From the clinical material taken from III patients, 171 strains of opportunistic bacteria belonging to 11 different taxonomic groups were isolated and identified. According to the constancy index, frequency of occurrence, Margalef species richness index, Whittaker species diversity and Simpson and Birger-Parker species dominance, the leading pathogens of infectiousinflammatory processes in modern conditions are Staphylococcus aureus (constancy index 68.47 % 0.6 index, diversity 14.15, species dominance of Simpson 0.467 and Berger - Parker 0.685). Streptococcus pyogenes (persistence index 20.72 %), Escherichia coli (19.82 %), and Proteus mirabilis (persistence index 15.32 %) are important in the formation of infectious and inflammatory processes in the soft tissues. In addition to anaerobic facultative and aerobic bacteria, obligate anaerobic bacteria (Bacteroides fragilis, Peptostreptococcus prevoti, Prevotella melaninogenica) are isolated in 8.10 % of patients. In 50 (45.05 %) patients the infectious-inflammatory process was formed by monoculture of S. aureus in 19.33 patients, E. coli in 13.46 %, S. pyogenes in 11.54 % of patients and rarely S. epidermidis and P. mirabilis. Associations consisting of two taxa were found in 61 (54.95 %) patients. The most frequent associations were S. aureus, P. mirabilis (11.54 %), S. aureus and P. aeruginosa (8.65 %), S. aureus and S. pyogenes, and S. aureus and E. coli (7 each), 69 %). S. aureus and E.cloacae (6.73 %). Infectious and inflammatory processes caused by the association of different taxa had a more severe course.

The localization of the causative agent of the infectious-inflammatory process of the soft tissues (in the exudate or in the tissue of inflammatory process) is of key importance for the development of treatment tactics. S. aureus and E. coli were found to be mainly localized in tissue $(6.81 \pm 0.37 \ \text{lgCFU} \ / \ \text{g})$ and $5.31 \pm 0.41 \ \text{lgCFU} \ / \ \text{g})$ and to a lesser extent in exudate $(5.27 \pm 0.47 \ \text{lgCFU} \ / \ \text{g})$ and $3.87 \pm 0.29 \ \text{lgCFU} \ / \ \text{g})$, respectively; P. mirabilis is localized in the soft tissues in a concentrate of $4.90 \ \text{lgCFU} \ / \ \text{g}$, and in exudate only $3.00 \ \text{lgCFU} \ / \ \text{g}$. S. pyogenes and S. epidermidis are found in higher concentrations in the exudate $(6.17 \pm 0.49 \ \text{lgCFU} \ / \ \text{g})$ and $3.78 \pm 0.17 \ \text{lgCFU} \ / \ \text{g}$. However, $4.78 \pm 0.31 \ \text{lgCFU/g}$ and $3.08 \pm 0.16 \ \text{lgCFU} \ / \ \text{g}$, respectively. In patients, the etiological agent is S. aureus, E. coli and P. mirabilis. It is advisable to use galvanization to deliver the antimicrobial agent to the tissue.

Sydorchuk L.I. DESTABILIZATION OF COLONIC LUMINAL MICROBIOME IN CHRONIC OBSTRUCTIVE BRONCHITIS

Department of Microbiology and Virology Bukovinian State Medical University

The state of dynamic equilibrium between the organism, its microbiome and the environment, which has developed evolutionarily, and due to which the human body is at the optimal level, is called eobiosis (normobiosis). Disturbance of eobiosis, which is expressed in the development of destabilization in different biotopes and is associated with changes in the normal taxonomic composition and function of the symbiotic microbiota, means dysbiosis or dysbacteriosis. Chronic obstructive bronchitis is one of the most common inflammatory human diseases. Close anatomical location, physiological relationships, and general systemic immune responses suggest that changes in the respiratory microbiota should be associated with destabilization of the colon microbiome.

In 63 patients with chronic obstructive bronchitis by bacteriological and mycological methods the taxonomic composition and population level of the colonic microbiome were studied, its microecological indices in the "host-microbiome" ecosystem was established. The control group consisted of 20 practically healthy individuals.

