

## P02-225 - MINIMAL INVASIVE MICRONEUROSURGERY TECHNIQUE FOR THE TREATMENT PSYCHIATRIC DISEASES

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**Introduction:** Investigations of Cerebral Blood Flow (CBF) by Single Photon Emission Tomography (SPECT) revealed hypoperfusion/ischemia in different parts of the brain in psychiatric diseases.

**Objective:** We analysed 8 patients with psychiatric illness, such as autism (3), depression with psychosis (1), obsessive-compulsive disorder (2), Parkinson Disease with hallucinatory syndrome (1), Cerebral Palsy with autistic syndrome (1) which were investigated and underwent neurosurgery. 7 patients were men, 1-woman. Age 3-34 years. Patients earlier got modern drugs therapy without success.

**Aims:** To open a new physiological way of treatment of psychiatric illnesses.

**Methods:** CT/MRI, EEG were performed in each case. We have possibilities investigate by SPECT. Studies of CBF performed by Transcranial Doppler Ultrasound (TCD) on Middle Cerebral Artery in both side. TCD included blood flow velocity (BFV)/Gosling Pulse Index (PIG). We are create new minimal invasive neurosurgery for revascularization of the brain in patients with psychiatric illness. Ligation of 2-4 branches of external carotid arteries are executed by all patients that had provided redirection/reinforcement of arterial blood flow into internal carotid artery pool. Local or minimal general anesthesia used. Patent of RF, currently abroad.

**Results:** In pre surgery in all patients BFV values were very low in compare with normal. PIG data always less on 30-55% to references. We accepted this trend as brain ischemia. After surgery positive correlation of TCD data and better psychiatric status was noted. Catamnesis tracked from 5 month till 5 years. No lethal cases and complications.

**Conclusions:** We considered that SPECT phenomenon of hypoperfusion and TCD signs of brain ischemia can play the essential role in pathogenesis of psychiatric diseases. Our surgery method is relatively simple and need not even in small trepanation and seriously anesthesiology provision.