Features of the spectrum of detected pathogens and the state of the main systems organs in patients with acne according to the autonomic resonance test E.G. Dostanko1, V.Yu. Dostanko1, N.Yu. Dostanko2 (1ChMUP "Center for Resonant Medicine" INFOMED ", 2Belarusian State Medical University, Minsk)

Pathogens and state of the main organ systems according to vegetative resonance test data in patients with acne EG Dostanko1, V.Yu. Dostanko1, N.Yu. Dostanko2 (1Private Medical Unitary Enterprise "Center of Resonance Medicine" INFOMED ", 2Byelorussian State Medical University, Minsk, Belarus)

#### SUMMARY

The study included 30 patients with complaints of acne during 2016–2017, as well as 30 patients of the control group of the corresponding age and gender without acne. All patients underwent a comprehensive examination by the method of vegetative resonance test. The range of markers tested was the same in all patients. Almost a quarter of patients with acne showed signs of inflammation in the large intestine that were absent in the control group, and pathological changes in the endocrine system in patients with acne were more than twice as likely as in the control group (63.3% vs 30%, respectively , p = 0.019, Fisher's exact test). Significant differences between acne patients and the control group concerned the spectrum and severity of the bacterial load, as well as the load of pathogens such as Candida and ticks. In patients with acne, Candida albicans (80% vs 27%, p = 0.0001, Fisher's exact test) and Candida parapsilosis (73% vs 23%, p = 0.0002, Fisher's exact test) were detected three times more often, and also, the level of mushroom load in general was significantly higher (p = 0.0001, Pearson's criterion -2). Staphylococcus epidermalis (70% vs 3%, p <0.0001, Fisher's exact test), Propionebacterium acne (77% vs 0%, p <0.0001, Fisher's exact test) and Klebsiella pneumonia ( 57% vs 23%, p = 0.017, Fisher's exact test). More than half of patients with acne had dust mites and 30% had Demodex mites, while in the control group these pathogens were not detected (53% vs 0%, p <0.0001 and 30% vs 0%, p = 0.0019, respectively, Fisher's exact test).

Key words: acne, ART, colitis, Candida albicans, Staphylococcus epidermalis, Propionebacterium acne, Klebsiella pneumonia, Demodex mites.

### RESUME

We observed 30 patients with complaints of acne during 2016–2017, as well as 30 patients of the control group of the corresponding age and sex without acne. All patients underwent a comprehensive examination by the method of Vegetative Resonance Test. All patients were examinated with the similar spectrum of the tested markers. Almost a quarter

of patients with acne showed signs of inflammation of the large intestine which was absent in the control group (p = 0.011, Fisher's exact test). Pathological changes of the endocrine system were more than twice as frequent in acne patients as in the control group (63.3% vs 30%, respectively, p = 0.019, Fisher's exact test). We revealed significant differences between the patients with acne and control group in the spectrum and severity of bacterial load, as well as in such pathogens as Candida fungi and mites. Candida albicans and Candida parapsilosis were determined three times more often in acne patients (80% vs 27%, p = 0.0001 and 73% vs 23%, p = 0.0002, respectively, Fisher's exact test) and these patients also had a significantly higher level of fungal load (p = 0.0001, Pearson criterion -2).

Staphylococcus epidermalis (70% vs 3%, p <0.0001, Fisher's exact test), Propionebacterium acne (77% vs 0%, p <0.0001, Fisher's exact test) and Klebsiella pneumonia (57% vs 23%, p = 0.017, Fisher's exact test) were more frequently determined in patients with acne too. Approximately a half of acne patients had dust mites and 30% of acne patients had Demodex mites burden revealed, while these pathogens were not detected in the control group (53% vs 0%, p <0.0001 and 30% vs 0%, p = 0.0019, respectively, Fisher's exact test).

Keywords: Acne, VRT, endocrine system, colitis, Candida albicans, Staphylococcus epidermalis, Propionebacterium acne, Klebsiella pneumonia, dust mites, Demodex mites.

### INTRODUCTION

Acne is a fairly common and urgent problem in young people. According to the literature, from 80 to 90% of people under the age of 25 suffer from acne and a little more than 10% of people over 25 years old [1, 2]. As a rule, this condition is chronic in nature, resistant to traditional treatment, requiring constant expenditure of funds and time without a result adequate to these investments, and contributes to the formation of low self-esteem and depression in such patients up to suicidal attempts [1, 2, 3, 4]. Drug therapy, often carried out in such patients (antibiotics, especially systemic, oral contraceptives, antiandrogens, retinoids), is fraught with serious side effects and may even aggravate the condition of the skin and the patient as a whole [1, 3, 4].

