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Alternative Therapies for Trichomoniasis in the Postpartum Period

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Abstract. We have treated 60 women with trichomoniasis in the postpartum period using three days' intravenous injections of metronidazole 100 ml (0.5 grams) three times a day, (ornigil 100 ml (0.5 g) twice daily) and fluoroquinolones (100 ml 0,2 grams) twice daily as well as intramuscular injection of cephalosporins 1,0 grams twice a day. The parturients were divided into 2 subgroups: the first group included 40 women who didn't breastfeed while beeing treated with all above mentioned drugs in strict compliance with drug administration interval: the treatment was effective. The second group included 20 women with partial breast feeding and we didn't use fluoroquinolones for them, while ornigil was injected every 12-14 hours: the treatment was effective in 15 cases (75%) which is not significantly different from the first subgroup.

Key words: postpartum infectious complications, postpartum, trichomoniasis, urogenital infections.

INTRODUCTION

Postpartum infectious complications is a serious problem in obstetrics, they contribute to the development of obstetric and neonatal complications requiring early diagnosing and efficient treatment, necessitating temporary weaning. Taking into account the fact that recent years have seen increased incidence of urogenital infections with the formation of chronic disease and the spread of diseases among the population, the differentiated approach to treatment¹ is required, especially in the postpartum period, when there is a choice between the administration of adequate antibiotic therapy and breast feeding.

Trichomonal infection is detected in almost 10% of the population². In certain socio-economic groups, the prevalence of trichomoniasis may reach 40-90%. In female genital organs trichomonads can coexist with gonococci, herpes simplex viruses, chlamydias, coryneformic bacteria and other

microorganisms that are found in the lower genital organs. Absorbing the pathogens, trichomonads act as infectious agents in the upper internal genital organs and the abdominal cavity¹. The importance of the problem is caused not only by the prevalence of the disease, but also the consequences that arise as a result of both trichomonads and pathogens impact, the latter parasitizing simultaneously with trichomonads³.

OBJECTIVE

The aim of the present study was to determine effectiveness of trichomoniasis treatment in parturients with different treatment regimens and partial breast treatment.

MATERIAL AND METHODS

To achieve our aim we treated 60 women with trichomoniasis in the postpartum period (the main group). The control group included 20 women without fever or inflammatory diseases of the female genital organs in the past. 14 parturients of the main group (23.3%) were somatically healthy, 25 (41.6%) had chronic inflammatory disease of the urinary system, 10 (16.7%) suffered from anemia of different degrees, 6 (10%) had mild and moderate preeclampsia, 5 (8.3%) had disease of cardiovascular system. In history - 43 (71.7%) women had inflammatory diseases of the female genital organs, all the parturients complained of recurrent abnormal discharges. Among the parturients of the control group 5 (25%) suffered from anemia of various degree, 4 (20%) had cardiovascular diseases, while 11 of them (55%) didn't have a somatic pathology. The women in both groups were between 20 and 39 years old (average age $30,5 \pm 0,45$).

The material for the study were discharges from the vagina and cervical canal, scraping of the cylindrical epithelium of the cervical canal. Methods that were used: bacterioscopic, biological and statistical. The value p (reliability of difference) was determined according to the Student-Fisher table. Difference between mean values, which were compared, considered to be reliable when $p < 0,05$.

RESULTS AND DISCUSSION

Bacterioscopic and bacterial examination of the vaginal discharges and those from the cervical canal was conducted in 65 parturients with a single body temperature rise over 38°C on the first days after the delivery and when there were some pathological vaginal discharges. 5 of them (7,7%) were not diagnosed with trichomoniasis. As a result of the study we found trichomonads in 60 women of the main group: 8 of them only had trichomonads, 52 women had some polymicrobial associations. It was established, as a result of the examination, that trichomonads only parasitized with opportunistic microorganisms in 17 cases (28,3%), only with pathogenic ones in 16 cases (26,7%), with both ones simultaneously in 27 cases (45%) (there were pathogenic microorganisms in 43 cases (71,7 %)).

Candida albicans were found in 20 women of the control group, lactobacilli – in 3 of them (15%), coryneformic bacteria in 17 cases (85%).

