

# Molecular genetic studies of opportunistic infections in patients with allergic dermatoses.

Mavlyanova Shakhnoza Zakirovna

Republic of Uzbekistan.

## Abstract:

The aim of the study was to study the variability of genomic complexes of staphylococci isolated from the skin in patients with allergic dermatoses.

Material and research methods. Molecular genetic studies were carried out in 63 cultures of st.aureus isolated from the skin of lesions in patients with allergic dermatoses. The material for DNA was a scraping of microbial cell cultures from a Petri dish. DNA was isolated from the samples using the RIBO-prep reagent kit (manufactured by InterLabService LLC, Moscow, Russia).

The results of the study. The results of molecular genetic studies of st.aureus genotypes showed that of the presented samples, methicillin-resistant staphylococcus - (mecA) was found in 55 patients, which amounted to 87.3% of cases. Whereas staphvlococci producing toxic shock syndrome toxin - (Tsst) were found in 30 patients (47.6%), and staphylococci producing Panton-Walentine leukocidin - Luk - 433 bp were found in 7, which amounted to 11.1%, respectively. Combined genotypes of methicillin-resistant staphylococcus (mecA) and toxic shock syndrome toxin (Tsst) were observed, which were detected in 29 patients, which accounted for 46.03% of cases and 7 patients noted a combination of MRSA + Tsst + Luk - 433 bp, which was 11, 1% of cases. An analysis of the clinical course of allergic dermatoses taking into account the isolated strains of S. Aureus showed that in the group of patients with blood pressure with MRSA, the clinical picture of the skin-pathological process was characteristic of erythematic-squamous character with lichenification. In patients with a TSST strain of S. Aureus, the skin-pathological process was widespread, infiltrative, caused by erythematous, vesicular rashes, and large-lamellar peeling in the form of scalded skin on the upper and lower extremities was noted. In patients with the genotype, the pore-forming toxin Panton-Valentine leukocidin (PVL), the skin-pathological process had a common, infiltrative-inflammatory nature, with a disease duration of more than 10 years with recurrent relapses and resistance to the standard therapy.

Conclusions: An analysis of clinical, microbiological, and molecular genetic studies showed that in patients with allergic dermatosis, 47.7% of cases show the development of persistent opportunistic infections caused by MRSA and toxic shock syndrome toxin (TSST) with S.Aureus strains.



### **Biography:**

Mavlyanova Shakhnoza Zakirovna received Doctor of Medical Sciences degree at the Higher Attestation Commission under the Cabinet of Ministers of the Republic of Uzbekistan. She is the Head of the Scientific Department of Dermatology of the Republican Specialized Scientific and Practical Medical Center of Dermatovenereology and Cosmetology, Ministry of Health of the Republic of Uzbekistan. She is a Member of the Association of Dermatovenereologists and Cosmetologists of the Republic of Uzbekistan and the European Academy of Dermatovenerologists. She has published over 300 articles in well-known journals, has 7 patents for inventions, 5 monographs and is also a Member of the Editorial Board of the Journal of Dermatovenereology and Cosmetology of Uzbekistan.

### Publication of speakers:

- Mavlyanova Shakhnoza et.al Artif Cells Nanomed Biotechnol. 2019 Dec;47 Recent progress in nanotechnology-based novel drug delivery systems in designing of cisplatin for cancer therapy
- J Biomed Mater Res A. 2019 Dec Targeted and stimuli-responsive mesoporous silica nanoparticles for drug delivery and theranostic use.
- AAPS PharmSciTech. 2020 Mar 9 Food Protein-Based Nanodelivery Systems for Hydrophobic and Poorly Soluble Compounds.
- Chembiochem. 2020 Jun 17. Multiple Chemical Features Impact Biological Performance Diversity of a Highly Active Natural Product-Inspired Library

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