## MATERIALS AND METHODS

We observed 30 patients with papulo-pustular acne who applied to the Center for Resonant Medicine "INFOMED" with complaints of acne during 2016-2017, as well as 30 patients of the same age and gender without acne who applied to our center during the same period of time. ... All patients underwent a comprehensive examination by the method of autonomic resonance test (ART), in addition, anamnesis was collected from all patients during the initial examination, and the condition of the skin was assessed. The examination by the ART method included an assessment of the state of the immune, autonomic nervous system of patients, diagnosis of the presence of allergies and a tendency to autoimmune reactions, the identification of external burdening by various pathogens (viruses, bacteria, fungi, protozoa, helminths, ticks, etc.), as well as radioactive, electromagnetic, geopathogenic load and definition fortunes major organs and systems (gastrointestinal tract, respiratory tract, genitourinary system, endocrine system) [5, 6]. Testing of all these parameters was carried out using an electrotherapeutic apparatus "PROLOG-02 EPT" (manufactured by NPP "REMA" RB, RU IM-7.5253 / 0903).

In addition to establishing the presence or absence of external burdening by pathogens and environmental factors, we calculated the index of the patient's total burden of the bacterial flora, the index of the viral and mycotic load on the patient, the load of protozoa and helminths, as well as the index of the total load of all pathogens as the sum of all identified types of pathogens of the corresponding type according to ART data, since the spectrum of tested markers was the same in all patients. The state of the immune system was assessed in points from 1 to 8 to determine the severity of its tension or depletion, and the severity of tension or depletion of the autonomic nervous system was assessed in points from 1 to 5, with higher values corresponding to a greater severity of the tested state.

## RESULTS AND DISCUSSION

Each group of examined patients included 24 women and 6 men aged 16 to 59 years. The average age in the main group was 30.7 years (95% confidence interval (95% CI) was 27.4–34.1), and in the control group - 31.2 years (95% CI 27.8–34.6), there were no significant differences in gender and age (p = 0.797, Mann-Whitney test) in the compared groups.

In all patients of both groups, signs of biliary tract damage were tested: in 39 cases, these were markers of biliary dyskinesia (predominantly stagnant - 89.7%), in 21 cases

- markers of chronic cholecystitis, including in one case against the background of stones in the gallbladder, almost all patients (97%) also tested inflammatory lesions of the upper gastrointestinal tract (gastritis, duodenitis, gastroduodenitis), while signs of inflammation of the large intestine according to ART data were present only in 7 patients of the main group. Thus, significant differences between groups on the part of gastrointestinal tract pathology related only to the frequency of detection of signs of inflammation in the large intestine, which were found in almost a quarter of patients with acne (p = 0.011, Fisher's exact test).

Very often, according to ART data in both groups, signs of urinary tract inflammation were also detected - in 83% of patients, while most often it was cystitis (65%), much less often - urethritis and pyelonephritis (17% each), while signs of inflammation in the organs reproductive system were detected in 60% of patients (adnexitis, cervicitis or vaginitis - in women, prostatitis - in men), and signs of inflammation of the upper respiratory tract were found in only 20% of all patients. There were no significant differences in the frequency of detection of inflammatory lesions of these organ systems, determined by the ART method, between the groups. Pathological changes in the endocrine system during ART in patients with acne occurred significantly more often (more than twice) compared with the control group: 63.3% compared with (versus, vs) 30%, respectively (p = 0.019,

There were no significant differences between the groups in the severity of exogenous burden caused by such physical factors as radioactive and electromagnetic stress, as well as in the level of tension and depletion of the immune and autonomic nervous system, in the frequency of detecting allergies, including those with a tendency to autoaggression, were not identified. Statistically significant differences between the groups concerned only the frequency of detection of geopathogenic load: it was detected in 5 patients with acne at the level of 2 points and only in one patient in the control group at the level of 3 points (17% vs 3%, respectively, p = 0.043, Pearson's test -2), however, we do not consider these differences to be significant, since in general, they were detected in only 10% of patients.

The general list of pathogens tested in both groups included: Trichocephalus trichiurus, Ascaris lumbricoides, Enterobius vermicularis, Toxoplasma gondii, Lamblia intestinalis, Jodamoeba butschli, Acanthamoeba, Candida parapsilosis, Candida albicans, Herypes type 1 Microsposterum, Herypes simplex, Microsposterum Gypes 2 Cytomegalovirus, Epstein-Barr virus, virus Coxacki B4, Human papillomavirus, Verruca plantaris,  $\alpha$ - and  $\beta$ -streptococcus, Pneumococcus, Escherichia coli, Staphylococcus aureus, Staphylococcus coagulans, pneumonia, aerlasma aerasonia, Pneumonia, Pneumonia, Pneuminella genosa, Proteleus mirabella Bacteroides fecalis, Enterococcus, Helicobacter pylori, Chlamydia trachomatis, Ureaplasma urealiticum, Gardnerella, Staphylococcus epidermalis, Propionebacterium acne, Dermatophagoides pteronyssinus and Demodex folliculorum.

