LETTER

Air travel during pregnancy

Dear Editor,

Air travel does not seem to be harmful to pregnancy, and it is generally considered to be safe; thus most commercial airlines allow pregnant women to fly until the 36th week of their gestational age. The data regarding the precise effect of air travel on thromboembolism, miscarriage, preterm labor rates, and pregnancy outcomes is limited[1]. Medium- to long-distance travelers have a 2- to 4-fold increased risk of venous thromboembolism (VTE) compared to non-travelers due to immobilization for several hours, hypoxia associated with decreased cabin pressure, and dehydration because of low cabin humidity. An association between air travel and miscarriage is considered contradictory. In the future, studies concerning pregnant woman traveling by air should address personal and work-related risk factors in more detail and include a comparison with other occupational groups. Women with a higher risk of spontaneous miscarriage should be restricted from flying. According to literature, there is no sufficient data that relate preterm labor with air travel. Freeman et al who addressed potential risk in late (≥ 20 weeks) pregnancy, found that air travel was not associated with increased risk of complications for birth weight, shorter gestation, rate of vaginal bleeding, preterm delivery, preeclampsia or neonatal intensive care admission[2]. Chibber et al presented conflicting results with larger sample size and showed that primigravid women who travel by air appear to be at a higher risk for preterm birth[3]. Such research results are vital, and multicentre large studies are required to confirm or refute these findings and to define new strategies for preventing adverse birth outcomes. Pregnant women suffering from serious medical or obstetric conditions need their management to be individualized. Women with preexisting cardiovascular illness demand special management. In pregnancy it is essential to evaluate the patient's anamnesis considering cardiovascular, cardiac and pulmonary diseases, renal insufficiency, hypertension, diabetes or a recent VTE. Air travel during pregnancy nowadays is very common especially when international travel for work and pleasure is more commonplace. Despite the increasing number of reviews focussing on air-travel in different stages of pregnancy, our knowledge about the real effects of international flights is limited. The radiation dose to the fetus from exposure to cosmic radiation is negligible. Flights lasting more than 4 hour are associated with a small increase in the relative risk of VTE. Specific prevention methods, e.g., elastic compression stockings should be applied for women who fly medium or long-haul flights (> 4 hours), and low-molecular-weight heparin should be administered to those with significant risk factors such as previous thrombosis or morbid obesity. Low dose Aspirin is not indicated in pregnancy for thromboprophylaxis associated with air travel. A meticulous risk assessment should be completed to identify the main risks and special management strategies for avoiding complications while travelling[4].

Keywords: air travel, pregnancy, miscarriage, preterm delivery, thrombosis, cosmic radiation

Conflict of interest

None.

References

1. Izadi M, Alemzadeh-Ansari MJ, Kazemisaleh D, Moshkani-Farahani M, Shafiee A. Do pregnant women have a higher risk for venous thromboembolism following air travel? Adv Biomed Res. 2015; 4: 60.
2. Freeman M, Ghidini A, Spong CY, Tchabo N, Bannon PZ, Pezzullo JC. Does air travel affect pregnancy outcome? Arch Gynecol Obstet. 2004; 269: 274-277.
3. Chibber R, Al-Sibai MH, Qahtani N. Adverse outcome of pregnancy following air travel: a myth or a concern? Aust N Z J Obstet Gynaecol. 2006; 46: 24-28.
4. Freedman DO, Chen LH, Kozarsky PE. Medical Considerations before International Travel. N Engl J Med. 2016; 375: 247-260.

Csorba R[1], Tsikouras P[2]
[1]Department of Obstetrics and Gynecology, Hospital of Aschaffenburg, Germany
[2]Department of Obstetrics and Gynecology, Democritus University of Thrace, Greece

Corresponding author: Panagiotis Tsikouras, Associate Professor, Department of Obstetrics and Gynecology, Democritus University of Thrace, Alexandroupoli, Greece, e-mail: ptsikour@med.duth.gr