

## Efficacy of enterosorbents for patients with respiratory infections

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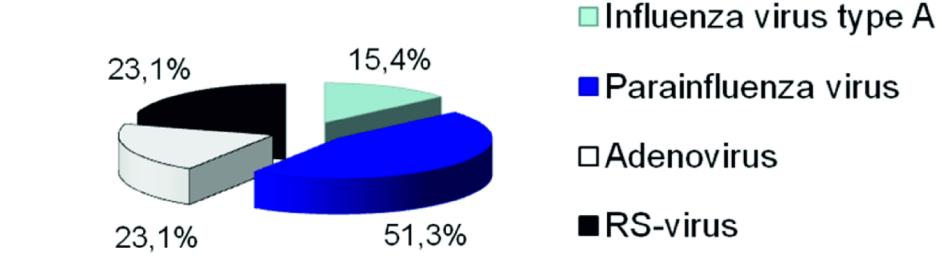
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**Background.** In the pathogenesis of influenza and other acute respiratory viral infectious one of the leading syndrome is intoxication. For the detoxification at infectious diseases commonly are used enterosorbents. One of them is enterosgel (methylsiliconic acid hydrogel).

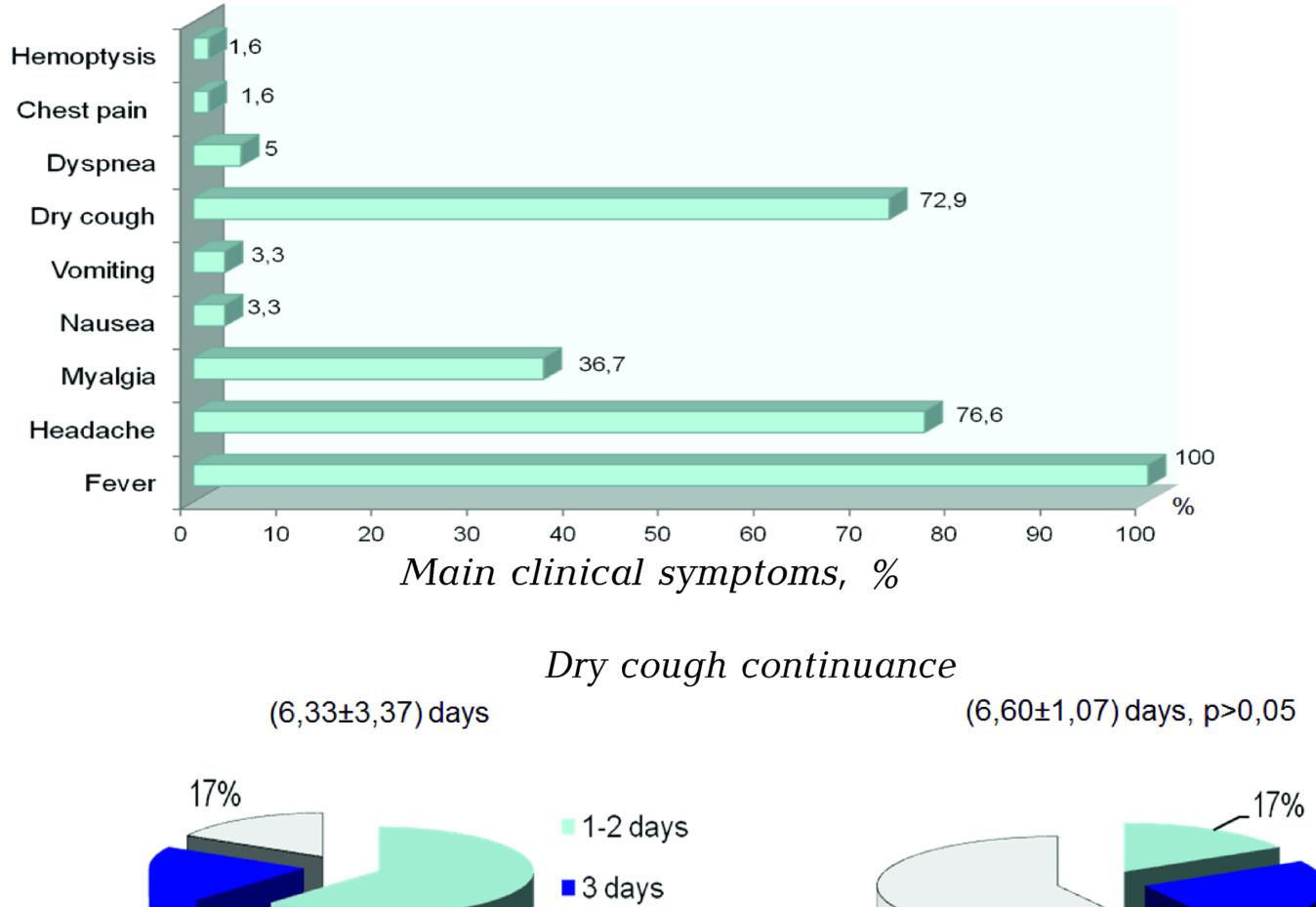
Methods			Groups	Treatment	
Virological detection	Direct fluorescent antibody test (DFA, throat swabs)		I (primary), n=30	Oseltamivir (75 mg × 2 time per day, during 5 days) and	
Intoxication indices (middle-mass molecules, MMM254, MMM280)	Spectrofotometry (serum)			Enterosgel (15 g × 2 time per day, during 7 days)	
		II (comparison	<b>Oseltamivir</b> (75 mg × 2 time per day, during 5 days)		
Immune complex (CIC)	Spectrofotometry (serum)		group), n=30		