The spectrum and frequency of detection of viral load, as well as the burden of protozoa and helminths in patients of both groups did not differ significantly. However, differences were found in the spectrum and severity of the bacterial load, as well as the load with pathogens such as Candida fungi and ticks. At the same time, in patients with acne, the load on the body was revealed three times more often, caused by Candida albicans (80% vs 27%, respectively, p = 0.0001, Fisher's exact test) and Candida parapsilosis (73% vs 23%, respectively, p = 0.0002, Fisher's exact test). In addition, the level of load of the organism with fungi in general was significantly higher (p = 0.0001, Pearson's criterion -2). Significantly more often in patients with acne, the body load of such bacteria as Staphylococcus epidermalis (70% vs 3%, p <0.0001, Fisher's exact test) and Propionebacterium acne (77% vs 0%, p <0.0001, exact criterion Fisher). In addition, in the main group, a higher incidence of Klebsiella pneumonia load was noted (57% vs 23%, p = 0.017, Fisher's exact test). Approximately half of patients with acne were found to be burdened with dust mites and in 30% - Demodex mites,

The load of patients with Candida albicans and fungi in general was associated with the presence of colitis (correlation coefficient - -0.77 and 0.62, p = 0.002 and p = 0.005, respectively) and damage to the endocrine system according to ART data (correlation coefficient - -0, 45 and 0.5, p = 0.005 and p = 0.007, respectively), and the burden of Klebsiella pneumonia in patients with acne was associated with colitis, damage to the reproductive and endocrine systems (correlation coefficient - -0.69 and 0.76, p = 0.003 and p < 0.001, respectively). The detection of dust mite burden in patients with acne was also associated with colitis (correlation coefficient - 0.57, p = 0.042), and Demodex mite burden - with damage to the biliary tract (correlation coefficient - 0.67, p = 0.006).

All patients underwent individually selected exogenous and endogenous bioresonance therapy with the inclusion of electronic analogs of nosodes, homeopathic complex preparations of the companies "OTI", "GUNA" (Roy Martina), "HEEL", "WALA" in accordance with the test results. Sustained positive dynamics (absence of new rashes and resolution of old ones) or recovery (estimated according to one-year observation data as the absence of new rashes) were observed in most cases after 3-4 sessions of therapy, usually after elimination of pathogens, normalization of gastrointestinal tract function and hormonal status.

### CONCLUSIONS

1. Almost a quarter of patients with acne, according to ART, showed signs of inflammation in the large intestine, significant differences between the groups on the part of other pathology of the gastrointestinal tract were not revealed. Pathological changes in the endocrine system, according to the results of ART, in patients with acne were more than twice as likely as in the control group.

2. Significant differences between acne patients and controls concerned the spectrum and severity of the bacterial load of the body, as well as the burden of the patient's body with pathogens such as Candida fungi and ticks. In patients with acne, according to ART data, the load of the organism with Candida albicans and Candida parapsilosis, as well as the level of load with fungi, was revealed three times more often in general was significantly higher. Significantly more often in patients with acne, according to the test results, the body burden caused by Staphylococcus epidermalis, Propionebacterium acne and Klebsiella pneumonia was detected. Approximately half of the patients with acne had a load on the body with dust mites and 30% with Demodex mites, while in the control group these pathogens were not tested.

3. The results obtained can serve as a prerequisite for further research on this issue, and also to help doctors practicing the ART method in identifying possible pathogens in patients with papulopustular acne.

# LITERATURE

1. Polonskaya N. A. Complex treatment of moderate and severe acne severe course of combined chemical peeling in combination with low doses of isotretinoin: Abstract of the thesis. dis. Cand. honey. sciences. - Moscow, 2005 --- 35 p.

2. Klimenkova N.V., Shimanskaya I.G. Modern approaches to the treatment of acne and post-acne // International reviews: clinical practice and health. - 2017. - No. 3. - pp. 59–68.

3. PL Krivonogova Bitkina O.A., Martusevich A.K. Pathogenetic substantiation of acne treatment methods: a review of modern concepts and our own data // Medical Almanac. - 2017. - No. 2. - T.47. - pp. 122–126.

4. Anisimova M.Yu. Acne (acne vulgaris) from the standpoint of evidence-based medicine // Reproductive Health Bulletin. - 2010. - No. 3–4. - pp. 14–23.

5. Gotovsky Yu.V. [and others] Electropuncture diagnostics and therapy with using the vegetative resonance test "IMEDIS-TEST". Guidelines. 3rd ed., Rev. and add. - M .: IMEDIS, 2000 .-- 151 p.

6. Avanesova E.G. [and others] Application of vegetative resonance test "IMEDIS-TEST" in clinical practice. 2nd ed. - M .: IMEDIS, 2007 .-- 164 p.

Author's address Ph.D. Dostanko N.Yu., associate professor of the Department of Internal Medicine natalido @ tut .by

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