ADULT HIPPOCAMPAL NEUROGENESIS AND AMYLOID-β: REPRODUCIBILITY OF A SPORADIC ALZHEIMER'S DISEASE MODEL

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BACKGROUND

- ▶ Alzheimer's Disease (AD)
- ▶ >95% sporadic form
- ▶ Cognitive decline (dementia)
- ▶ Hippocampal and cortical atrophy

Adult Hippocampal Neurogenesis (AHN)

AHN & Sporadic AD

- ↓↓↓ ▶ Rodent [1-3] and Human [4-6]
- ↑↑ ▶ Rodent [7] and Human [8,9]
- = ▶ Rodent [10]

METHODS

AIM

Characterization of adult hippocampal neurogenesis in a rat model of the initial stages of sporadic AD

RESULTS

▶ AHN in the dorsal DG

▶ Behaviour characterization

▶ Soluble Aβ₁₋₄₂ levels (ELISA)

▶ Aβ deposition (Congo red)

▶ Neuroinflammation

▶ Aβ₁₋₄₂ peptide toxicity upon Tyrosine kinase B (TrkB) receptors (WB)

CONCLUSION

Cellular, molecular and phenotypic characterization of a previously validated rat model of AD obtained by Aβ₁₋₄₂ peptide infusion supports the high variability of results in the literature associated with sporadic AD rodent models