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THE ANALYSIS OF PREFERENCES OF OBSTETRICIANS-GYNECOLOGISTS AND THERAPISTS OF BELGOROD REGION IN HEARTBURN AND CONSTIPATION TREATMENT IN PREGNANT WOMEN IN COMPARISON WITH ALL-RUSSIAN DATA

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Summary. One of the most frequent accompanying pathologies during pregnancy – digestive tract diseases. **The work purpose** - to analyse the choice of medicinal therapy among doctors at heartburn and constipation treatment during pregnancy. **Materials and methods** - the analysis of anonymous questioning within carrying out the second stage of the All-Russian pharmacoepidemiological research "Epidemiology of medicines use in pregnant women" which was carried out from February to April, 2015 The comparison of the received results with results of questioning of doctors of Belgorod region was executed on the basis of received data. **Results and discussion.** About a half of doctors chooses for heartburn treatment in pregnant women antacids medicines, and also inhibitors of a proton pomp (omeprazole). To 10% of doctors prescribe insufficiently studied blockers of H2-histamine receptors. In constipation therapy more than 60% of doctors voted for salt laxative a lactulose. Less than 11% of doctors prescribed to patients unsafe medicines of senna and macrogol. **Conclusion**. The analysis of doctors' answers on tactics of medicinal therapy purpose at heartburn and constipation during pregnancy has shown that more than 68% of the practicing experts appoint the therapy, based on rational use of medicines.

Keywords: pregnancy, heartburn, constipation, lactulose, antacids medicines, inhibitors of a proton pomp, rational pharmacotherapy.

Introduction:

Digestive tract diseases – one of the most frequent pathologies which occur during pregnancy. The gastroesophageal reflux disease (GERD), especially one of its manifestations in the form of heartburn, takes the 2nd-3rd place among all pathology of a gastrointestinal tract and reaches 20-80% (more often in pluripara women). Frequency of occurrence of a constipation is 50%-60% among pregnant [1, 2].

Important factors of development of a gastroesophageal reflux disease are: violation of motility of a food lump on a gullet and a stomach, and also aggression of components of gastric contents. In pregnant women to the main contributory cause it is necessary to refer increase of abdominal pressure and concentration of the progesterone in blood which influence on relaxation of the lower esophageal sphincter [3], and as a result, increase of frequency of the gastroesophageal refluxes leads to heartburn, gaseous or sour eructation, pains behind a breast [1, 4].

Heartburn is feeling of discomfort or burning behind a breast which extends from epigastric region up and leads to violation of a normal way of life [2, 3, 5]. It can strengthen by body tilts, physical activity or horizontal position of a body after food. The heartburn occur at the first time during the gestation period meets so often that according to some information it is considered as a normal proceeding of pregnancy. However, the heartburn repeating more often than three times a week significantly reduces a quality of woman life.

The purpose of GERD treatment during the gestational period is the maximum use of agents of non-drug therapy, especially in the first trimesters of pregnancy [1, 4, 6]. Such actions are referred to change of lifestyle of a pregnant woman and feeding behavior. After meal it is necessary to avoid the compelled position of a body at which heartburn appear or increase – forward inclination of body, horizontal position, physical activity with a strain of abdominal muscles, wearing of tight belt. During sleep it is better to raise the head extremity of a bed by 10-15 degrees

Concerning a diet at heartburn and GERD it is necessary to adhere to fractional meal of small portions (to 6-7 times a day) [5, 6, 7, 8], to avoid products which irritate gastric mucosa and gullet – fried and spicy dishes, smoked products, row vegetables (especially which contain rough cellulose – a white cabbage, a garden radish, a radish, garlic), sour fruit and juice, carbonated drinks, black bread, chocolate, mushrooms. Optimum impact on a mucous membrane is exerted by steamed food or dishes made in oven, baked vegetables and fruit, low-fat sort of meat or fish, milk, cream, cottage cheese. These products belong to "natural antacid". Such simple actions help to avoid purpose of medicaments therapy in 60%-70% of cases of heartburn occur. Also in some situations it is enough to drink several drinks of water of room temperature for prevention of an eructation or heartburn [7, 9].

