

# Leave my placenta alone!

Prescrire has a longstanding interest in the consequences of drug exposure during pregnancy, for both the woman and the unborn child. This interest extends to women who are not yet aware they are pregnant, and to the long-term consequences of in-utero drug exposure, in particular on the child's development.

Some substances have direct effects on the child: those that carry a risk of morphological defects when administered during the first trimester of pregnancy are described as teratogenic, while those that can impair organ function when administered during the second or third trimester are described as fetotoxic.

When thinking about the consequences of drug exposure during pregnancy, it is also important to take into account the dedicated, short-lived organ that is essential for maintenance of pregnancy and for the healthy development of the child during gestation: the placenta. On page 47 of this month's issue is an overview of drugs that directly interfere with the placenta, or that disrupt its development or function, with sometimes serious clinical consequences such as spontaneous abortion, fetal growth restriction, preterm birth, fetal death and obstetric complications. It is a little-studied and little-discussed field, in which the absence of robust data precludes evidence-based decision-making. With this as our starting point, and faced with so many unknowns, it is important to apply pharmacological knowledge and reasoning even when little information is available.

Drawing on knowledge about a drug's pharmacology is helpful in predicting the impact of its use at any trimester of pregnancy. For example, inhibitors of prostaglandin synthesis (such as nonsteroidal anti-inflammatory drugs) are liable to prevent embryo implantation or cause spontaneous abortion, while vasoconstrictors (such as triptans and CGRP inhibitors such as *erenumab*, used in migraine, or "trivial" nasal decongestants) are liable to decrease placental perfusion and provoke placental infarction, gestational hypertension or fetal death, etc.

Developing and then applying pharmacological understanding and reasoning, enables healthcare professionals to avoid interfering unnecessarily with the placenta, and helps avoid harm to pregnant women and the children they are carrying.

**Prescrire**