

## VP168 Assessment Of Plasmapheresis For Alzheimer's Disease Systematic Review

### AUTHORS:

Setefilla Luengo-Matos, Mar Polo-Desantos, Luis María Sánchez-Gómez ([luism.sanchez@isciii.es](mailto:luism.sanchez@isciii.es)), Juan Pablo Chalco Orrego

### INTRODUCTION:

Alzheimer's disease (AD) is the most common type of dementia. Plasmapheresis is a procedure consisting of removing the plasma, or specific elements which are considered to be involved in pathological processes. Plasmapheresis could reduce the A beta peptides load in the brain. The objective is to study the safety and efficacy of plasmapheresis for AD.

### METHODS:

Systematic review, with all studies published before April 2016 reviewed. Selected studies included patients with AD treated with plasmapheresis. GRADE was used to assess quality. Efficacy outcomes include: (i) Cognitive, functional and behavior status, through Mini Mental State Examination, and Alzheimer Disease Assessment Scale-Cognitive test; (ii) Plasma and cerebrospinal fluid A beta levels; (iii) Brain-imaging and functional neuroimaging studies. Safety outcomes included side effects related to the treatment.

### RESULTS:

Two papers reporting results from three studies were selected: (i) pilot study (n = 10), (ii) its extended study (12 months more of follow-up) (n = 7), and (iii) clinical trial (n = 39). The quality of evidence was very low. About efficacy, the studies didn't report quantitative results and were inconclusive. The pilot study and its extended study reported (1): a tendency towards stabilization in cognitive status; the plasma levels of A beta peptides didn't show a clear pattern; and the brain-imaging assessment suggested a progressive volume increase in the hippocampus. The clinical trial reported in the experimental group vs control (2): a better score for the cognitive status; an increase of

plasma A beta peptides; and did not find significant differences between groups for cerebrospinal fluid A beta peptides. The brain-imaging assessment showed a progressive loss of hippocampus volume in both groups. Regarding safety, the studies didn't report quantitative data. We didn't find economic evaluation studies.

### CONCLUSIONS:

The included studies had very high risk of bias and very low quality. We found no evidence on efficacy and safety of plasmapheresis treating AD. Plasmapheresis isn't a priority line in research of AD treatment.

### REFERENCES:

- 1.- Boada M, Ortiz P, Anaya F, et al. Amyloid-Targeted therapeutics in Alzheimer's disease: use of human albumin in plasma exchange as a novel approach for AB mobilization. *Drug News Perspect* 2009;22(6):325-39.
- 2.- Boada M, Ramos-Fernandez E, Guivernau B, et al. Tratamiento de la enfermedad de Alzheimer mediante terapia combinada de aféresis terapéutica y hemoféresis con albúmina e inmunoglobulina intravenosa: fundamentos y aproximación terapéutica al estudio AMBAR (Alzheimer Management By Albumin Replacement). *Neurología* 2016;31(7):473-81.

---

## VP169 Grouping Treat-to-Target Studies In Systematic Reviews

### AUTHORS:

Marrissa Martyn-St James ([m.martyn-stjames@sheffield.ac.uk](mailto:m.martyn-stjames@sheffield.ac.uk)), Emma Hock, Ruth Wong, Matt Stevenson, Allan Wailoo

### INTRODUCTION:

A Health Technology Assessment (HTA) systematic review was undertaken in rheumatoid arthritis (RA) of treat-to-target (TTT) studies (n = 16) in which studies were grouped according to: TTT versus usual care, trials comparing different targets, or trials comparing different treatment protocols. To our knowledge, this