However, when these methods become insufficiently, for improvement of quality of pregnant woman life it is necessary to use medical preparations [7, 9, 11]. Traditionally for symptoms of heartburn reduction three types of drugs are applied which influence variously on a heartburn pathogenesis – reduce hydrochloric acid production in a stomach (the inhibitors of a proton pomp (IPP) and H2-gistaminoblokers (H2-GB)) and neutralize already emitted hydrochloric acid (antacid drugs). IPP (omeprazole) (category B on medicines classification of Food and Drug Administration (FDA) of USA) and antacid drugs are referred to the resolved drugs during pregnancy as the least soak up in a systemic blood stream through a mucosa of an esophagus and a stomach [8, 12].

One more widespread pathology during pregnancy is constipation – a chronic delay of defecation with intestines depletion less than three times a week [13]. The constipation is followed by such feelings as feeling of incomplete intestines depletion, the dense and small quantity of fecal masses, discomfort in a stomach, nausea, a loss of appetite, the suppressed mood. Frequency of occurrence of constipation at women during a gestation is caused by influence of hormones, progesterone in particular, on contractive activity of a large intestine which leads to lowering of physical activity of a thick gut. Reduction of level of a motilin in the II-III trimester of pregnancy, mechanical impaction of a large intestine by increased uterus are also impact on constipation appearance [13, 14, 15].

Emergence of constipation leads to a microbial content of a thick gut, penetration of pathogenic flora into a vagina and to the ascending infection of a **Belgorod Region**. The delay of the dejection can lead to premature discharge of amniotic fluid, threat of termination of pregnancy, inflammatory diseases of a mucous membrane of a uterus [14, 15, 16].

That's why it should be paid special attention to therapy of constipation during pregnancy. In most cases it turns out to cope with constipation during a gestation by non-drug ways– to increase physical activity, to diversify a diet with the rich fibers food (bran, dried apricots, prunes, lactic products, a white cabbage, beetroot, tomatoes, marrows) [13, 16]. It is necessary to limit the binding and locking products – white bread, strong black and green tea, coffee, chocolate, farinaceous dishes [15, 17].

When non-drug therapy becomes inefficient, it is necessary to resort to pharmaceutical medicines which are everywhere used during locks. The most effective, safe and reliable agent during a constipation in pregnant women is lactulose [16, 17, 18]. Being osmosaline laxative, the lactulose works in distal department of a thick gut, increases osmotic pressure and by that promotes water inflow in a gut that leads to dejection softening [19, 20].

In view of prevalence of GERD and constipation, its social significance and influence on quality of pregnant women life, a large number of complications, it become relevant to carry out a pharmacoepidemiological survey with the purpose of detection of doctors' preferences in choice of the main medicines of heartburn and constipation treatment in pregnant women.

Work purpose: To analyse the choice of AMT of doctors of Belgorod region of heartburn and constipation treatment in pregnant women. To compare data with the results received as a result of questioning which was carried out from February to April, 2015 in 4 federal districts of the Russian Federation – Central, Privolzhskom, Ural and Far-Eastern.

Materials and methods: At the heart of this research is the method of anonymous questioning within carrying out the second stage of the All-Russian pharmacoepidemiological research "Epidemiology of medicines use in pregnant women" which was carried

out from February to April, 2015. In the All-Russian pharmacoepidemiological research (ARR) 1066 questionnaires were analyzed from which 734 obstetricians-gynecologists and 332 therapists [21, 22].

Across Belgorod Region (BR) in questioning have participated: 94 doctors (28,7% of stationary and 69,1% of a polyclinic profile, p<0, 01) from which 77 (81,9%) obstetricians-gynecologists, 17 (18,1%) therapists (p<0,0001), with the general length of work less than 5 years - 21,3% of doctors, 5-10 years – 26,6%, 10-20 years of work – 20,2% of doctors and more than 20 years – 26,6%. Questioning was carried out on the basis of women's consultation clinic, policlinics and maternity home of Belgorod, and also in the central regional hospital.

The data received as a result of poll were entered and processed by Microsoft Exel.

