

## CLINICAL STUDY

**Drug use – problem in pregnancy**

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**Objective:** The consumption of drugs during pregnancy considered as a specific medical problem. Drug consumption and drug compliance in pregnancy were analysed in our study.

**Methods:** Structured questionnaire and data from mothers were used as principal sources for analysis. Consumption of drugs and compliance with therapy were evaluated in 331 pregnant women, 60 % city and 40 % rural population, of Region Nitra, Slovakia, after their child birth.

**Results:** Drug's use was confirmed in 75 % of pregnant women. The consumption was significantly higher in the first and second pregnancy when compared to the females by in their third or further pregnancies. Medical prescription was the reason of drug use in 89 % pregnant women. The number of prescribed drugs similarly as the total consumption was higher in the first and second pregnancies. We noted medical prescribing drug compliance in 70 % pregnant women. 16 % of pregnant women used anesthetic drugs, out of whom 57 % on the basis of medical prescription.

**Conclusion:** Adverse drug reactions (gastrointestinal problems and)headache were reported by 15 % of pregnant women. In the observed group 6 % of women gave birth premature infants (once gemini, once trimini). Two newborns overcame sepsis. One baby suffered from cheilognatopalatoschisis and two newborns from vitium cordis congenitum. We do not suppose any correlation between child abnormalities and drug consumption during pregnancy. (Tab. 1, Ref. 9.)

**Key words:** pregnancy, drug use.

The consumption of drugs during pregnancy is considered as a specific medical problem (7,9). Drug consumption and drug compliance in pregnancy was evaluated in our one year study. The analysis also involves drug consumption during pregnancy.

**Methods**

Structured questionnaires and data from mothers were used as principal sources for the analysis (3). Consumption of drugs and compliance with therapy were evaluated in 331 Slovak pregnant women after giving birth, out of whom 60 % live in a city and 40 % in rural regions Nitra.

**Results**

Drug use was confirmed in 75 % of pregnant women. Table 1 describes the structure of age of pregnant women and sequence of pregnancy. The consumption was significantly higher

in the first and second pregnancy in comparing to the females in the third or higher pregnancy. Medical prescription was the reason of drug use in 89 % of pregnant women. The number of prescribed drugs and the total consumption in the first and second pregnancies was higher than in the third and further pregnancies. In case of prescribed drugs, we noted compliance in 70 % of pregnant women. Adverse drug reactions (gastrointestinal problems and headache) were reported by 15 % of pregnant women. The total use of vitamins, minerals, iron and folic acid was in 78 %, analgetic drugs was in 16 %, antibiotics and cardiovascular drugs was in 2 %, other drugs was in 4 %. 57 % of pregnant women used analgetic drugs in accord in with medical prescription.

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**Tab. 1. Pregnant women (n=331).**

Age	%
up to 20 years	12
21–30 years	64
31–40 years	22
over 40 years	2
Pregnancy	
first	41
second	34
third or subsequent	25

### Discussion and conclusions

Pregnant women are excluded from the clinical trials. Assessing the teratogenic potential of drugs in pregnant women is prohibited. Many women take drugs during pregnancy, but it is difficult to ascertain the extent of drug prescription and OTC drug consumption (6).

The drugs were prescribed mainly by general physicians and gynaecologists. The most frequently prescribed classes of drugs were vitamins, minerals, iron and folic acid (78 %), analgetics (16 %), antibiotics, cardiovascular drugs (2 %) and others (4 %).

We used the FDA risk classification (1,2,5):

*category A:* controlled studies in women do not show risk to the fetus in the first trimester,

*category B:* animal reproduction studies do not show risk to the fetus but there are not controlled studies in pregnant women,

*category C:* studies in animals show adverse effects on the fetus but there are not controlled studies in women,

*category D:* there is positive evidence of human fetal risk but benefits from use in pregnant women may be acceptable despite the risk,

*category X:* studies in animals or human beings show abnormalities and risk of the use of the drug in pregnant women clearly outweighs any possible benefit,

*category U:* unknown, absence of published data.

In the observed group 6 % of women had premature infants. Two newborns overcame sepsis. One baby suffered from cheilognatopalatoschisis two newborns from vitium cordis conge-

nitum. We do not suppose correlation between child abnormalities and drug consumption during pregnancy. In our study, no drugs from D and X categories were prescribed.

Our findings emphasise that Slovak pregnant women are too frequently exposed to drugs (4,6,8). Pregnant woman should be continuously monitored. Physicians and women should be more aware of the potential risk of drugs to the fetus.

Teratogenic effects of new drugs which lead to a detectable increase in frequency of malformations in the population tend to be picked up either by an alert clinician or by case-control studies, but not by routine surveillance. One of the methods to solve some of these problems is to carry out routine surveillance to monitoring the links between routinely recorded drug exposures and specific types of anomaly.

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