectively, and early vascular aging (EVA) was detected in 60% of the students. Significant correlations were obtained between IAA and several pulse wave variables, especially SBPc ($r=0.432$, $p<0.0001$), PWV ($r=0.21$, $p<0.0001$), and AP ($r=0.242$, $p<0.0001$). EVA was detected especially in participants with severe, moderate, and mild anxiety (39%, 39%, and 11%, respectively). More than half of the students with EVA (55.55%) had probable internet addiction.

Internet addiction and anxiety are associated with impaired pulse wave variables, early vascular aging, and an increased cardiovascular risk in medical students. Lifestyle must be carefully analyzed in young subjects in order to enable cardiovascular prevention.

Keywords: pulse wave analysis, pulse wave velocity, augmentation index, internet addiction, anxiety