Main part:

For definition of doctors' preferences at heartburn treatment the list of the most often used medicines was presented in the questionnaire:

1. Antacids.
2. H2- GB (ranitidine, famotidine).
3. IPP (omeprazole).
4. Other.
5. Don't prescribe.

Based on clinical references, antacids as the main agent at heartburn treatment in pregnant women had been chosen by 73,4% of doctors of BR (77,9% of obstetricians-gynecologists and 52,9% of therapists, p =0,03) and 75,4% of doctors of ARR (p =0,664).

Inhibitors of a proton pomp, omeprazole in particular, as the medicine of the second line applied in pregnant women, and belonging to the category B on FDA, had been chosen only by obstetricians-gynecologists of BR (5,2%) and 6,7% of doctors of ARR (p =0,363).

H2-GB (ranitidine, famotidine), which is not recommended for application for pregnant women because of the adverse influences on a condition of a fetus, had been chosen only by obstetricians-gynecologists of BR (7,8%) and doctors of the All-Russian research (6,2%), p =0,941.

8,5% of doctors of BR (5,2% of obstetricians-gynecologists and 23,5% of therapists, p =0,014) and 15,7% of doctors of ARR (p =0,063) had decided to refuse from therapy prescribing to the patients. Comparison of tactics of heartburn treatment in pregnant women among doctors of BR and ARR is presented in Table.

Table.

Comparison of tactics of heartburn treatment in pregnant women among doctors of Belgorod Region and the All-Russian research.

Medicines	Doctors of BR		Doctors of ARR (n=1066), %		p
	N=94	%	N=1066	%	
Antacids	69	73,4	804	75,4	0,664
IPP (omeprazole)	4	4,3	71	6,7	0,363
H2- GB (ranitidine, famotidine)	6	7,8	66	6,2	0,941
Don't prescribe pharmacotherapy	8	8,5	167	15,7	0,063

Note: IPP-inhibitors of a proton pomp, H2-GB – H2-gistaminoblokatory, BR – Belgorod region, ARR –All-Russian research, p – the Chi-square according to Pearson.

For definition of doctors' preferences at constipation treatment in women in the period of a gestation, the following possible answers have been offered:

1. Lactulose.
2. Senna preparations (Senna, Senade, Regulaks).
3. Macrogol.

Also such possible answers have been provided as "I don't prescribe" and "others", with an opportunity to enter the most preferred medicine.

Lactulose, as the depletive which is most suitable for pregnant women (safe and effective), had been chosen by 68,1% of doctors of BR (67,5% of obstetricians-gynecologists and 70,6% of therapists, p =0,806) and 75,0% of doctors of ARR (p =0,144).

Senna preparations, which are not recommended for application during pregnancy because of possible risks of termination of pregnancy or premature birth, development of a hyponatremia or hypokalemia, had been chosen by 7,5% of experts from BR (7,8% of obstetricians-gynecologists and 5,9% of therapists, p =0,786) and 8,6% of doctors of ARR (p =0,694.

Macrogol, the effective but still insufficiently studied during pregnancy medicine, had been chosen by 6,4% of doctors of BR (6,5% of obstetricians-gynecologists and 5,9% of therapists, p =0,926) and 9,9% of doctors of ARR (p =0,262) [22].

7,5% of doctors of BR (3,9% of obstetricians and 23,5% of therapists, p =0,005) and 11,5% of doctors of ARR (p =0,228) had decided not to prescribe medicines at a constipation in pregnant women.

Among the offered own options of treatment candles with glycerine (locally) were prevalent (6,4% of doctors of BR and 2,3% of doctors of ARR). It also should be noted the special option of constipation treatment during pregnancy by the medicine "Dyufaston" which was written in the questionnaires by 2 obstetricians-gynecologists of BR.

Comparison of tactics of constipation treatment in pregnant women among doctors of BR and ARR is presented in the Picture.

