



Clinical and Radiological Follow-Up of a Pfizer-BioNTech COVID-19 Vaccine-Induced Hemichorea-Hemiballismus

CASE REPORT

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ABSTRACT

Background: Hemichorea-hemiballismus is a rare hyperkinetic movement disorder.

Case Report: A 90-year-old male developed left hemichorea-hemiballismus after his second dose of the Pfizer-BioNTech COVID-19 vaccine. A wide range of investigations including magnetic resonance imaging did not reveal an alternative cause. [18F]-fluorodeoxyglucose-positron emission tomography (FDG-PET) showed increases in right putamen fixation compared to the left side. The patient showed significant improvement after five days of intravenous corticosteroids, with a normal FDG-PET.

Discussion: This hemichorea-hemiballismus case shows dynamic restoration of putamen metabolism mirroring clinical evolution after administration of corticosteroids, suggesting an autoimmune COVID-19 vaccine-induced reaction.

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KEYWORDS:

Hemichorea; hemiballismus; vaccine; FDG-TEP; COVID-19

TO CITE THIS ARTICLE:

Batot C, Chea M, Zeidan S, Mongin M, POP G, Mazoyer J, Degos B. Clinical and Radiological Follow-Up of a Pfizer-BioNTech COVID-19 Vaccine-Induced Hemichorea-Hemiballismus. *Tremor and Other Hyperkinetic Movements*. 2022; 12(1): 16, pp. 1–6. DOI: <https://doi.org/10.5334/tohm.688>

