

Final Abstract Number: Sat\_Station 03.4

Session: Moderated ePoster Presentations: Arboviruses

Date: Saturday, March 3, 2018

Time: 12:45-13:45

Room: San Telmo

**Type: Electronic/Moderated Poster Presentation**

**Discordant congenital Zika virus infection in dizygotic twins: a case report**



B. Almeida<sup>1,\*</sup>, J. Cabral<sup>1</sup>, A. Faical<sup>2</sup>, J.V. Oliveira<sup>1</sup>, M. Souza<sup>3</sup>, C. Salles<sup>3</sup>, M.I. Vianna<sup>3</sup>, E. D'Agostino<sup>3</sup>, N. Ferreira<sup>3</sup>, L. Reis<sup>3</sup>, E. Embiruçu<sup>3</sup>, C. Santos<sup>1</sup>, A. Duarte<sup>4</sup>, A. Acosta<sup>3</sup>, I. Siqueira<sup>1</sup>

<sup>1</sup> Instituto Gonçalves Moniz- Fiocruz, Salvador, Brazil

<sup>2</sup> Universidade Federal da Bahia, Salvador, Brazil

<sup>3</sup> Faculdade de Medicina - Universidade Federal da Bahia, Salvador, Brazil

<sup>4</sup> Faculdade de Farmácia- Universidade Federal da Bahia, Salvador, Brazil

**Background:** Discordant clinical outcomes in congenital infectious disorders have been described, such as in Cytomegalovirus, toxoplasmosis and HIV infection, most of them in dizygotic twin pregnancies. In Brazil, since 2015, more than 2800 cases of congenital Zika infection (CZI) were confirmed. To date, three cases of discordant CZI infection in twins were reported, one case in monozygotic pregnancy and two cases in dizygotic twin pregnancies.

**Methods & Materials:** Here, we describe a case report with the clinical presentation of discordant twin siblings, one with microcephaly.

**Results:** Two boys, born in Salvador, Brazil, in June/2015, from a dizygotic twin pregnancy. The mother had rash and itchiness, in the seventh month of gestation. Through the obstetric ultrasonography, no abnormality was detected. The delivery occurred at a gestational age of 39 weeks, the first twin born with 2,240 g; APGAR 9/9 and the head circumference was 31 cm, with the diagnosis of microcephaly. Magnetic Resonance Imaging (MRI) was compatible with microcephaly, severe gliosis and ventriculomegaly. At 9 months, eye exam showed atrophy of the optic nerve bilateral. At one year and nine months of age, at the evaluation of the neurodevelopmental by Bayley III scale, cognitive, language and motor function were extremely low. This child had the diagnosis of Cerebral Palsy, by GMFCS V scale. Auditory evaluation by Brainstem Auditory Evoked Potential (BAEP) was normal at the age of two years. Anti- Zika IgG was positive. The second twin born weighing 2,685 g; the head circumference was 34 cm, APGAR 9/9. At one year and eight months, at the evaluation of the neurodevelopmental by Bayley III scale, cognitive and motor function were average and language function was high average. The MRI, eye exam, and BAEP were without abnormalities. Anti- Zika IgG was negative.

**Conclusion:** We described twins exposed to the Zika virus during pregnancy, but only one with neurological damage by CZI. Despite the advances in understanding the pathophysiology of CZI, little is known about the mechanisms enrolled in vertical transmission of the Zika virus. Possible factors, like fetus genetic factors, viral tropism, and the placenta barrier could explain this discordant presentation, but further studies are necessary to confirm.

<https://doi.org/10.1016/j.ijid.2018.04.3662>

Final Abstract Number: Sat\_Station 03.5

Session: Moderated ePoster Presentations: Arboviruses

Date: Saturday, March 3, 2018

Time: 12:45-13:45

Room: San Telmo

**Type: Electronic/Moderated Poster Presentation**

**Impaired quality of life after chikungunya virus infection: a 2-year follow-up study of its chronic inflammatory rheumatism in La Virginia, Risaralda, Colombia**



A.J. Rodriguez-Morales<sup>1</sup>, S.A. Ochoa-Orozco<sup>2</sup>, S. Ocampo-Serna<sup>2</sup>, O.M. Meneses-Quintero<sup>2</sup>, D.M. Sánchez-Castaño<sup>2</sup>, K.L. Hoyos-Guapacha<sup>1,\*</sup>, G. Botero-Castaño<sup>1</sup>, J.C. Gutiérrez-Segura<sup>1</sup>, J.D. Castrillón-Spitiá<sup>3</sup>, J.J. Londoño<sup>4</sup>, H.D. Bedoya-Rendón<sup>4</sup>, J.D.J. Cárdenas-Pérez<sup>4</sup>, J.A. Cardona-Ospina<sup>1</sup>, C. González-Colonia<sup>1</sup>, G.J. Lagos-Grisales<sup>1</sup>

<sup>1</sup> Public Health and Infection Research Group, Faculty of Health Sciences, Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia

<sup>2</sup> Psychiatry Postgraduate, Faculty of Health Sciences, Universidad Tecnológica de Pereira, Pereira, Risaralda, Colombia

<sup>3</sup> Fundación Autónoma de las Américas, Pereira, Risaralda, Colombia. ESE Hospital San Pedro y San Pablo, La Virginia, Colombia

<sup>4</sup> ESE Hospital San Pedro y San Pablo, La Virginia, Colombia

**Background:** Impact of post-chikungunya (CHIK) chronic inflammatory rheumatism (pCHIK-CIR) on Quality of Life (QoL) has been reported in some studies from La Reunion, France, India and Colombia. In this country our group published its consequence after 1-year of follow-up (Rheumatol Int. 2017).

**Methods & Materials:** In a cohort study among 62 cases serologically diagnosed in La Virginia, Risaralda, Colombia, followed-up by 2-years, demographic and clinical characteristics were collected at baseline. QoL status by 36-item short-form health survey (SF-36) at 1-year and 2-years were assessed and compared. pCHIK-CIR cases were identified according to validated criteria (WHO/PAHO, 2015). Those with other arbovirolosis during follow-up were excluded.

**Results:** Of the total CHIK-infected subjects in this cohort, 43 (69.4%) reported persistent rheumatological symptoms (pCHIK-CIR). All dimensions of SF36 as well as physical and mental component summaries were impaired in pCHIK-CIR+ compared to pCHIK-CIR- subjects. Differences in median scores between both groups, pCHIK-CIR- with 83.2% and pCHIK-CIR+ with 51.4%, were statistically significant ( $p < 0.0001$ ). In addition, in six dimensions, differences were also significant ( $p < 0.05$ ) (physical functioning [89.5%/62.1%], role physical [89.5%/39.0%], bodily pain [88.2%/44.4%], general health [77.7%/51.4%], vitality [79.5%/50.6%] and health transition [68.4%/40.7%]). When compared evolution from 1-year to 2-year, the more prominent reduction was found in health transition from 50.9% to 40.7%, as well bodily pain from 51.6% to 44.4%. Global median scores reduced from 54.2% to 51.4%.

**Conclusion:** Despite possible cohort attrition bias, the comparability of pCHIK-CIR+/- subjects allows the confirmation of a long-term impact of CHIK infection with less chance of returning to a previous health status. We observed sharp reductions in QoL not only during active pCHIK-CIR+ associated illness but also for several months and now more than 2 years after infection compared to healthy normal subjects that reached clinical recovery. This has implications for developing intervention programmes in