

AperTO - Archivio Istituzionale Open Access dell'Università di Torino

**MS Italian patients manifesting natalizumab-related PML between 2009 and 2014. Report of the Italian group for MS-PML study**

**This is a pre print version of the following article:**

*Original Citation:*

*Availability:*

This version is available <http://hdl.handle.net/2318/1757439> since 2020-10-01T14:41:32Z

*Publisher:*

SAGE PUBLICATIONS LTD

*Terms of use:*

Open Access

Anyone can freely access the full text of works made available as "Open Access". Works made available under a Creative Commons license can be used according to the terms and conditions of said license. Use of all other works requires consent of the right holder (author or publisher) if not exempted from copyright protection by the applicable law.

(Article begins on next page)

**Abstract:** P1146

**Type:** Poster

**Abstract Category:** Others

**Objective:** To describe the progressive multifocal leukoencephalopathy (PML) and immune reconstitution inflammatory syndrome (IRIS) course, treatment and outcomes and to describe the features of epileptic seizures.

**Design and methods:** clinical and neuroradiological data of 34 MS patients who manifested natalizumab-related PML from November 2009 to December 2014 were obtained from 25 Italian Multiple Sclerosis (MS) Centres and analyzed in the current work.

**Results:** 29/34 patients survived to PML. 3 patients died within 6 months from the PML insurgence due to JC virus (JCV) brain infection and 2 patients died within 3 years due to long term bed immobility. PML disability peak was observed at the 6<sup>th</sup> month (mean EDSS increases of 1.2 points compared to the time of PML insurgence) and, at one year follow up, the mean EDSS still was 0.7 points higher compared to the time of insurgence. 29 patients were positive to JCV antibodies (the data is not available yet for 5 patients); higher number of CSF virus copies was related to the worse clinical course or death. Lower MRI lesion widening and monofocal presentation were related to a better clinical evolution, except for the subtentorial lesion locations.

19/34 patients manifested IRIS and a subacute clinical worsening in the first 5 months after PML onset; 15 out of the above 19 patients were treated with intravenous steroids with clinical improvement.

Epileptic seizures were observed in 10/34 patients (29.5%), 2 of them at PML onset, 5 during IRIS and 3 after PML recovery. 2 patients were presenting with generalized tonic-clonic seizures, 1 with status epilepticus and 7 with focal attacks. Drugs showed poor efficacy during the acute phase of epilepsy, however their efficacy improved over time.

**Conclusions:** Most of patients survived to PML but manifested a slightly long term worsening of their clinical condition. Steroid treatment of IRIS might reverse the IRIS-related disability increment. Epileptic seizures were commonly observed in PML and a progressive improvement of pharmacological response can be expected during the follow-up.

**Disclosure:**

Nicola de Rossi: nothing to disclose.

Cinzia Cordioli: nothing to disclose.

Simonetta Gerevini: nothing to disclose.

Maria Pia Amato has received research Grants and honoraria as a speaker and member of advisory boards by Biogen Idec, Merck Serono, Bayer, Novartis, Teva, Sanofi, Genzyme and Almirall.

Fabio Bandini: nothing to disclose.

Paola Cavalla: nothing to disclose.

Marinella Clerico: nothing to disclose.

Marco Capobianco received consultancy fees or speaker compensations from Biogen-Idec, Sanofi-Genzyme, Novartis, Merck-Serono, TEVA.

Luciano Deotto: participation in clinical trials of Bayer, Merck Serono, Teva, Novartis, Biogen Idec, Almirall.

Milena De Riz: nothing to disclose.

Ernesta Ferrari: nothing to disclose.

Cristina Scarpazza: nothing to disclose.

Maria Letizia Fusco: nothing to disclose.

Angelo Ghezzi has served on scientific advisory boards for Merck Serono, Novartis, Biogen Idec, Teva, Pharmaceutical Industries Ltd.; has received speaker honoraria from Merck Serono, Biogen Idec, Bayer Schering Pharma, Sanofi-Genzyme, Novartis, Serono Symposia International, Almirall.

Luigi Grimaldi: nothing to disclose.

Alessandra Lugaresi è Consulente di Bayer Schering, Biogen Idec, Merck Serono e Genzyme. Ha ricevuto rimborso

spese di viaggio e onorari da Bayer Schering, Biogen Idec, Merck Serono, Novartis, Sanofi Aventis e Teva; inoltre sono stati erogati finanziamenti all'Università di afferenza e assegni di ricerca da parte di Bayer Schering, Biogen Idec, Merck Serono, Novartis, Sanofi Aventis e Teva. La Prof.ssa Lugaressi ha anche ricevuto sovvenzioni di viaggio e di ricerca della Associazione Italiana Sclerosi Multipla ed è stata consulente della 'Fondazione Cesare Serono'.

Lucia Moiola: honoraria for speaking from Biogen Idec, Sanofi Aventis e Merck Serono

Patrizia Perrone: nothing to disclose.

Luca Prosperini has received consulting fees and/or fees, and/or travel grants from Bayer Schering, Biogen Idec, Genzyme, Novartis, and Teva.

Monica Rezzonico: ha parlato con retribuzione da parte di IMS Health e Mc CANN Complete Medical srl e sono stata sponsorizzata a congressi da dompè, biogenidec, serono, bayer, teva, novartis, aventis, baxter.

Marco Rovaris: Travel grants and fees for scientific consultancies from Almirall, Bayer-Schering, Biogen Italia, Novartis, TEVA Italia.

Giuseppe Salemi received grants from Merck Serono, Biogen-Idec, Teva, Novartis, Bayer, and Sanofi-Aventis.

Marco Salvetti: M. Salvetti receives research support and has received fees as speaker from Sanofi-Aventis, Biogen, Bayer Schering, and Merck Serono. He also receives research support from the Italian MS Foundation (FISM).

Santuccio: nothing to disclose.

Claudio Solaro: served as advisory board the following companies: Biogen Idec, Merck Serono. He received speaking honoraria from Bayer Schering, Biogen Idec, Merck Serono, Almirall, Teva, Genzyme. He received research grants and support by the FISM (Fondazione Italiana Sclerosi Multipla).

Carla Tortorella: nothing to disclose.

Ruggero Capra: lecture and consulting fees from Biogen-Idec, Sanofi Aventis and Novartis.