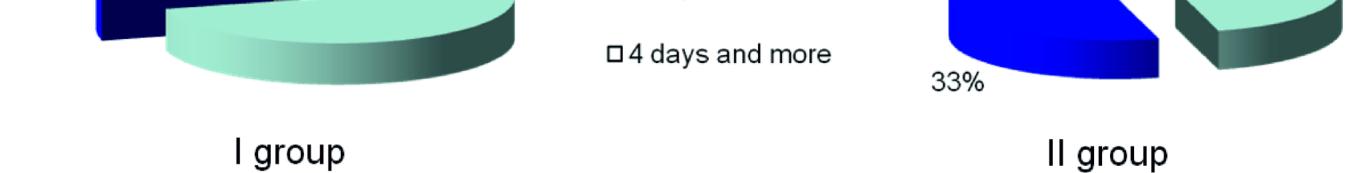
Virological determination was positive in 65.0% patients.



## Etiological structure of Influenza and other ARVI in observed patients

Clinical manifestation of disease in both patients groups did not differ. The main syndrome was intoxication, which manifested with fever, headache, myalgia, nausea, vomiting. Catarrhal syndrome manifested by dry cough, dyspnea, chest pain and hemoptysis.





1-2 days

3 days

*Fever continuance* 

(3,00±0,21) days, p>0,01

21%

46%

The frequency of fever continuance in patients with ARVI depending on treatment

71%

 $(2,21\pm0,21)$  days

21%

The fever duration 4 day and more in the first group was in 2.5 times less then the second one.

When ARVI was complicated by pneumonia fever was longer –  $(3,67\pm0,23)$  and  $(4,50\pm0,34)$  days, but was observed a tendency to reduce the frequency of fever for 4 days or more in the patients of first group ( $66,0\pm15,8$ ) against ( $85,7\pm13,2$ )% patients in the second group (p>0,05).

Dependence of the main symptoms due to severity for disease and treatment

Syndromes	l gr	oup	II group				
	Course of the disease						
	Moderate	Severe	Moderate	Severe			
х	n=14	n=16	n=18	n=12			
Fever	1,93±0,27	3,19±0,23***	2,28±0,24	3,67±0,55***			
Intoxication	1,14±0,14	2,56±0,32***	2,50±0,28*	4,50±0,31 <sup>**, ***</sup>			
Catarrhal	1,43±0,48	5,19±0,66***	4,28±0,85*	9,42±2,10** <sup>,***</sup>			
Days at hospital	8, <b>64±0</b> ,86	13,19±1,77***	9,61±0,86	17,00±2,12***			

