

## Comparison of the Results of a Parkinson's Holter Monitor with Patient Diaries, in Real Conditions of Use: A Sub-Analysis of the MoMoPa-EC Clinical Trial

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**Abstract :** Background: Monitoring motor symptoms in Parkinson's patients is often a complex and time-consuming task for clinicians, as Hauser's diaries are often poorly completed by patients. Recently, new automatic devices (Parkinson's holter: STAT-ON®) have been developed capable of monitoring patients' motor fluctuations. The MoMoPa-EC clinical trial (NCT04176302) investigates which of the two methods produces better clinical results. In this sub-analysis, the concordance between both methods is analyzed. Methods: In the MoMoPa-EC clinical trial, 164 patients with moderate-severe Parkinson's disease and at least two hours a day of Off will be included. At the time of patient recruitment, all of them completed a seven-day motor fluctuation diary at home (Hauser's diary) while wearing the Parkinson's holter. In this sub-analysis, 71 patients with complete data for the purpose of this comparison were included. The intraclass correlation coefficient was calculated between the patient diary entries and the Parkinson's holter data in terms of time On, Off, and time with dyskinesias. Results: The intraclass correlation coefficient of both methods was 0.57 (95% CI: 0.3-0.74) for daily time in Off (%), 0.48 (95% CI: 0.14-0.68) for daily time in On (%), and 0.37 (95% CI: -0.04-0.62) for daily time with dyskinesias (%). Conclusions: Both methods have a moderate agreement with each other. We will have to wait for the results of the MoMoPa-EC project to estimate which of them has the greatest clinical benefits. Acknowledgment: This work is supported by AbbVie S.L.U, the Instituto de Salud Carlos III [DTS17/00195], and the European Fund for Regional Development, 'A way to make Europe'.

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