ABSTRACT BOOK ABSTRACTS



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TROPICAL DERMATOLOGY

MTHFR GENE IN PATIENTS WITH CUTANEOUS LEISHMANIASIS IN UZBEKISTAN.

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Background: Leishmaniasis is a protozoal infection with a transmissive mechanism of spread, characterized by skin disturbance or internal organs by intracellular parasites - leishmanias. Diagnosis of leishmaniasis is carried out by identifying leishmanias in the patient's blood (with visceral form) or in scrapings of cutaneous elements (with cutaneous form). There are no approved vaccines against these pathogens and modern therapies are based on the use of a significantly toxic valent antimony penta, to which some patients develop resistance today. One of the reasons for development of resistance is a mutation of C677T in MTHFR gene, where cytosine is replaced by the thymine at position 677, which leads to a change in the synthesized amino acid from alanine to valine in the 223 position of the protein chain of the methylenetetrahydrofolate reductase enzyme responsible for the synthesis of 5-methyl tetrahydrofolates, which are necessary for the synthesis of methionine and the attachment of methyl groups to S-adenosylmethionine.

Objective: The purpose of this study is mutation identification of C677T in MTHFR gene in blood and scrapings from patients affected skin areas .

Materials and methods We explored 11 DNA blood samples and scrapings of affected skin areas with leishmaniasis. Polymorphism presence was detected by PCR-RFLP with visualization of the results by setting 3% agarose gel electrophoresis.

Results: Based on obtained data, this group of patients was genotyped for C677T polymorphism by the genotypes CC, CT and TT. Our data of genotyping the following frequency distribution of the above genotypes was revealed: 27.3%, 54.5% and 18.2%, respectively.

Conclusions: For comparative analysis, genotyping of the control group is currently carried out. Obtained data are preliminary and require further research on a larger sample.