Obligate anaerobic bacteria of the genus *Bifidobacterium* (in 20 (31.75 %) patients), *Propionibacterium* – (in 5 (7.94 %) were found to be the most important in the colon microbiome in patients with chronic obstructive bronchitis concerning representation and multifunctional role. Under such conditions, the colonic biotope is contaminated and colonized by pathogenic enterobacteria: enteropathogenic *E. coli* - in 5 (7.94 %) patients, enterotoxigenic *E. coli* - in 4 (6.35 %), enteroinvasive *E. coli* – in one (1.59 %) patient, *E.coli Hly* + - in 12 (19.05 %), *E.coli*

Lac- - in 16 (25.40 %) patients. In addition, other opportunistic enterobacteria (*P. vulgaris*, *P. mirabilis*, *K. pneumoniae*, *E. cloacea*, *C. freundii*, *S. marcescens*, *H. alvei*), obligate anaerobic anaerobic opportunistic bacteria (*Bacteroides*, *P. niger*, *Clostridium*), facultative anaerobic and aerobic bacteria (bacteria of the genus *Staphylococcus*, *Enterococcus*) and yeast-like fungi of the genus *Candida* (*C. albicans*, *C. tropicalis*) appear in the biotope.

Studies of the population level of colonic microbiome have shown specific changes in the number of microbial populations. There is a deficiency of bacteria of the genus *Bifidobacterium* by 78.89 %, bacteria of the genus *Lactobacillus* - by 22.62 %, *Propionibacterium* - by 51.10 %. Under such conditions, the population level of opportunistic bacteria increases significantly: bacteria of the genus *Clostridium* - 3.11 times, *P. niger* - 2.14 times, bacteria of the genus *Bacteroides* - by 51.10 %. Bacteria and yeast-like fungi of the genus *Candida* in the colonic microbiome of patients with chronic obstructive bronchitis reach by taxonomic composition, microecological indices (constancy index, frequency of occurrence, Margalef's index of species richness, Whittaker's diversity, species dominance of Simpson, Barger-Parker and quantitative dominance coefficients, significance and role of the taxon in the self-regulation of the colon microbiome) determined degrees of destabilization in the microbiota (dysbiosis/dysbacteriosis). Dysbiosis was found in 32 (50.79 %) patients, dysbacteriosis - in 31 (49.21 %). None of the normoflora was established in contrast to the control group. The first degree of dysbacteriosis/dysbiosis was found only in 4 (6.35 %), the second - in 6 (9.52 %), the third and fourth - 53 (84.13 %) including the fourth degree in 20 (31.75 %) patients.

Thus, the course of chronic obstructive bronchitis is accompanied by profound disorders of the colonic microbiota, which are expressed in qualitative changes in taxonomic composition and quantitative changes in population levels of individual taxon, as well as contamination and colonization of this habitat by pathogenic and opportunistic microorganisms.

Yavorenko K.

IMPACT OF AMBROSIA ARTEMISIIFOLIA L. ON THE HEALTH OF CHERNIVTSI REGION RESIDENTS. COMPREHENSIVE PROGRAM OF AMBROSIA ARTEMISIIFOLIA L. ELIMINATION IN CHERNIVTSI REGION

Department of hygiene and ecology Bukovinian State Medical University

Ambrosia artemisifolia L. is an allergen weed that is the first among the top most dangerous quarantine plants in Ukraine, which in 75 years has passed all stages of expansion: primary penetration, resettlement and subsequent naturalization.

Due to pollution of more than 70% of the landscapes of Ukraine with ragweed, the number of allergic diseases among the residents of Chernivtsi region is constantly growing. In Chernivtsi region the centers of this quarantine weed occupy thetotal area of 804,49 hectares. At 0.1 m², during the flowering season, this plant produces 8 billion pollen grains, repeated inhalation of which causes allergies, accompanied by symptoms such as fever, tearing, conjunctivitis, impaired vision and pulmonary edema. Moreover, during this period, asthmatics suffer from its pollen, which exacerbates asthma attacks.

"Devil's pollen" can damage the mucous membranes so much that even a previously completely healthy person are at risks of becoming a lifelong allergy sufferer after two weeks of inhaling air in the "foci" of ragweed flowering.

According to the World Health Organization, every fifth inhabitant of the planet, including those in Ukraine, suffers from allergic diseases or has allergy symptoms. Unfortunately, there are currently no universal pharmacological drugs for the prevention and protection of human health against allergies to ragweed. Ragweed seeds are transferred with waste, straw, vehicles, animals and people, water during irrigation, showers and floods. Seed viability can be maintained for up to 40 years. The most appropriate comprehensive measure to control quarantine weeds is the disposal of this allergenic plant using agronomic, mechanical and chemical methods.