

A case of functional lingual tremor-like dyskinesia after COVID-19 vaccine

*Benedetta Demartini*¹⁻²⁻⁷, V. Nisticò¹⁻²⁻³, F. Wiedenmann⁴, A. Baccara⁴, L.M. Romito⁵, A. Priori¹⁻²⁻⁶, O. Gambini¹⁻²⁻⁷

¹Dipartimento di Scienze della Salute, Università degli Studi di Milano, Milano, Italy

²“Aldo Ravelli” Research Center for Neurotechnology and Experimental Brain Therapeutics, University of Milan, Milan, Italy

³Dipartimento di Psicologia, Università degli Studi di Milano-Bicocca, Milano, Italy

⁴Scuola di Specializzazione in Psichiatria - Università degli Studi di Milano, Milano, Italy

⁵Department of Clinical Neurosciences, Parkinson and Movement Disorders Unit, Fondazione IRCCS Istituto Neurologico "C.Besta", Milan, Italy

⁶III Clinica Neurologica, Presidio San Paolo, ASST Santi Paolo e Carlo, Milano, Italy

⁷Unità di Psichiatria 52, Presidio San Paolo, ASST Santi Paolo e Carlo, Milano, Italy

Introduction: COVID-19 vaccination program is currently involving billions of people worldwide and the presumed side effects of the vaccine are under the scrutiny of the scientific community. Among others, functional neurological symptoms (FNS) have been reported [1,2].

Objective: To describe the case of a patient who presented functional tremor-like dyskinesia of the tongue 3 days after the vaccination against COVID-19 (Moderna-Spikevax).

Methods: AM, a 20 years old Italian female, suddenly developed a lingual dyskinesia, then replaced by lingual tremor, increasing when she was in tension. EEG and MRI appeared without alteration; neurological examination described only a variable tremor-like movement of the tongue, partially reduced by distracting maneuvers; psychiatric examination showed initial insomnia, anxiety symptoms and depressed mood during the previous year. Final diagnosis was a functional dyskinesia of the tongue, precipitated by COVID-19 vaccine, in the context of a probable adjustment disorder with mixed anxiety and depressed mood. A follow-up in a tertiary level specialized clinic for FNS, with psychiatric and psychotherapeutic input, was recommended. At the following evaluations, the lingual symptomatology appeared stabilized, but the anxiety and depressed mood persisted; hence, sertraline 50mg/die was recommended.

Conclusions: The precipitating factors for the development of FNS after COVID-19 vaccination are likely to be ascribed to expectations, beliefs, arousal, and emotional processing, especially in people with biological, social, and/or psychological predisposition [1]. This issue should be dealt on two levels: primary and secondary prevention. First, it would be useful to share vaccine safety data with recipients, to allay their excessive emotional involvement and anxiety; second, prevent the misdiagnosis of FND should be a goal of scientific literature. This could be achieved by studying and acknowledging FND as a possible side effect of the COVID-19 vaccine, in order to be able to promptly recognize the nature of the symptom and to investigate it with adequate examination.

References:

[1] Linden S.C, Carson A.J, & Wessely S (2021). Functional neurological disorder after vaccination: a balanced approach informed by history. The journal of the Royal College of Physicians of Edinburgh, 51(4), 330-331. Doi: 10.4997/JRCPE.2021.403.

[2] Ercoli T, Lutzoni L, Orofino G, Muroli A, & Defazio G (2021). Functional neurological disorder after COVID-19 vaccination. Neurological Sciences, 42(10), 3989-3990. Doi: 10.1007/s10072-021-05504-8.