glutamate. Through the two mechanisms, it encourages the plasticity and neuronal death, leading to alcohol dementia. The neurotrophic factors (NP), as well as the neurobiochemical mediators (acetylcholine type - ACh) play an important role in maintaining the neuronal plasticity with direct impact on the neurocognitive function. **Objective:** The acetylcholine diminishes quantitatively with senescence. The neurotransmitter deficiency is emphasized as well by the increase in the acetylcholinesterase activity. Biochemically, the pathological condition for a decrease of the efficiency of the neurotransmitter on the receiver is created. Regarding quality, the fluidity of the neuronal membrane can be improved by administering Brain Derived Neurotrophic Factor (BDNF), as neurotrophins play an important role in maintaining the neuronal plasticity and implicitly the synapse functionality. Thus, a bio-functional support is offered to the neurotransmitter (ACh) with a direct impact on the neurocognitive functionality, creating the possibility to associate cholinesterase inhibitors with neuroprotective substances. **Methods:** The open, prospective and comparative clinical trial, carried out in our section in the period between 2003 and 2006, included a lot of 18 patients, men aged over 55, with alcohol dementia (a diagnosis established clinically and with the Mini-Mental State Examination- MMSE- and Global Deterioration Scale-GDS), excluding other causes for dementia. Nine patients were administered cholinesterase inhibitors, while others received cholinesterase inhibitors with neuroprotective substances (Cerebrolysin) in therapeutic doses for 18 months. For the group with cholinesterase inhibitors and neuroprotective substances, clinical improvements and increases in the scores of the scale with an average of two-three points was noticed, compared with the other lot.

**Conclusions:** The association of the cholinesterase inhibitors with neuroprotective substances is in accordance with the neurobiochemical layer of the neurocognitive dysfunctionally induced by the chronic ethanol consumption. The neuroprotective factors increase the acetylcholine efficiency in dementia, improving the prognosis for this condition.

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**A PILOT RANDOMIZED DOUBLE BLIND CONTROLLED STUDY ON THE EFFICACY AND SAFETY OF RIVASTIGMINE IN CHINESE PATIENTS WITH SUBCORTICAL VASCULAR DEMENTIA**

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**Background and Objective:** This study aimed to evaluate the efficacy and safety of rivastigmine among Chinese patients with subcortical vascular dementia. **Methods:** Forty Chinese subjects with subcortical vascular dementia were randomized to either placebo (n = 20) or rivastigmine (n = 20) in a double blind, 26 week trial. Efficacy variables included change in mini-mental state examination (MMSE), frontal assessment battery (FAB), animal verbal fluency, neuropsychiatric inventory (NPI), instrumental activities of daily living (IADL), and total number of boxes in the clinical dementia rating scale (CDR). Safety variables included side effects, withdrawal rates, and mortality. **Results:** Although there was no statistical significant change from baseline between placebo and active groups in all the efficacy variables, a trend favoring benefits of the active group was seen in various executive measures (motor series, p = 0.092; perseveration errors in animal fluency, p = 0.095) and behavioral measures (irritability, p = 0.066; aberrant motor behavior, p = 0.068). Any side effects were seen more commonly in the active group (n = 14, 70%) compared to that in the placebo group (n = 10, 50%; p = 0.12). More patients in the active group withdrew (n = 8, 40%) compared to those in the placebo group (n = 3, 15%; p = 0.37). One patient in the placebo group died during the course of the study. **Conclusion:** Among Chinese patients with subcortical vascular dementia, rivastigmine exerts a favorable trend in either improving or maintaining various executive and behavioral measures. More side effects are associated with use of rivastigmine.

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**INCREASING THE EFFICACY OF IMMUNOTHERAPY FOR ALZHEIMER’S DISEASE (AD) WITH INTRAVENOUS IMMUNOGLOBulin (IVIG)**

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**Background:** We proposed that natural, human anti-Aβ antibodies might play a role in the development and/or progression of AD as murine polyclonal anti-Aβ antibodies were effective in treating APP-transgenic mice. Three reports offer preliminary evidence that natural human, polyclonal antibody preparations (IVIg) improve cognitive function in AD patients. In our study, infusion of IV Ig increased blood levels of anti-Aβ antibodies in AD patients. An interaction of anti-Aβ antibodies with Aβ in vivo was suggested by the shorter half life of the infused anti-Aβ antibodies in treated patients compared to anti-hepatitis B surface antigen antibodies also present in IV Ig. **Objective(s):** To identify the characteristics of therapeutically effective anti-Aβ antibodies in human blood that can be used to treat patients with AD. **Methods and Results:** The epitope specificity of anti-Aβ antibodies in AD patients induced by active immunization or associated with neuritic plaque density at autopsy was limited to the N terminal epitope but not the central region epitope of Aβ as determined by epitope-specific ELISA. In contrast, natural anti-Aβ antibodies present in unimmunized, non-demented humans included antibodies specific for both the N-terminal and central region epitopes. We also demonstrated that natural anti-Aβ antibodies are present in both IgM and IgG isotypes, include specificities for both Aβ monomers and assemblies, and are capable of inhibiting in vitro Aβ oligomerization as well as Aβ-induced neurotoxicity for N2A neuroblastoma cells using ELISA and MTT apoptosis assays. Importantly, only free anti-Aβ antibodies are measured by ELISA assay in which Aβ is the target. Most natural human anti-Aβ antibodies in blood are bound to Aβ peptide and therefore undetected by our ELISA. Support for this conclusion is the fact that dissociation of natural anti-Aβ antibody-Aβ complexes by low pH or urea increased the amount of free anti-Aβ antibodies detected by ELISA 10 to 100 fold. After dissociation anti-Aβ antibodies have a higher avidity for and associate rapidly with Aβ. **Conclusions:** These results suggest that isolation of natural, human anti-Aβ antibodies following their dissociation from Aβ permits the creation of a more potent, human, polyclonal anti-Aβ antibody preparation for passive immunotherapy of AD patients.

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**ASSESSING CAPACITY TO GIVE INFORMED CONSENT IN OUTPATIENTS WITH MILD-TO-MODERATE ALZHEIMER’S DISEASE**

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**Background:** Informed consent requires that a study volunteer understand the purposes, procedures, and the risks and benefits of the study, and agrees, without coercion, to participate in the study. Outpatients with mild-to-moderate Alzheimer’s disease (AD) may lack decisional capacity or have diminished autonomy. While there is no consensus on how to reliably assess autonomy or decision-making capacity in this group of patients, studies that have trained researchers to use standardized questions on key domains of decisional capacity have produced valid results with good inter-rater reliability. **Objective:** The objective of this study is to develop an instrument that can be used to assess capacity to give informed consent. **Methods:** We have developed a 13-question assessment of capacity to give informed consent that queries potential research subjects on...