

## **ASSISTED REPRODUCTIVE TECHNOLOGY (ART) DURING THE ZIKA EPIDEMIC: NAVIGATING THE LINE BETWEEN PUBLIC HEALTH POLICY, PATIENT'S EXPECTATIONS AND SAFETY?**

Nadia Prisant<sup>1</sup>, Fanny Bechard<sup>1</sup>, Catherine Moriniere<sup>1</sup>, Pierre-Humbert Hayot<sup>1</sup>, Sylvia Lurel<sup>1</sup>, Lynda Pavili<sup>1</sup>, Louis Bujan<sup>2</sup>, Guillaume Joguet<sup>1</sup>

<sup>1</sup>CCMR/CECOS Caraïbes, CHU Pointe à Pitre, Abymes, Guadeloupe, <sup>2</sup>Groupe De Recherche en Fertilité Humaine (EA 3694, Human Fertility Research Group), CECOS, Toulouse University / Universitary Hospital CHU Toulouse, Toulouse, France

Zika virus (Zikv) epidemic spreading has created worldwide concern as the link between infection and fetal neurological malformations was established in in vivo and in vitro studies. Sexual transmission and the presence of Zikv within reproductive tissues pose significant challenges to ART practitioners dealing with infertile patients.

Health officials in several countries have recommended that women postpone pregnancy in response to the Zikv outbreak. In France, ART procedures are state-funded and therefore highly regulated. On January 15th 2016, the epidemic was officially declared in Guyana. At the time dozens of couples were actively enrolled in ART procedure in our Center, at various stages of care. The French Agence de Biomedecine (ABM) issued a statement on the 8th of February to halt all ART in the French West Indies. Emergency interruption of stimulation protocols took place for several couples, while a few were given the choice to proceed to embryo transfer (after signing a disclaimer of accountability) or to embryo freezing. After this crisis management episode and consultation with health officials, recommendations were issued, that have been reviewed three times already.

Patients were advised regarding protection measures against mosquito's bites, and later, when information became available on Zikv persistence in sperm, were required to follow the ABM recommendations of safe sex practice. Meanwhile, patients were becoming exasperated with the restrictions imposed on infertile couples, while the French general public was mildly incited to postpone pregnancies. Fertility preservation for women, through oocyte vitrification, was still authorized in case of emergency. We decided to open this possibility to our patients, as postponement of care could be of no foreseeable duration. At first, we included a cohort of 80 patients with failing ovarian reserve or advanced age, and monitored their Zikv status throughout the stimulation protocol, on the day of oocyte retrieval and three weeks afterward. Informed consent was received from each participant.

As the time passed we included more patients in the fertility preservation program, choosing to open it to all patients over 35 years of age.

With more information regarding Zikv chronicity, clearance, cell invasiveness, or replication sites, it will be easier for our patients to decide whether to use the frozen gametes for IVF-ICSI, as soon as official restrictions will be lifted.

It is our hope that this tale of crisis management in the ART environment could serve as a template for infertility practitioner's response during a viral epidemic.