

Antiepileptic treatment in patients with and without cardiovascular pathology

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We observed 50 patients with epilepsy and cardio-vascular diseases (CVD) and 50 patients without CVD who were treated with carbamazepine (CMZ) 25%, valproic acid (VPA) 26%, lamotrigine (LTG) 24% and levetiracetam (LEV) 25%. Each patient had clinical neurological examination, ECG, EEG, lipidogram, heart ultrasound (Tei-index, M-Strain, Strain % evaluation), carotid arteries dopplerography. In patients on CMZ sinus bradycardia, sick sinus syndrome, ventricular and supraventricular arrhythmias, rise of total cholesterol and low density lipoprotein were reliably more often than in patients on VPA, LTG and LEV ($p<0,01$). In patients on VPA rise of triglycerides, increase of intima-media thickness more than 0,7 mm were reliably more often than in patients on CMZ ($p<0,05$), LTG and LEV ($p<0,01$). Patients on VPA with CVD had lowest Tei-index and M-Strain ($p<0,01$) compared with patients without CVD after 6 months of treatment ($p<0,05$). That could be a predictor of diastolic heart dysfunction. We revealed heart rate and conductance disturbances in patients who were taking CMZ, VPA, LTG, increasing of cardiovascular risk parameters in patients taking CMZ, VPA. Patients on CMZ had more significant changes of lipidogram, but patients on VPA had worse results of carotid arteries dopplerography. Patients on VAL had negative inotropic effect that was more significant seen in patients with CVD ($p<0,01$) so we can say that VAL administration requires careful heart function monitoring in patients with heart failure and CMZ - in patients with arrhythmias. Also lipidogram and intima-media thickness should be checked more often in patients on VAL and CMZ.