

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/313591408>

Nosocomial herpes simplex encephalitis: Does it really exist?

Article in *Journal of Infection and Public Health* · February 2017

DOI: 10.1016/j.jiph.2016.11.001

CITATIONS

0

READS

23

3 authors:



Youenn Jouan

Centre Hospitalier Universitaire de Tours

37 PUBLICATIONS 91 CITATIONS

SEE PROFILE



Leslie Grammatico-Guillon

Centre Hospitalier Universitaire de Tours

108 PUBLICATIONS 432 CITATIONS

SEE PROFILE



Antoine Guillon

University of Tours

113 PUBLICATIONS 295 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Inserm U966 Hepatitis B and C [View project](#)



3 axes from hospital information databases [View project](#)



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Journal of Infection and Public Health

journal homepage: <http://www.elsevier.com/locate/jiph>



Letter to the Editor

Nosocomial herpes simplex encephalitis: Does it really exist?

Dear Editor,

We read with interest the recently published article “Nosocomial herpes simplex encephalitis: A challenging diagnosis” by Algahtani et al. [1] and would like to add some comments to the discussion.

First, the incidence of encephalitis due to Herpes simplex virus (HSV) has been recently updated [2,3] showing a tenfold higher incidence than previous reports performed in the 1990s (before the widespread use of molecular diagnostic technologies). Hence, the global incidence of HSE is nearly 1.2/100,000 inhabitants per year instead of 1–4/1,000,000 as reported by the authors [1]. Furthermore, atypical presentations of HSV infections of the nervous system are increasingly described [4]; thus, the exact incidence is probably still underestimated. In this case report, the author assumed that the patient developed nosocomial HSV-1 central nervous system infection. However, no cerebrospinal fluid analysis was performed at the initial management of the patient. Thus, no modification of the cerebrospinal fluid analysis could be proven during the hospital stay. Considering the subtle nature of HSV encephalitis and given that it is not as rare as historically reported, we believe that the author could not claim the hospital-acquired nature of this infection. Indeed, the authors concluded that the herpes simplex encephalitis was possibly a cross-infection from the hospital healthcare professionals to the patient. However, during natural history of HSE, it is still unknown whether HSE is due to a primary infection or a reactivation [5]. The medical history and serology status of the patient regarding previous HSV infections would have helped to answer this question. Authors also point out that the immunocompromised status of the patient could be a risk factor for HSE. To our opinion, HSE is classically not a disease of immunocompromised host: its pathophysiology rather implies excessive inflammation in the brain in reaction to HSV presence [6]. Thus, we believe that, in the specific situation of this case report, we cannot conclude whether it was a reactivation or a primary infection.

In conclusion, this case report highlights that clinicians must be aware of the tricky clinical presentation of HSE and we want to congratulate the authors for that. However, we believe that we currently lack of epidemiological and pathophysiological data to consider HSE as a hospital-acquired infection.

Funding

No funding sources.

Competing interests

None declared.

Ethical approval

Not required.

References

- [1] Algahtani H, Shirah B, Hmoud M, Subahi A. Nosocomial herpes simplex encephalitis: a challenging diagnosis. *J Infect Public Health* 2016. S1876-0341(16)30124-1.
- [2] Jouan Y, Grammatico-Guillon L, Espitalier F, Cazals X, François P, Guillon A. Long-term outcome of severe herpes simplex encephalitis: a population-based observational study. *Crit Care* 2015;15:1–9.
- [3] George BP, Schneider EB, Venkatesan A. Encephalitis hospitalization rates and inpatient mortality in the United States, 2000–2010. *PLoS One* 2014;9, e104169–14.
- [4] Cag Y, Erdem H, Leib S, Defres S, Kaya S, Larsen L, et al. Managing atypical and typical herpetic central nervous system infections: results of a multinational study. *Clin Microbiol Infect* 2016;22(6), 568.e9–17.
- [5] Steiner I. Herpes simplex virus encephalitis: new infection or reactivation? *Curr Opin Neurol* 2011;24(3):268–74.
- [6] Conrady CD, Drevets DA, Carr DJ. Herpes simplex type I (HSV-1) infection of the nervous system: is an immune response a good thing? *J Neuroimmunol* 2010;220(1–2):1–9.

Youenn Jouan^{a,b,*}

^a CHRU de Tours, Critical Care Medicine Department (Service de Réanimation Polyvalente), Tours, France

^b Université François Rabelais, Faculté de Médecine, Tours, France

Leslie Grammatico-Guillon^{a,b}

^a Université François Rabelais, Faculté de Médecine, Tours, France

^b CHRU de Tours, Regional Unit of Hospital Epidemiology (Laboratoire de santé publique), Tours, France

Antoine Guillon^{a,b}

^a CHRU de Tours, Critical Care Medicine Department (Service de Réanimation Polyvalente), Tours, France

^b Université François Rabelais, Faculté de Médecine, Tours, France

* Corresponding author at: Service de Réanimation Polyvalente, CHRU Bretonneau, 2 Bd Tonnellé, F-37044 Tours Cedex 9, France.
Fax: +33 247396536.

E-mail address: youenn.jouan@gmail.com (Y. Jouan)

21 October 2016

<http://dx.doi.org/10.1016/j.jiph.2016.11.001>

1876-0341/© 2017 The Authors. Published by Elsevier Limited. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).