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Risk and Benefit of Drug Use During Pregnancy

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Abstract:

Environmental teratogenic factors (e.g. alcohol) are preventable. We focus our analysis on human teratogenic drugs which are not used frequently during pregnancy. The previous human teratogenic studies had serious methodological problems, e.g. the first trimester concept is outdated because environmental teratogens cannot induce congenital abnormalities in the first month of gestation. In addition, teratogens usually cause specific congenital abnormalities or syndromes. Finally, the importance of chemical structures, administrative routes and reasons for treatment at the evaluation of medicinal products was not considered. On the other hand, in the so-called case-control epidemiological studies in general recall bias was not limited. These biases explain that the teratogenic risk of drugs is exaggerated, while the benefit of medicine use during pregnancy is underestimated. Thus, a better balance is needed between the risk and benefit of drug treatments during pregnancy. Of course, we have to do our best to reduce the risk of teratogenic drugs as much as possible, however, it is worth stressing the preventive effect of drugs for maternal diseases (e.g. diabetes mellitus and hyperthermia) related congenital abnormalities.

Key Word:
human teratogenic drugs, congenital abnormalities, critical period, recall bias, congenital abnormality, preventive effect of drugs.

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