PATTERNS OF ANTIMICROBIAL PRESCRIBING FOR OUTPATIENT ADULTS WITH ACUTE SINUSITIS

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BACKGROUND

Acute sinusitis (AS) is a common disease for outpatient adults associated with significant morbidity, reduced quality of life, lost time from work and treatment expenses. Systemic antimicrobials (AM) remain the mainstay of AS management and are recommended for at least moderate or severe AS cases. The appropriate antibiotic therapy is essential to return the sinuses back to health, to prevent severe complications such as meningitis and brain abscess and to decrease the development of chronic disease.

OBJECTIVES

The aim of the study was to evaluate the frequency and patterns of antimicrobials (AM) prescribing for outpatient adults with AS in different regions of Russia.

METHODS

The study was carried out in randomly chosen public outpatient departments in eight regions of Russia (Figure 1). In each department 50 consecutive cases of AS, registered in 2001, were selected for retrospective analysis. The appropriateness of AM choice including dosage regimen and route of administration were assessed in accordance with the available recommendations.[1,2]

Figure 1. Cities participated in the study

RESULTS

Altogether 1,529 cases of AS in patients aged from 16 to 81 (539 males, 990 females, average age 37.1+13.2) were included into the study. The majority of patients underwent medical treatment for AS by ENT-specialists.

RESULTS

The frequency of systemic AM usage varied significantly between participated cities (Figure 2). The most commonly prescribed AM were lincomycin (18.2%) and amoxicillin (14.7%); followed by ciprofloxacin (13.1%), ampicillin (10.9%), doxycycline (8.5%). The AM choice in the sites is shown on Figure 3.

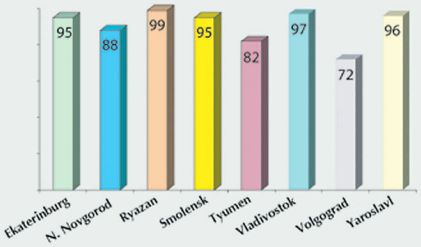
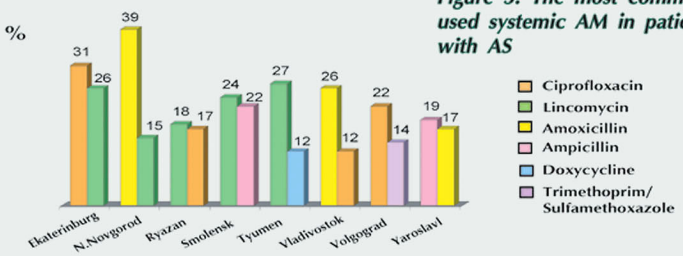


Figure 2. Frequency of systemic AM usage in patients with AS

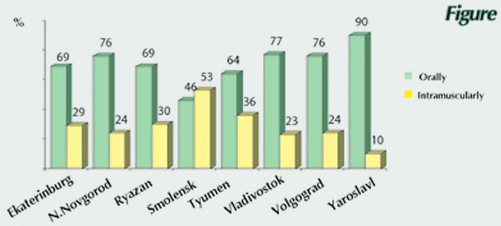
Figure 3. The most commonly used systemic AM in patients with AS



There were 41 different combinations of AM administered to 99 patients. The top three of them - doxycycline + metronidazole, amoxicillin + lincomycin and midecamycin + sulfonamides were used in 18.2%, 10.1% and 7.1% cases, respectively.

In the majority of cases (70%) AM were prescibed orally. The high rate of intramuscular administration was typical for Smolensk, Tyumen and Rjazan (Figure 4).

Figure 4. Route of systemic AM administration in patients with AS



The average course of AM treatment was 7.6+3.8 days and varied from 6.0+3.9 days in Tyumen to 9.5+6.1 days in Volgograd. Medical treatment was supplemented by sinus puncture and drainage in 17.4% of patients.

CONCLUSION

1. There were observed the significant deviations of the antibacterial therapy of outpatient adults with AS from currently available guidelines.
2. In the majority of cases the antibacterial treatment of AS was not optimal in respect to AM choice and the way of their prescribing.

[1] L. Stratchounski, E. Kamanin, A. Tarasov, e.a. Antibacterial therapy of sinusitis: guideline for clinicians. Clinical Microbiology and Antimicrobial Chemotherapy 1999; 1: 83-88.
[2] V. Snow, C. Mottur-Pilson and J.M. Hickner. Principles of Appropraite Antibiotic Use for Acute Sinusitis in Adults. Ann Intern Med 2001; 134: 495-497.