P4-196 PREVALENCE OF COGNITIVE IMPAIRMENT AND ASSOCIATED FACTORS IN OLDEST-OLD RESIDENTS WITHIN THE BRAZILIAN COMMUNITY

Josiane Budni[1], Ana Carolina Brunatto Falchetti Campos[1], Iara Gonçalves Teixeira[1], Nayara de Souza Moraes[1], Isabela de Jesus Cadorin[1], Ângela Mota[1], Raíssa Cardoso Figueiredo[1], Ewa Kucharska[2], Maria Inês Rosa[1], Luciane Bisognin Ceretta[1], João Quevedo[1,3], *[1]University of Southern Santa Catarina, Criciúma, Brazil; [2]Akademia Ignatianum in Krakow, Faculty of Education, Institute of Educational Sciences, Krakow, Poland; [3]The University of Texas Health Science Center at Houston, Houston, TX, USA. Contact e-mail: josiane.budni@unesc.net*

Background: The oldest-old (aged ≥80 years) are the fastest growing age group, with the highest risk of cognitive impairment and dementia. The cognitive impairment has received great attention because it is one of the main areas that strongly affects public health and cause social problem. The aim of this study was to assess the prevalence and factors associated with cognitive impairment in community-dwelling oldest-old. **Methods:** This was a cross-sectional study. The research population consisted with elderly of age ≥80 of the public health. The interviews were accomplished out by household survey, through a socio-demographic and health questionnaire, the mini-mental state exam (MEEM), the depression Scale (CES-D) and, the Generalized Anxiety Disorder (GAD-7). This is part of a Macro-Project which was submitted to the Research Ethics Committee of the University (UNESC), and has approval number 1.032.742. **Results:** 165 oldest-old were interviewed. The participants were older (mean 84.8±3.6 years), predominantly female (63%) with the mean of education in years of 2,9 ± 1,8. The systemic arterial hypertension appears to be the most prevalent amongst the elderly at 75.8%. More than 90% of the elderly subjects surveyed use some type of medication, among which the most common are blood pressure pills 95.2%. A performance poor in the MEEM was found in 58 (35,2%) elderly. There is a presence of depressive and anxious symptoms in the elderly, showing a prevalence of 46.7% (77) and 12.7% (21), respectively. After adjustment for confounding factors, body mass index (BMI), total elderly income, functional disability and anxiety were associated with cognitive impairment. **Conclusions:** The study provides basic information relating to cognitive impairment in the oldest-old living within the Brazilian community. Demographic data plays an important role in the prevalence of cognitive impairment, with the functionality of the elderly, their BMI, chronic diseases such as hypertension and the use of antihypertensive medication, as well as generalized anxiety appearing as innovative data, which makes this study differentiated, since often the literature approaches depression as a factor associated with cognitive impairment, and little is said about generalized anxiety.

P4-197 CLINICAL BENEFITS OF ORAL TRAMIPROSATE IN APOE4/4 HOMOZYGOTES WITH MILD ALZHEIMER'S DISEASE: RESPONDER ANALYSES FROM THE PHASE 3 NORTH AMERICAN TRIAL

Susan Abushakra[1], Anton P. Porsteinsson[2], Carl H. Sadowsky[3], *[1]Alzheon, Inc., Framingham, MA, USA; [2]University of Rochester School of Medicine and Dentistry, Rochester, NY, USA; [3]Nova SE University, Fort Lauderdale, FL, USA. Contact e-mail: susan.abushakra@alzheon.com*

Background: ALZ-801, an oral pro-drug of tramiporsate, received Fast Track designation for development as a disease modifying treatment for AD. ALZ-801 provides consistent plasma levels of the active agent tramiprosate with improved PK and GI tolerability (Hey et al. 2018). Tramiprosate inhibits formation of toxic soluble amyloid oligomers (Kocis et al. 2017) and was evaluated in Mild to Moderate AD patients. In the North American Phase 3 trial, patients homozygous for apolipoprotein e4 allele (APOE4/4) showed meaningful benefits in Mild AD patients (Abushakra et al. 2016 & 2017). We analyzed individual responses and response rates on the clinical outcomes. **Methods:** The 78-week NA trial enrolled 1,053 AD patients (MMSE16-26) to either placebo, tramiprosate 100mg BID, or 150mg BID; including 148 APOE4/4 homozygotes. At 150mg BID, APOE 4/4 homozygous patients with Mild AD showed significant and/or meaningful benefits on ADAS-cog and CDR-SB (co-primary endpoints) and DAD (disability assessment). For APOE4/4 Mild subgroups, individual changes from baseline were plotted for placebo and high dose (waterfall analysis). Responders were defined by changes on ADAS-cog ≤0 and CDR-SB ≤0 (no worsening); and DAD worsening ≤4 points. Responder analyses were conducted using Fisher's exact test. **Results:** The APOE4/4 Mild subgroups in the high dose and placebo arms included n=65 (MMSE ^{3}20) and n=50 (MMSE ^{3}22). In MMSE ^{3}20 group, responder proportions were: ADAS-cog 57% vs. 21% (p= 0.011), CDR-SB 35% vs. 25% (NS), and DAD 46% vs 18% (p= 0.039). In MMSE ^{3}22 group, they were: ADAS-cog 67% vs. 24% (p= 0.011), CDR-SB 44% vs. 29% (NS), and DAD 56% vs. 20% (p= 0.024). Safety in the APOE4/4 subgroup was favorable, and the most common dose-dependent TEAE were nausea, vomiting, and weight loss (Abushakra et al, 2017). **Conclusions:** The responder analyses show that tramiprosate/ALZ-801 provides significant and meaningful benefits in APOE4/4 patients with Mild or Early AD. At the 150mg BID dose, approximately 57-67% of patients remained cognitively stable, and 46-56% had minimal or no functional decline over 1.5 years. These results will inform cut-off points for responder analyses in confirmatory ALZ-801 efficacy trials in this genetically defined AD population with high amyloid burden.

P4-198 MEDITATION-MUSIC AND DIET ARE EFFECTIVE HOLISTIC APPROACHES TO STRENGTHEN NEUROPLASTICITY, BOOST IMMUNE SYSTEM AND MAINTAIN SYNAPTIC CONNECTIONS BETWEEN NEURONS TO COMBAT ALZHEIMER'S, DEPRESSION AND OTHER RELATED DISORDERS

Shyamala Mruthinti, *Medical College of GA, Veterans Medical Administration and Datta ImmunoChem, Inc., Mableton GA, USA; Veterans Medical Administration, Augusta, GA, USA; Emory University, Atlanta, GA, USA; Datta ImmunoChem, Inc., Mableton, GA, USA; Datta ImmunoChem, Inc., Mableton GA, USA; Medical College of GA, Augusta, GA, USA. Contact e-mail: mruthsh@gmail.com*

Background: Amyloid-mediated pathology that is centered on Aβ42 is central to the oxidative stress and inflammatory cascade of events occurring in Alzheimer's disease (AD) brain. Among the several oxidative- stress pathways that occur in the brain, formation advanced glycation end products or AGEs accumulating near the vicinity of senile plaques could be one of the "age-related" factors contributing toward AD-pathology. AGEs generate free radicals during their formation and they invoke immune and inflammatory responses both in the periphery and in brain tissues. We now have significant data to indicate that in AD, plasma titers of antibodies to these two proteins exist in concentrations several fold greater than in samples derived from healthy age-matched seniors. However, the desire to eat sugar is more prominent in those who