

## Speech impairment after the delivery as a first sign of sclerosis multiplex

Petr Hubka

Department of Gynecology and Obstetrics, 1<sup>st</sup> Faculty of Medicine, Charles University in Prague and Bulovka Hospital

Correspondence: MUDr. Petr Hubka, Ph.D., Department of Gynecology and Obstetrics, 1<sup>st</sup> Faculty of Medicine, Charles University in Prague and Bulovka Hospital, Budínova 67/2, 180 81, Prague 8, Czech Republic, phone: +420 266 083 294, e-mail: petr.hubka@lf1.cuni.cz

Published: 9. 6. 2022  
Actual Gyn 2022, 14, 38-40

Received: 20. 5. 2022  
ISSN 1803-9588

Accepted: 6. 6. 2022  
© 2022, Aprofema s.r.o.



Free fulltext article at [www.actualgyn.com](http://www.actualgyn.com)

Cite as: Hubka P. Speech impairment after the delivery as a first sign of sclerosis multiplex. Actual Gyn. 2022;14:38-40

### Case report

#### Abstract

This clinical case describes an aphasia after the vaginal delivery at 39 years old primigravida in term as a first manifestation of multiple sclerosis. Early postpartum episode was complicated by hypotonia and anemia. On the third day patient presented herself with anxiety, dysphasia and instability. The working diagnose was ischemic stroke of unknown length and computerized tomography (CT) was done. During the afternoon patient presented with transitory mydriasis on left eye and her status deteriorated to severe dysphasia/aphasia and enhanced reflexes on the right side. Despite CT not displaying any changes (bleeding), nor occlusions, the conclusion of neurologist remained cerebral ischemia. Results were consulted with tertiary center and conservative treatment was recommended.

Next day due to aphasia magnetic resonance imaging (MRI) was done. MRI displayed multiple hypersignal focuses in the white matter around lateral ventricles and corpus callosum in T2 and FLAIR (FLuid Attenuated Inversion Recovery) sequences.

This suggested primary manifestation of multiple sclerosis and lumbar puncture was done. A therapy with methylprednisolone was started immediately. The punctate displayed elevation of cytokines in liquor and serum. In liquor dominated elevation of interleukine-8 and interleukine-6 with no specific agent isolated.

This clinical case displays the deceptiveness of multiple sclerosis which can demonstrate itself like cerebral stroke. The manifestation of multiple sclerosis mimicking stroke is a rare condition that occurs in about 2% and acute aphasia is even rarer.

To our knowledge this is the first report about acute aphasia mimicking stroke as a first manifestation of the multiple sclerosis.

**Key words:** aphasia, multiple sclerosis, pregnancy complications

### AFÁZIE PO PORODU JAKO PRVNÍ ZNÁMKA ROZTROUŠENÉ SKLERÓZY

#### Kazuistika

#### Abstrakt

Tato kazuistika popisuje afázii po spontánním porodu u 39leté pacientky v termínu jako první známku roztroušené sklerózy. Časné poporodní období bylo komplikováno hypotonií dělohy a anémií.

Třetí den po porodu pacientka trpěla neklidem, dysfázií a poruchou rovnováhy. Pracovní diagnóza byla ischemická cévní mozková příhoda (iCMP) neznámé délky a bylo provedeno CT vyšetření. V průběhu dne pacientka měla tranzitorní mydriázu levého oka a její stav progredoval do těžké dysfázie až afázie spolu s vyšší dráždivostí na pravé straně. Přestože CT neukázalo žádné změny ve smyslu krvácení, avšak ani patrnou okluzi, nejpravděpodobnější diagnóza neurologa zůstala iCMP. Nález byl konzultován se superspecializovaným pracovištěm a byl doporučen konzervativní postup.

Následující den pro afázii bylo provedeno vyšetření MRI a v sekvencích T2 a FLAIR (FLuid Attenuated Inversion Recovery) byly popsány hypersignální okrsky v bílé hmotě kolem postranních komor a corpus callosum. Bylo vysloveno podezření na roztroušenou sklerózu a provedena lumbální punkce. Současně byla zahájena kortikoterapie. V punktátu byl nález zvýšených interleukinů 8 a 6, bez záchytu specifického agens.

Tato kazuistika demonstruje zálučnost roztroušené sklerózy, která se může prezentovat jako cévní mozková příhoda. Tento stav je poměrně vzácný – kolem 2 % případů a afázie je ještě vzácnější projev.

Dle našeho vědomí je toto první popsáný případ akutní afázie budící dojem cévní mozkové příhody jako prvního projevu roztroušené sklerózy.

**Klíčová slova:** afázie, roztroušená skleróza, těhotenské komplikace

### Clinical case

This clinical case describes an acute state of aphasia developed after the vaginal delivery as a first manifestation of multiple sclerosis.

The patient was 39 years old primigravida that presented herself in 38<sup>th</sup> week of gestation at the maternity in June 2021.

The pregnancy was conceived by in vitro fertilization procedure and due to the age patient underwent amniocentesis with normal karyotype finding. The estimated fetal weight was in 36<sup>th</sup> week of gestation 3400 g (95<sup>th</sup> percentile). Patient was GBS negative and after the onset of contractions delivered a healthy baby girl (occiput anterior, 4150 grams, APGAR 10-10-10) within six hours.