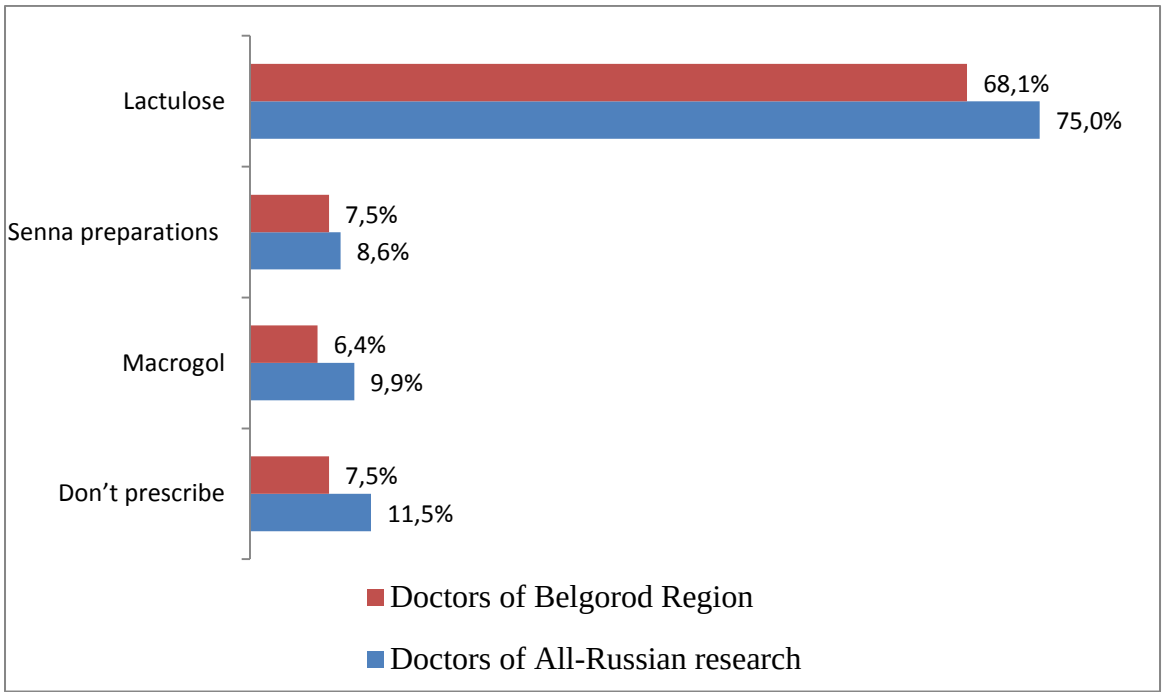

Figure. Frequency of assignment of medicines in case of constipation in pregnant women among obstetricians-gynecologists and therapists of Belgorod region and the Russian Federation.

Conclusion.

According to the carried-out questioning, about a half of doctors of Belgorod region and the All-Russian research appoint rational pharmacotherapy at GERB treatment in pregnant women. Antacids as medicine of the first line have chosen more than a half of doctors of BR and ARR, p =0,664. Less than 10% of doctors of various profile have chosen IPP (p =0,363).

Regardless of national clinical references, canons of a rational pharmacotherapy during pregnancy, doctors of BR and ARR (7,8% and 6,2% respectively) decided to prescribe to patients H2-GB which have low evidential base of use for women in the period of a gestation, therefore are potentially dangerous to a fetus.

It is paid much attention to constipation treatment during pregnancy because of high frequency of occurrence of this pathology among women of the gestational period. Accurately implement clinical recommendations and assign salt laxatives, lactulose in particular, more than a half of doctors of Belgorod region and the All-Russian research, p =0,144.

About 10% of doctors have chosen unsafe or isn't final researched in pregnant medicines macrogol and senna medicines. Also, among doctors of Belgorod region and the All-Russian research prevailed not really effective way of solving the problem of constipation – locally application of candles with glycerine, p =0,002.

Corollary:

According to questioning, more than 84% of obstetricians-gynecologists and therapists of Belgorod region and the All-Russian research conduct treatment of heartburn and constipations in pregnant women independently. The analysis of answers of doctors of BR and ARR on tactics of prescription of medicines showed that more than 68% of the practicing experts prescribe therapy, based on clinical references and a rational pharmacotherapy. Results of questioning showed once again relevance of a problem of adequate therapy of women during pregnancy at the accompanying pathology.