Trichomonads got associated with such opportunistic microorganisms: *Candida albicans* – 10 cases – 16,7 % ($p > 0,05$), *S.epidermidis* – 18 cases – 30 % ($p < 0,05$), *E. coli* – 14 cases – 23,3 % ($p < 0,05$), *Ureaplasma urealyticum*, *Mycoplasma hominis* – 27 cases – 45 % ($p < 0,05$), *S.epidermidis* i *E. coli* – 10 cases – 16,7 % ($p < 0,05$), *S.epidermidis*, *E. coli* ra *Ureaplasma urealyticum* or *Mycoplasma hominis* 15 cases – 25 % ($p < 0,05$), with pathogenic ones: *Chlamydia trachomatis* – 10 cases – 16,7 % ($p < 0,05$), gram-negative cocci which looked morphologically like gonococcus- 24 cases – 40 % ($p < 0,05$), *F.enterococcus* – 15 cases – 25 % ($p < 0,05$).

Parturients of the main group were divided into 2 subgroups: subgroup I - 40 women who were treated for three days with intravenous injections of metronidazole 100 ml (0.5 grams) three times a day (ornigil 100 ml (0.5 grams) twice daily) and fluoroquinolones 100 ml (0.2 grams) twice daily, intramuscular administration of cephalosporins 1.0 grams twice daily in case of temporary abandonment of breastfeeding. Subgroup II - 20 women who were treated for three days with intravenous injections of ornigil 100 ml (0.5 grams) twice daily and intramuscular administration of cephalosporins 1.0 grams twice a day. In this group the breastfeeding was partially preserved.

While using ornigil the woman can breastfeed after 12 hours, expressing some milk 2-3 hours before feeding, as the time of semiejection is 10-13 hours. The parturients of the II subgroup were injected intravenously with ornigil 100ml (0,5 grams) after the breastfeeding and an expression of milk to feed the baby, the next introduction of ornigil was 12 hours later after next feeding. Ornigil was generally injected every 13 hours.

Ceftriaxonum in low concentrations diffuses in breast milk. However, the use of the drug during lactation is possible when the expected benefit to the mother outweighs the potential risk to the fetus.

Treatment of the parturient in I and II subgroups differed in the interval of intravenous injections of imidazole derivatives and lack of use of fluoroquinolones, which cannot be taken during the lactation. After the treatment, an analysis of its efficacy was carried out, taking into account the presence of clinical manifestations and the average length of stay in hospital. The treatment of all 40 women in subgroup I was effective: they were discharged from hospital in satisfactory condition with positive dynamics. In this case the average length of stay in hospital was 4-5 days. Among the 20 women in subgroup II treatment was effective in 15 cases (75%), which does not differ significantly in the two groups. 5 women needed replacing antibacterial agents with a temporary cessation of feeding their babies, resulting in longer average length of stay in hospital up to 5-6 days.

CONCLUSIONS

1. For a single increase in body temperature over 38°C and some pathological discharges, trichomonads were diagnosed with simultaneous persistence of opportunistic and pathogenic microorganisms which requires the use of such a drug as imidazole in combination with other antibacterial agents.
2. While taking imidazole you only can breastfeed 12 hours after its intravenous administration and previous expressing milk, enabling partial breastfeeding and therapeutic effect.
3. An alternative to antibacterial drugs might be cephalosporins in case of microorganisms sensitivity and if they are not contraindicated during lactation.

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АЛЬТЕРНАТИВНЫЕ МЕТОДЫ ЛЕЧЕНИЯ ТРИХОМОНИАЗА В ПОСЛЕРОДОВОМ ПЕРИОДЕ

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Резюме. Нами проведено лечение 60 женщин с трихомониазом в послеродовом периоде с помощью внутривенного введения в течение трех дней метронидазола 100 мл (0,5 грамм) три раза в сутки, (орнигил 100 мл (0,5 грамм) дважды в сутки) и фторхинолонов 100 мл (0,2 грамма) дважды в сутки, внутримышечного введения цефалоспоринов 1,0 грамм два раза в сутки. Рожениц разделены на 2 подгруппы: I подгруппа - 40 женщин, которым проводить лечение при условии временного отказа от грудного вскармливания всеми перечисленными препаратами с четким соблюдением интервала введения лекарств, лечение было эффективным, II подгруппа - 20 женщин, с частичным сохранением грудного вскармливания, фторхинолоны не применялись, интервал введения орнигила колебался 12-14 часов, лечение было эффективным в 15 случаях (75%), что достоверно не отличается в двух подгруппах.

Ключевые слова: послеродовые инфекционные осложнения, послеродовой период, трихомониаз, урогенитальные инфекции

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