The early postpartum episode was complicated by hypotonia which led administration of uterotonics and due to the estimated blood loss of 600 milliliters and signs of anemia (Hb 91 g/l, leukocytes  $21.8 \times 10^9$  /l) four transfusion units of red blood cells were transfused.

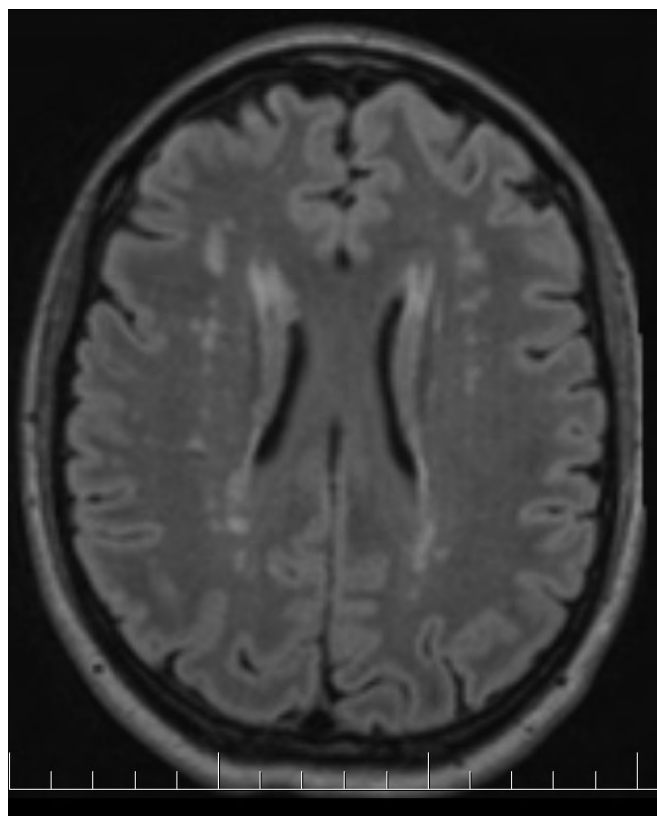
In the morning on the third day after the delivery the patient presented herself with anxiety, dysphasia and instability. The neurologist's working diagnose was ischemic stroke of unknown length (or so-called wake-up stroke).

A computerized tomography (CT) was done. During the afternoon patient presented with transitory mydriasis on left eye and her status deteriorated to severe dysphasia/aphasia and enhanced reflexes on the right side. Eventhough the CT did not display any focal changes, nor arterial occlusions in the circle of Willis, the conclusion (working diagnosis) of neurologist was cerebral ischemia on the left side in the speech center with dysphasia/aphasia and slight monoparesis of the right hand. The CT scans and neurological finding were consulted with tertiary cerebral unit. As intravenous thrombolysis is contraindicated after delivery (within 7 days) and no occlusion was found, conservative treatment was recommended. This involved administration of 500 mg of acetylsalicylic acid and 20 mg of atorvastatine.

The next day due to aphasia another CT was done followed by magnetic resonance imaging (MRI) and magnetic resonance angiography (MRA). The CT did

not aid to the diagnosis, but MRI displayed multiple hypersignal focuses in the white matter around lateral ventricles and corpus callosum in T2 and FLAIR (FLuid Attenuated Inversion Recovery) sequences.

**Fig. 1** Axial projection displaying the hypersignal focuses around lateral ventricles



This finding suggested primary sudden manifestation of the multiple sclerosis and lumbar puncture was indicated. A therapy with methylprednisolone 500 mg intravenously per day was started immediately.

The lumbar punctate displayed elevation of cytokines in liquor and serum. In liquor dominated elevation of interleukine-8 (IL-8) and IL-6 with no specific agent isolated. This suggested inflammatory process in the liquor compartment and supports the diagnosis of the multiple sclerosis (1,2).

This clinical case displays the deceptiveness of multiple sclerosis which can demonstrate itself like cerebral stroke. The manifestation of multiple sclerosis mimicking stroke is a rare condition that occurs in about 2% (3). The acute aphasia is even rarer, according to Lacour et al. this happens only in 0.81% (4).

To our knowledge this is the first report about acute aphasia mimicking stroke as a first manifestation of the multiple sclerosis.

**Conflict of interest**

The author declares no conflict of interest.

---

**Literature**

1. Göbel K, Ruck T, Meuth SG. Cytokine signaling in multiple sclerosis: Lost in translation. *Multiple Sclerosis Journal*. 2018;24(4):432-9
2. Magliozzi R, Pezzini F, Pucci M, Rossi S, Facchiano F, Marastoni D, et al. Changes in Cerebrospinal Fluid Balance of TNF and TNF Receptors in Naïve Multiple Sclerosis Patients: Early Involvement in Compartmentalised Intrathecal Inflammation. *Cells*. 2021;10(7):1712
3. Tsivgoulis G, Alexandrov AV, Chang J, Sharma VK, Hoover SL, Lao AY, et al. Safety and Outcomes of Intravenous Thrombolysis in Stroke Mimics. *Stroke*. 2011;42(6):1771-4
4. Lacour A, De Seze J, Revenco E, Lebrun C, Mas-moudi K, Vidry E, et al. Acute aphasia in multiple sclerosis: A multicenter study of 22 patients. *Neurology*. 2004;62(6):974-7