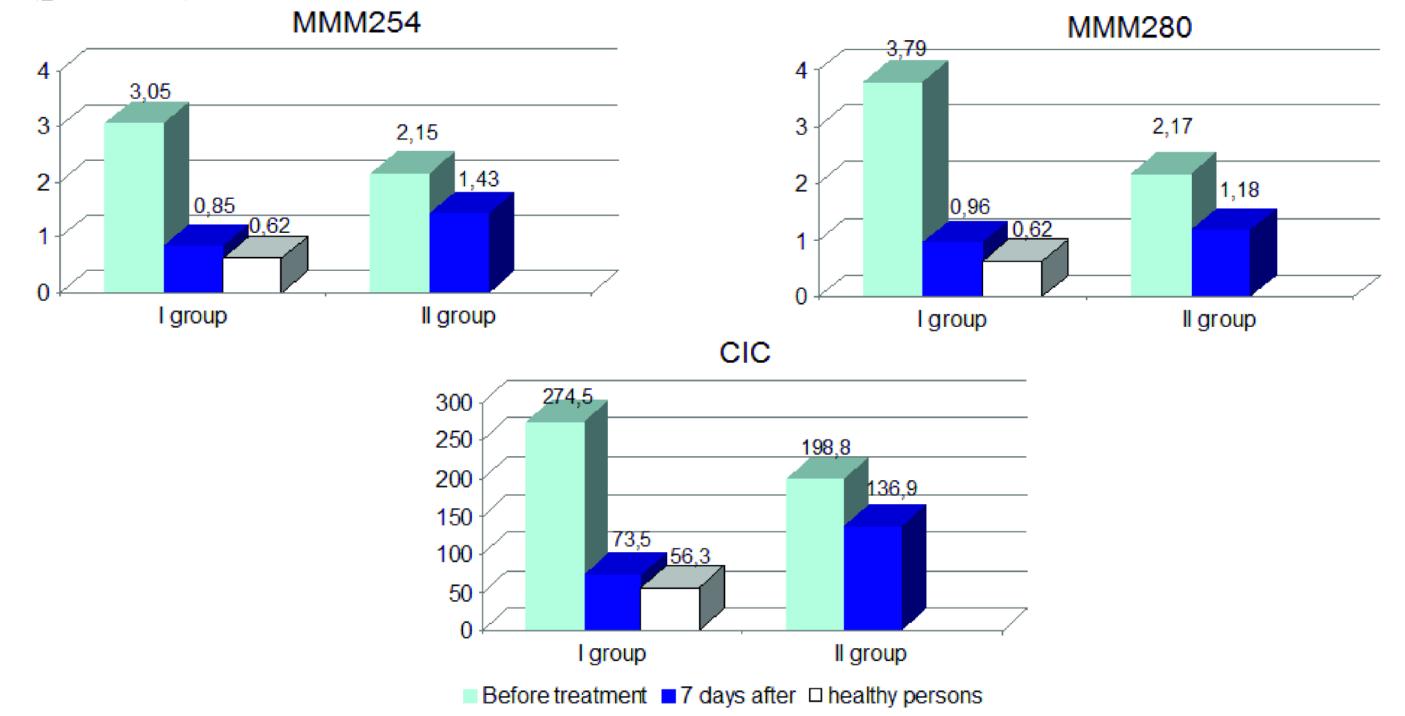
 $\begin{array}{c} 21\% \\ 62\% \\ I \text{ group} \end{array} \begin{array}{c} 4 \text{ days and more} \\ 58\% \\ I \text{ group} \end{array} \begin{array}{c} 25\% \\ 58\% \\ I \text{ group} \end{array}$ 

The frequency of cough continuance among patients with ARVI depending on treatment

The cough duration 4 day and more in the first group was in 3.4 times less then the second one (p<0,01).

In all patients with pneumonia cough was lasting more than 4 days and more, but with tendency to shortening in patients of the first group  $(55,6\pm16,5)$ % against the second  $(83,3\pm15,2)$ %, t=1,24, p>0,05.

At the time of admission MMM254, MMM280, CIC was significantly higher in all patients especially during severe case of disease and with **pneumonia**. But in patients who used enterosgel in combine treatment MMM254, MMM280, CIC reduce more faster (p<0,01).



Notes: \* - difference in the groups with moderate severity (p<0,05), \*\* - groups with severe course, \*\*\* - between moderate and severe course in one group.

Endogenous intoxication indices in patients with ARVI

**Conclusion.** Complex treatment of ARVI with enterosgel allowed to improve clinical features and reduced the toxic pressing. The decreasing of laboratory parameters endogenous intoxication in ARVI confirms reducing intoxication and justifies the expediency of enterosgel in complex therapy.