



CLINICAL PHARMACOLOGICAL APPROACH TO THE USE OF ANTIBIOTICS IN PREGNANT WOMEN

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Abstract:

It was established that pharmacotherapy of pregnant women was carried out in 100% of cases; during the gestation period, an average of 12.6 drugs were prescribed. The greatest number of drugs was used simultaneously in the second trimester (an average of 5.5); in the first and third trimesters this number was an average of 2.4 and 4.7, respectively. In the structure of prescriptions, the leaders were vitamin and mineral complexes (70.4%), agents for local vaginal sanitation (37.1%), gestagens (33.1%), herbal uroseptics (29.8%), systemic antibiotics (14.2%). Defects in pharmacotherapy included: prescription of drugs that do not correspond to the diagnosis - 48.6% of cases, a combination of several drugs with the same pharmacological action - 16.5%, polypharmacy - simultaneous prescription of 5 or more drugs - 25.8%.

Keywords: pharmacotherapy, polypharmacy, pregnancy, local vaginal sanitation, micronutrients, gestagens, uroseptics.

INTRODUCTION

Pharmacotherapy of pregnant women is one of the least studied areas of perinatal medicine [1]. The complexity of assessing the effect of drugs on pregnant women and the fetus is predetermined by limited knowledge of the pharmacokinetics and pharmacodynamics of most drugs in the mother-placenta-fetus system and the lack of randomized clinical trials studying the effect of drugs during pregnancy [2, 3]. The need for widespread use of drugs during pregnancy is an objective reality determined by the increasing age of pregnant women and their high somatic burden: more than 82.0% have one or another pathology (42% - anemia, 21% - urinary tract infections, 11% - hypertension), as well as complications of gestation [4]. Prescribing medications to a pregnant woman is a difficult task, since, on the one hand, medications can disrupt the fragile process of ontogenesis and provoke developmental disorders in the child, carrying significant risks for the woman herself, on the other hand, the absence or insufficient treatment can lead to the progression of existing pathology and complications of gestation [1].

MATERIALS AND METHODS

Currently, medical obstetric practice is being restructured to work within the framework of clinical protocols, which clearly define the situations in which this or that treatment should be carried out [2]. The ability to prevent the negative effects of drug aggression or significantly weaken them lies in each doctor's understanding of the basics of pharmacotherapy, strict compliance with the use of

drugs in accordance with the current level of knowledge, as well as in the competent interpretation of clinical monitoring data for pregnant women [3]. All this makes it possible to avoid medical errors when prescribing drugs to pregnant women, including polypharmacy [4]. A retrospective cohort study was conducted based on three women's consultations in the city of Andijan. Approaches to prescribing drug therapy to pregnant women in these two regions differed little from each other, which made it possible to identify general trends in the implementation of drug therapy for pregnant women. The average age of pregnant women was 29±1 year.

RESULTS AND DISCUSSION

Pharmacotherapy of pregnant women, including micronutrient supplementation, was carried out in 100% of cases, with 1 to 18 drugs prescribed. The greatest number of drugs was prescribed in the second trimester - from 2 to 7 (on average 5.6), the least - in the first trimester, from 2 to 4 (on average 2.4), in the third trimester, pregnant women received from 2 to 6 (on average 4.7) drugs. Pharmaceuticals were prescribed to pregnant women for the purpose of micronutrient supplementation, correction of somatic pathology, treatment of gestation complications. The main indications were: threatened miscarriage and premature birth, infectious and inflammatory diseases of the vagina, pain syndrome, anemia, placental insufficiency, urinary tract infections, prevention of fetal malformations. Three groups were in the lead among the drugs used:



- 1) vitamins and minerals;
- 2) antimicrobial drugs, including antibiotics and antiseptics of systemic and local action, as well as herbal uroseptics;
- 3) gestagens.

Analysis of pharmacotherapy of pregnant women allowed to highlight several of the most characteristic defects. Noteworthy is the simultaneous prescription of drugs with the same action in 16.5% of cases (gestagens; two antiplatelet agents - curantil and cardiomagnyl, two antiviral drugs - viferon and grippferon, grippferon and oscilloccinum, two antibacterial agents - vilprafen solutab and azithromycin); duplication in various complexes of vitamins and microelements with excess of physiological doses (7.4%). In a number of cases (48.6%), drug therapy did not correspond to the diagnosis: there was a combination of an established diagnosis with the absence of treatment, the absence of a diagnosis with the prescription of treatment. In more than a quarter (25.8%) of cases, 5 or more drugs were prescribed simultaneously, which should be regarded as polypragmasy [4]. In some observations, polypharmacy was explained by combined pathology. For example, patients with threatened miscarriage, chronic vaginitis, edema, chronic urinary tract infections, anemia, varicose veins were simultaneously prescribed gestagens, antimicrobial agents for local use, herbal uroseptics, iron preparations, and venotonics.

A comparison of our results with the data of the Russian pharmacoepidemiological study of 2017 showed that the use of drugs, including vitamin and mineral complexes, during gestation also occurred in 100% of women. At the same time, over 11 years, the frequency of micronutrient supplementation, in particular vitamin and mineral complexes, has increased: if in 2017 they were prescribed to 1.5% of pregnant women, in 2023 - 7.0%, then in our study this figure increased to 70.0%. In the structure of prescriptions at present, in addition to vitamin and mineral complexes, the leaders are drugs for vaginal sanitation (37.1%), gestagens (33.1%), as well as herbal uroseptics (29.8%). A positive trend in prescribing drugs to pregnant women is a significant decrease in drug aggression - on average, 12.6 drugs were prescribed during gestation versus 26 drugs in 2017. The analysis conducted in this work showed that all drugs used during gestation are registered in the State Register of Medicines and were prescribed in accordance with the approved instructions, which contain information on the admissibility of using drugs during gestation - this is due to the introduction of clinical protocols and recommendations into practice. It is important to note that during the study, not a single prescription of drugs with a possible teratogenic or embryotoxic effect was registered, which indicates an increase in the safety of the pharmacotherapy. At the

same time, previously (in 2017), 28% of prescribed drugs were relatively safe for the fetus, another 36% had a teratogenic and embryotoxic effect, and for the remaining 36% there was no evidence of effectiveness.

CONCLUSION

The obtained results indicate positive trends in the treatment of pregnant women and increased safety of the therapy. At the same time, there is a need for constant audit and correction of prescriptions in accordance with clinical protocols. A promising way to reduce the intensity of drug therapy during pregnancy is pregravid preparation, in which the drug load will shift to the pregestational period and provide favorable conditions for the development of the embryo and fetus. An urgent task of pharmacotherapy during gestation is to increase the subsidy of micronutrients, namely folates, iodine and iron.

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