Results: Significant difference was found between the galantamine group and the donepezil group in the score variation of MMSE (12w: p<0.05, 24w: p<0.01), NPI (12w: p<0.05, 24w: p<0.001), and J-ZBI (24w: p<0.001). The NIRS measurement was observed to tend to reduce oxyhemoglobin suppression in CH8 channel centered on the superior frontal gyrus.

Conclusions: In this study, administering galantamine in AD patients that inhibit the reduction of cerebral blood flow in the prefrontal area and improve clinical symptoms overall, cognitive function, thereby reducing the care burden of caregivers was suggested.

PT598 Therapeutic potential of mesenchymal stem cells from different sources
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Abstract
Objective: MSCs that have been isolated from different sources are expected to possess different secretion patterns which might influence the therapeutic mechanism in the disease environment.

Introduction: Through their paracrine effects such as immunomodulation and trophic functions, mesenchymal stem cells (MSCs) have been reported to possess the therapeutic potential to be used as a viable treatment for various diseases. MSCs can be isolated from different sources including adipose tissue, bone marrow, placenta and Wharton’s Jelly(WJ), and be expanded in vitro. Although they possess similar characteristics, the source of origin of the MSCs is thought to affect the overall secretion patterns and thus their applications in the disease environment.

Methods: MSCs from different sources (adipose, bone marrow, placenta, WJ) were cultured in serum free MEM-

Discussion: Significant increase of plasma ketone concentration after 20g ingestion of MCTs may have a positive effect on cognitive functions, particularly working memory and executive function. The therapeutic potential of MCTs represents a promising new area of dementia research.

EATING DISORDERS: PT600 – PT600

PT600 Oleoylethanolamide Modulates Human Neural Responses to Food Stimuli in Obesity
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Abstract
Background: Obesity has emerged as a leading health threat and major risk factor for type 2 diabetes, cardiovascular disease, and hypertension. The neurobiological basis of overeating remains insufficiently known, hampering sufficient intervention strategies. Here we investigate oleoylethanolamide, an agonist of PPAR-α. It has been implicated in weight regulation in animals but its respective role in humans is still unclear.

Methods: Associations between plasma oleoylethanolamide, BMI and associated neurobiological impact (fMRI response to food stimuli) in 21 obese patients (BMI≥30) and 24 controls were investigated. We hypothesized that oleoylethanolamide interacts with BMI and fMRI response to food stimuli and may be affected in obese patients.

Results: Associations between oleoylethanolamide and BMI differed significantly depending on whether subjects were obese or not (P=0.02). For obese individuals, oleoylethanolamide showed a trend towards a positive correlation with BMI (P=0.06, rho=0.42) while this relationship was inverse for controls (P=0.07, rho=-0.34). We observed significant interactions between oleoylethanolamide and obesity on food-related brain activation in cortical areas associated with reward processing and interoceptive signaling (P=0.009). fMRI-investigation of food-craving suggests that identified brain areas may be involved in suppressing ‘liking’ of food, in non-obese subjects.