ARTICLE IN PRESS

European Journal of Obstetrics & Gynecology and Reproductive Biology xxx (2018) xxx-xxx



Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb





EBCOG Position Statement – Travelling when pregnantth Maud Van de Venne, Tahir Mahmood on behalf of EBCOG

Pregnant women may want to travel to go on holiday, to visit friends or family or for work related purposes. For the majority of pregnant women, travelling long distances will be safe and a short flight may be a safer alternative to a long car, coach or train ride. With any type of travelling, seatbelts should be worn when directed to do so, with the upper belt above the uterus and the lower belt across the upper thighs, therefore ensuring that either belt avoids the pregnant uterus [1,2].

Air travel does not increase the risk of the woman going into pre-term labour or developing other obstetric complications such as placental abruption. Should, however, a woman go into labour or start to bleed whilst flying, there usually will not be any immediate help from appropriate healthcare professionals. Women should always check with the airline they are flying with for the exact requirements. Most airlines ask pregnant women to carry a letter from their midwife, obstetrician or GP stating how many weeks pregnant the woman would be when flying. EBCOG recommends that such a letter should clearly state the expected date of delivery, how many weeks pregnant the woman would be on the date of flying, and whether there are any risk factors for preterm labour or obstetric complications. Most airlines will not allow women with singleton pregnancies to fly after 37 weeks or twin pregnancies after 32 weeks. Women with risk factors for ectopic pregnancies or with a past history of recurrent miscarriages may want to have an ultrasound to check the viability of the pregnancy before flying in the first trimester [3].

Reduced mobility during travel increases the risk of leg oedema and of Venous Thrombo-Embolism (VTE). This risk is already raised 9 times during pregnancy and is raised a further 3 times in flights of greater than four hours duration. The risk is increased by 18% for any additional two hours of flying. Pregnant women are advised to

Cabin pressure, which is significantly reduced compared to normal barometric pressure, leads to a 10% reduction in maternal blood oxygen saturation. This is not usually a problem in pregnancy, unless the woman's Hb is below 75 g/L (4.65 mmol/L; normal range being 7.5–9.3 mmol/L), in women with a recent sickling crisis or in serious respiratory or cardiac disease. There are no changes in the fetal oxygen pressures. The reduced barometric pressure can also lead to nasal congestion, which can lead to discomfort and problems within the ears, particularly in women with sinusitis or otitis media. Women who have undergone recent bowel surgery can have their sutures on the intestine come under stress.

The increased exposure to cosmic radiation associated with occasional flying does not pose a risk to the fetus. The amount of radiation received by the mother in an airport security full body scanner is equal to the amount of cosmic radiation received from 2 minutes of flying at cruising altitude. The fetal dose is much lower than that received by the mother and therefore pregnancy should never be a contra-indication to security scanning.

The mother should be aware of endemic infectious diseases that she may be exposed to when travelling to certain countries and make sure she has received the appropriate immunisations. In countries with infectious diseases spread by mosquitos, such as Dengue fever, malaria and ZIKA, if possible, journeys to such countries be avoided or delayed until after the delivery [4]. The mother should take adequate prophylactic measures, such as wearing long sleeved clothing, sleeping under impregnated

https://doi.org/10.1016/j.ejogrb.2018.10.002 0301-2115/© 2018 Published by Elsevier B.V.

wear properly fitted graduate compression stockings, to stay well hydrated, to avoid caffeine and alcohol and to move regularly. In flight exercises should ideally be done every 30 minutes and an aisle seat makes it easier to get up and walk down the aisle. Aspirin does not decrease the risk of developing a VTE. Women at high risk of VTE may want to consider taking Low Molecular Heparin (LMWH) on the day of flying and for several days after the flight.

[☆] The expert reviewers for this paper were: Dr Rene H.M. Verheijen, Professor Fionnuala McAuliffe, and Professor Peter Hornnes. This paper has been approved by the Executive Board of EBCOG.

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mosquito nets and taking malaria prophylaxis. DEET with concentrations of 20-50% is the mosquito repellent of choice for use in pregnancy [5,6].

Post travel clinical management is important. Woman must let their health care providers know about their past travels and if they had had any febrile illness while abroad. Exposure to some viral, parasitic and bacterial infections may have a delayed presentation, long after a journey. Some of them may even have a detrimental effect of the baby as well.

It is sensible upon arrival to the travel destination to identify the location of the nearest medical facility in the event of a problem arising.

It is recommended that, where possible, women who are even contemplating pregnancy and those in the early gestational age should avoid non-essential travelling to those areas declared unsafe by the WHO.

References

- [1] RCOG. Air Travel and Pregnancy RCOG scientific Impact Paper. London: RCOG
- Press; 2013.
 ACOG. Air Travel during Pregnancy–ACOG Committee Opinion number 443. Washington: ACOG press; 2009.
- [3] https://www.iata.org/whatwedo/safety/health/Documents/medical-manual-2013.pdf?.
- ACOG. Zika Virus and Pregnancy, 2016- Video for patients. https://www.acog. org/Patients/Patient-Education-Videos/Zika-Virus-and-Pregnancy).
- Chappell L. Advising on travel during pregnancy. BMJ 2011;342, doi:http://dx. doi.org/10.1136/bmj.d2506.
- Stanczyk NM, Chen-Hussey V, Stewart SA. Mosquito repellents for travellers. BMJ 2015;350, doi:http://dx.doi.org/10.1136/bmj.h99.