USE OF ANTIMICROBIALS IN ADULT OUTPATIENTS WITH PEPTIC ULCER DISEASE IN RUSSIA

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Introduction

Up to 10% of the world population has *peptic ulcer* disease (PUD). Morbidity from PUD in Russian Federation in 2003 г. was 1,268 cases on 100,000 inhabitants and has not decreased during the last 5 years.

In spite of significant progress in the treatment of PUD in general, in Russia this problem is still far from its solution that leads to the high frequency of gastro-duodenal bleedings, ulcer perforations and surgical manipulations.

The study "Ulcer" was designed to evaluate the real practice of administration of antimicrobials and other drugs in adult outpatients with peptic ulcer disease in Russia.

Methods

Pharmacoepidemiological analysis of 1398 case histories of adult outpatients treated for peptic ulcer disease during 2004-2005 in geographically distinct cities of Russia (Kazan, Krasnoyarsk, Moscow, Novosibirsk, Rostov, St. Petersburg, Smolensk) was performed (figure 1). Mean age of the patients was 47 years (range from 16 to 87 years); 798 (57.1%) were male, 600 (42.9%) - female. 22.5% of cases were represented by the first clinical episode of PUD. Mean duration of PUD in the patients included in the study was 33.5 months. In 75.4% of patients ulcer was localized in the stomach, in 24.6% - in duodenum, in 0.9% - in both stomach and duodenum. Complications of PUD were registered in 10.5% of patients.

Input of the data to electronic database (based on Microsoft Access 2003) has been done by double entry. Statistical analysis was performed using SAS version 8.02 for Windows 98.

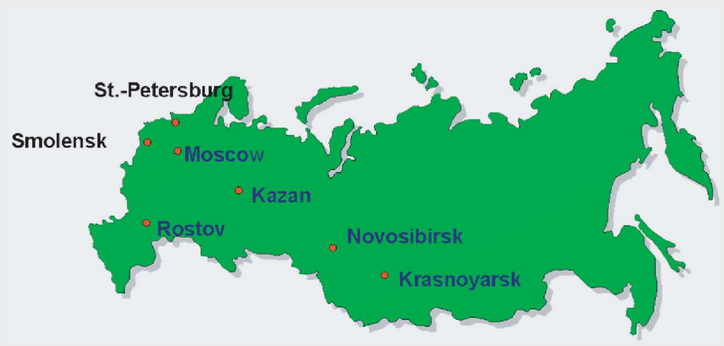

Figure 1. Geographical location of centers participating in the study

Results

Overall, 4735 drug administrations were registered in 1398 patients included in the study. The rates of administration of different groups of drugs are presented in table 1.

Overall only 18% of patients were administered with adequate combinations of antimicrobials and proton pump inhibitors.

Adequate antimicrobial therapy was administered in 31.7% of cases. In 34% of patients non-rational combinations of antimicrobials were used. 30% of patients received only one antimicrobial agent. In 4.3% of cases inadequate dosing regimens were noted. Among antimicrobials (figure 2) amoxicillin was used most frequently (34%), followed by colloid bismuth subcitrate (23%), clarithromycin (20%), metronidazole (18%), furazolidone (3%), and tetracycline (1.5%). Antimicrobials with little or no activity against *H.pilory* such as oxacillin, ampicillin, midecamycin were used in 1% of cases.

Concerning rational combination of antimicrobials, the following regimens were used: in 26.7% of all patients studied - amoxicillin 1000 mg bid + clarithromycin 500 mg bid during 7 days; in 4% - metronidazole 500 mg tid + clarithromycin 500 mg bid during 7 days; in 1% - bismuth subcitrate 120 mg qid + metronidazole 500 mg tid + tetracycline 500 mg qid.

Table 1. Rates of administration of different groups pf drugs to the patienst included in the study

	Number of administrations	% of administrations
Antisecretory drugs	1724	36.4
Antimicrobials	1693	35.8
Antacids	785	16.6
Drugs with not proved clinical efficacy	509	10.7
Combined drugs	24	0.5

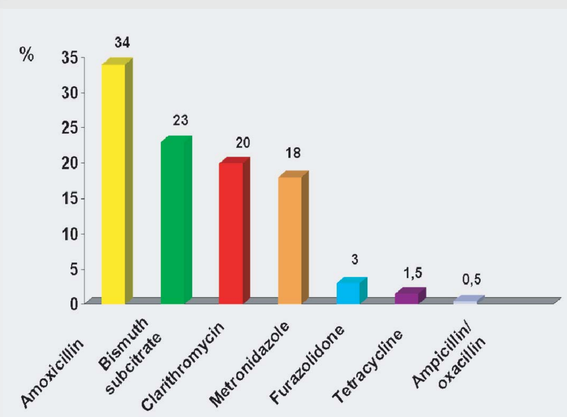

Figure 2. Rates of administration of different antimicrobials

Conclusions

The real practice of administration of antimicrobials for treatment of peptic ulcer disease in Russia shows frequent non-compliance to existing guidelines that highlights the need in organizational and educational actions. The most frequent mistakes in the management of peptic ulcer disease detected were monotherapy, use of inadequate combinations of antimicrobial agents and inadequate dosing regimens.