References

1. Tatiana Elokhina, Viktor Tyutyunnik, "Gastroesophageal reflux disease during pregnancy," Rus. Med. J. 19 (2008): 1243. [Full text]

2. Elena Ushkalova, "Treatment of gastroesophageal reflux disease in pregnant women," Gynecology 3 (2001): 89-90. [Full text]

3. "Pregnancy and gastroesophageal reflux disease (heartburn in pregnant women)", http://www.medsecret.net/akusherstvo/zabolevanija-organov-piwevarenija-pri-beremennosti/283-izzhoga-pri-beremennosti [Full text]

4. P. Katz, D. Castell, "Comprehensive Chest Pain and Swallowing," Gastroenterol Clin North Am 27 (1998): 153-167. [Abstract]

5. Vladimir Ivashkin and A. Sheptulin, Diagnosis and treatment of gastroesophageal reflux disease: A guide for physicians (Moscow: 2005), 30. [Full text]

6. Yuri Eliseev et al., "Gastroesophageal reflux disease and Barrett's esophagus: clinical and immunological parallels," Successes of modern science 10 (2005): 21-26. [Full text]

7. J. Ofman et al., "The clinical and economic impact of the various ways to treat gastroesophageal reflux disease," Aliment Pharmacol Ther. 16 (2002): 261-73. [Abstract]

8. C. Chen et al., "Reflux disease with or without symptoms of dyspepsia," Dig Dis Sci 5 (2004): 715 -719. [Abstract]

9. D. Istomin, "Gastroesophageal reflux disease," Bulletin of new medical technologies 8 (2001): 62-64. [Abstract]

10. A. Mikhailov and V. Rymasheuski, "Gastroesophageal reflux disease," Medical News 8 (2011), http://cyberleninka.ru/article/n/gastroezofagealnaya-reflyuksnaya-bolezn-2 (reference date: 20.12.2016). [Full text]

11. P.Katz et al., "Guidelines for the Diagnosis and Management of Gastroesophageal Reflux Disease," Am J Gastroenterol 108 (2013): 308–328. [Full text]

12. "Pregnancy and constipation," http://www.medsecret.net/akusherstvo/zabolevanija-organov-piwevarenija-pri-beremennosti/291-zapor-pri-beremennosti (reference date 20/12/2016) [Full text]

13. S. Muller-Lissner et al., "Myths and misconceptions about chronic constipation," Am J Gastroenterol. 100 (2005): 232-42. [Abstract]

14. H. Luoto and K. Laitinen, "Effect of pregnant women receiving probiotics on the outcome of pregnancy and childbirth and the postnatal period: a double-blind, placebo-controlled study," Br J Nutr. 103 (2010): 1792-9. [Abstract]

15. Vazquez SZ Constipation, hemorrhoids and heartburn during pregnancy // BMJ Clin Evid. 2008 : 1411. [Abstract]

16. G. Longstreth et al., "Functional bowel disorders," Gastroenterology 130 (2006): 1480-1491. [Abstract]

17. S. Burkov, Diseases of the digestive organs and pregnancy. In the book .: A Quick Guide to gastroenterology (Moscow: "M-Vesti", 2001).

18. S. Burkov, "Constipation during pregnancy: a look at the problem," Rus. Med. J. 1 (2006): 28. [Full text]

19. F. Hallmann "The toxicity of commonly used laxatives," Med Sci Monit, 6 (2000): 618-628. [Full text]

20. N. Chuhareva et al., Results nationwide pharmacoepidemiological study «Epidemiology of drugs during pregnancy" (the second stage)," (paper presented at the XVI All-Russian Scientific Forum "Mother and Child», Moscow, 2015), http://elibrary.ru/item.asp?id=26071566 [eLIBRARY]

21. Chuhareva N.A., Bontsevich R.A., Shchurovskaya K.V., Denisova D.S. The choice of antimicrobial therapy among physicians in the treatment of gestational pyelonephritis. Research result: pharmacology and clinical pharmacology. Vol. 2, №3 (2016): 46-50. [Full text]

22. K. Schaefer, K. Spielmann, K. Vetter. Drug therapy during pregnancy and lactation (M: Logosfera, 2010).