DSEN ABSTRACT

Low dose fluconazole and adverse pregnancy outcomes

Summary

- The authors conducted a population-based cohort study to evaluate the risk of spontaneous abortions, major congenital malformations (MCM) and stillbirths in pregnant women exposed to low and high doses of fluconazole.

Key messages

- Our data suggests any maternal exposure to fluconazole during pregnancy may increase risk of spontaneous abortion and doses higher than 150 mg during the first trimester may increase risk of cardiac septal closure anomalies.

Authors: Anick Bérard, Odile Sheehy, Jinping Zhao, Michal Abrahamowicz, Mona Loutfy, Isabelle Boucoiran, Sasha Bernatsky

For more information, please contact Anick Bérard
anick.berard@umontreal.ca

What is the issue?

- While topical azoles are the first-line treatment for fungal infections, oral fluconazole is frequently used during pregnancy.

What was the aim of the study?

- To assess the effect of exposure to low and high doses of fluconazole during pregnancy on the occurrence of spontaneous abortions, major congenital malformations and stillbirths.

How was the study conducted?

- Using data from the Quebec Pregnancy Cohort between 1998 and 2015, we included women covered by the provincial drug plan who had a singleton live birth. We identified women exposed to low- (≤ 150 mg) and high-dose (> 150 mg) fluconazole, and women who were not exposed. For each case of spontaneous abortion or stillbirth, up to 5 controls were randomly selected using an incidence density sampling method matched on gestational age at diagnosis of spontaneous abortion or stillbirth (index date) and the year of the last menstrual period. For cases of major congenital malformation, we considered all liveborn babies as controls. Generalized estimation equation models were used to analyze the 3 main outcomes separately.

What did the study find?

- Use of oral fluconazole during early pregnancy was associated with an increased risk of spontaneous abortion compared with no exposure (adjusted odds ratio [aOR] 2.23, 95% confidence interval [CI] 1.96–2.54 to low-dose treatment and 3.20, 95% CI 2.73–3.75 to high-dose treatment.
- Exposure to fluconazole during the first trimester did not increase the risk of overall major congenital malformations; however, exposure to a high dose during the first trimester was associated with an increased risk of cardiac septal closure anomalies (aOR 1.81, 95% CI 1.04–3.14).
- No association was found between exposure to fluconazole during pregnancy and the risk of stillbirth.

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