Comparative Efficacy of Double-Filtration Plasmapheresis Versus Intravenous Methylprednisolone in Acute Attacks of Neuromyelitis Optica Spectrum Disorder: A Prospective Cohort Study

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STROBE Checklist for Cohort Studies

This checklist is completed for the manuscript "Comparative Efficacy of Double-Filtration Plasmapheresis Versus Intravenous Methylprednisolone in Acute Attacks of Neuromyelitis Optica Spectrum Disorder: A Prospective Cohort Study".

Item No.	STROBE Item	Location in Manuscript	Response/Description
1	**Title and abstract** Indicate the study's design with a commonly used term in the title or the abstract	*Title, Abstract*	Title: "Prospective Cohort Study"; Abstract: "prospective single-center cohort study"
2	**Abstract** Provide in the abstract an informative and balanced summary of what was done and what was found	*Abstract*	Abstract includes objectives, methods, results, and conclusions
3	**Introduction** Explain the scientific background and rationale for the investigation being reported	*Introduction*	Background and rationale provided in Introduction paragraphs 1-2
4	**Introduction** State specific objectives, including any prespecified hypotheses	*Introduction, last paragraph*	"This study aimed to directly compare..."; hypotheses clearly stated
5	**Methods** Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	*Methods: Design, Study subjects*	Single-center study at Renji Hospital; dates: Nov 2017 - May 2024
6	**Methods** Give the eligibility criteria, and the sources and methods of selection of participants	*Methods: Study subjects*	Inclusion and exclusion criteria clearly defined
7	**Methods** Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers	*Methods: Observational and outcome measures*	Primary outcome: ΔEDSS; secondary outcomes defined; confounders addressed in statistical analysis
8	**Methods** For each variable of interest, give sources of data and details of methods of assessment	*Methods: Observational and outcome measures*	EDSS, mRS, laboratory parameters clearly described
9	**Methods** Describe any efforts to address potential sources of bias	*Methods: Statistical analysis*	Multivariable regression used to adjust for confounders

10	**Methods** Explain how the study size was arrived at	*Methods: Statistical analysis*	"Given NMOSD's rarity, the sample size (N = 146) was determined by available cases..."
11	**Methods** Explain how quantitative variables were handled in the analyses	*Methods: Statistical analysis*	Continuous variables expressed as mean ± SD or median (quartiles) as appropriate
12	**Methods** Describe all statistical methods, including those used to control for confounding	*Methods: Statistical analysis*	All statistical methods clearly described, including regression models
13	**Methods** Describe any methods used to examine subgroups and interactions	*Methods: Statistical analysis*	Subgroup analyses described; interaction term between treatment and baseline EDSS included
14	**Methods** Describe any sensitivity analyses	*Methods: Statistical analysis*	Sensitivity analyses for first-attack patients and AQP4-IgG positive patients described
15	**Results** Report numbers of individuals at each stage of study	*Results: Baseline characteristics*	Flow of participants through each stage of study clearly reported (n=149 assessed, n=146 analyzed)
16	**Results** Give reasons for non-participation at each stage	*Results: Baseline characteristics*	3 excluded due to treatment intolerance (2 DFPP, 1 IVMP)
17	**Results** Consider use of a flow diagram	*Results: Figure 1*	Flow diagram provided as Figure 1 (see separate STROBE flow diagram)
18	**Results** Give characteristics of study participants	*Results: Baseline characteristics; Table 1*	Demographic and clinical characteristics provided in Table 1
19	**Results** Indicate number of participants with missing data for each variable of interest	*Methods: Statistical analysis*	"A complete-case analysis approach was used"; patients with missing EDSS excluded
20	**Results** Report numbers of outcome events or summary measures	*Results sections; Tables 2, 3*	Outcome data comprehensively reported in text and tables
21	**Results** Give unadjusted estimates and confounder-adjusted estimates	*Results: Comparative effectiveness*	Both unadjusted (OR=0.89) and adjusted estimates (aOR=0.92) reported
22	**Results** Report category boundaries when continuous variables categorized	*Results: Efficacy outcomes of DFPP cohort*	ΔEDSS categorized as >0, 0.5, 1.0, ≥1.5 with clear boundaries

23	**Results** Report any other analyses performed	*Results: Subgroup analyses*	Subgroup analyses for treatment modalities and AQP4-IgG positive patients reported
24	**Discussion** Summarize key results with reference to study objectives	*Discussion, first paragraph*	Key results summarized with reference to initial objectives
25	**Discussion** Discuss limitations of the study, considering sources of potential bias	*Discussion, Limitations paragraph*	Three key limitations discussed: single-center design, non-randomized allocation, short follow-up
26	**Discussion** Give a cautious overall interpretation of results	*Discussion, Conclusion paragraph*	Interpretation is cautious and appropriate to the study design
27	**Discussion** Discuss the generalizability (external validity) of the study results	*Discussion, Limitations paragraph*	Generalizability discussed as a limitation of single-center design
28	**Other** Give the source of funding and the role of the funders	*Funding Statement*	Funding sources clearly acknowledged; no role of funders stated (implied no involvement)
29	**Other** Describe where the protocol can be accessed	*Methods: Ethics*	Study was not registered as a clinical trial as per Methods section
30	**Other** Indicate whether a protocol exists and where it can be accessed	*Methods: Ethics*	Protocol not publicly available but approved by ethics committee