Essential Oils of *Origanum Vulgare L.* and *Origanum Tyttanthum Gontsch.* as the Remedy of Struggle against Intrahospital Infections

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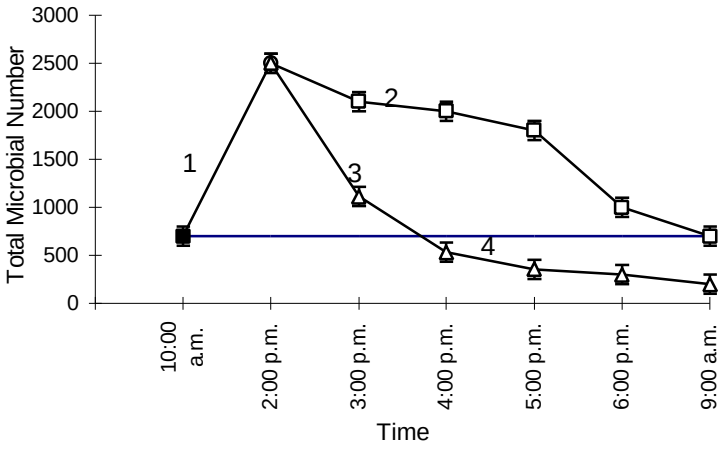
Search of the alternative means, possessing a wide spectrum of influence on pathogenic microflora is the urgent point due to expansion of a spectrum of patogeneis of intrahospital infections, change of their biological properties, resistance to antibiotic and the high level of communicable diseases. Antibacterial effect of essential oils of some plants from Lamiaceae family is known. We have studied two representatives of *Origanum* (*Lamiaceae*) such as *O. vulgare L.* and *O. tyttanthum Gontsch.*

The aim of the work was to study the sanation effect of the essential oils on intrahospital infections. The clear sanation effect of the essential oils of *O. vulgare* and *O. tyttanthum* in rooms with increased bacterial microflora has been observed (Dressing room of a Surgial department of Military district Hospital ? 333, Novosibirsk; Novosibirsk Burn Centre of the clinical Hospital). The rooms had been prepared for the usual work by UV-irradiation overnight. Samples of the ethereal oils were sprayed inside the rooms studied at day time (about 2:00 p.m.) when the maximum of the total microbial number was observed. The total microbial number was measured for 18 hours.

The period of reaching of the control level of the total microbial number (from the peak of pollution) lasts from an hour (*O. vulgare*) to 4 hours (*O. tyttanthum*) (see the Figure). Thus, essential oils of *O. vulgare* and *O. tyttanthum* can be considered as a base for development of new highly active drugs to decrease the level of intrahospital infections. The material is confirmed by the patent of the Russian Federation.

Figure. Influence of essential oils of *O. vulgare* and *O. tyttanthum* on air microflora of a dressing room.



1. Change of the total microbial number in air during work of dressing room;
2. Decrease of the total microbial number due to the use of traditional cleaning methods (natural ventilation, washing) and UV-irradiation from 5:00 p.m. to 9:00 a.m. of the next day;
3. Decrease of the total microbial number after the dispersion of essential oils *O. vulgare* or *O. tyttanthum*;
4. The state standard of the air total microbial number.