

A MULTIMODAL APPROACH TO MONITORING THE STATE OF MICROVASCULATURE IN PATIENTS WITH PSORIASIS IN THE COURSE OF TREATMENT

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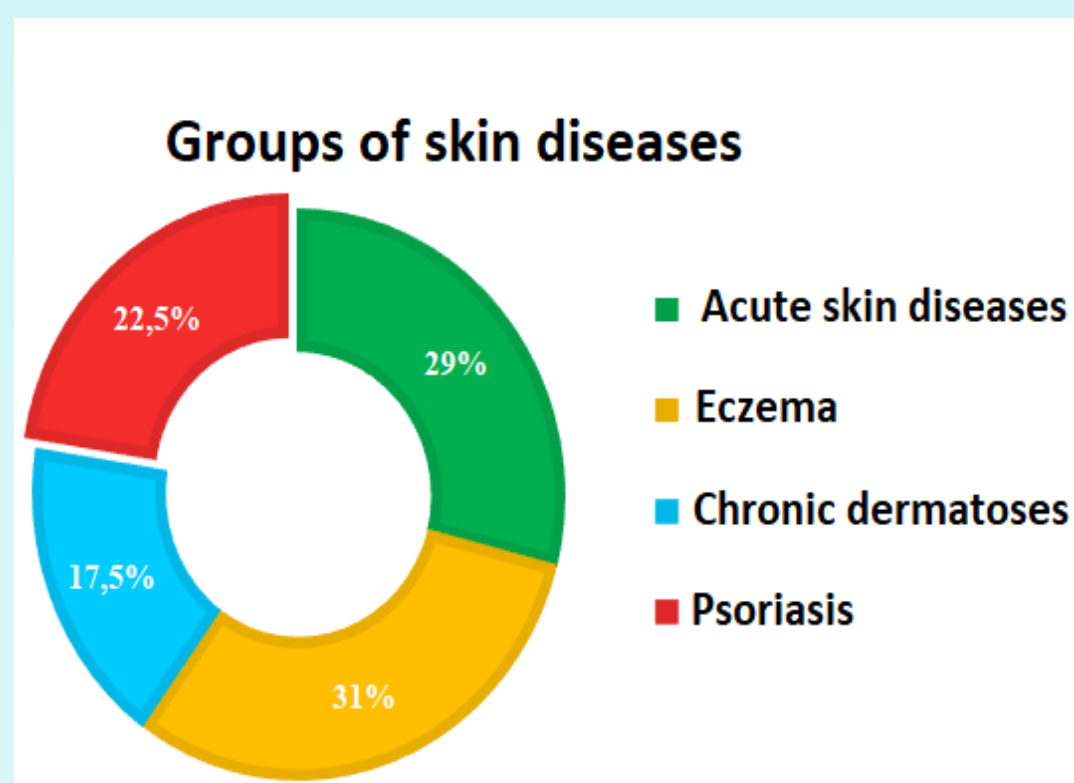
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Introduction

The problem of effective therapy and achieving stable remission of psoriasis is an acute problem in the world of dermatology.

The aim of research

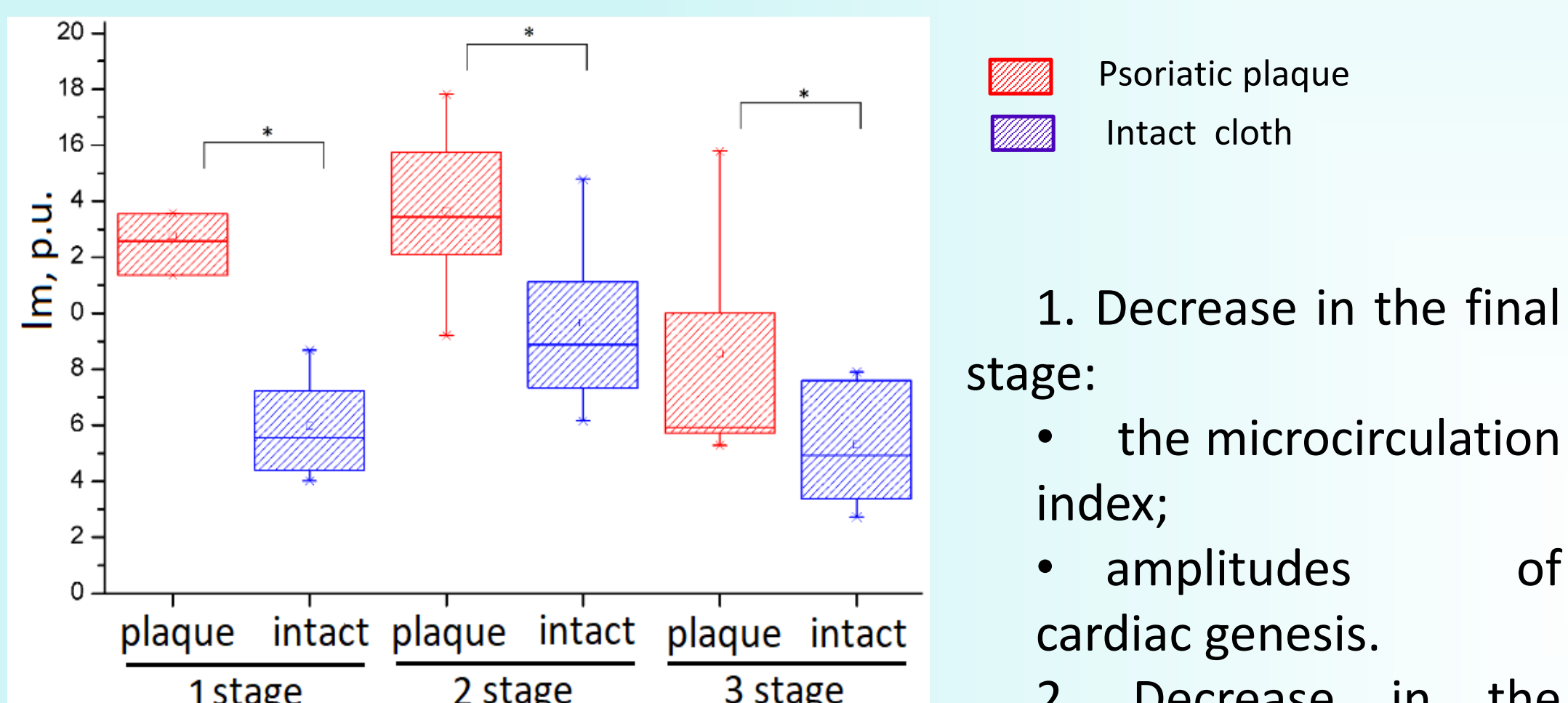
Evaluating the effectiveness of therapy in patients with psoriasis using a multi-modal approach.



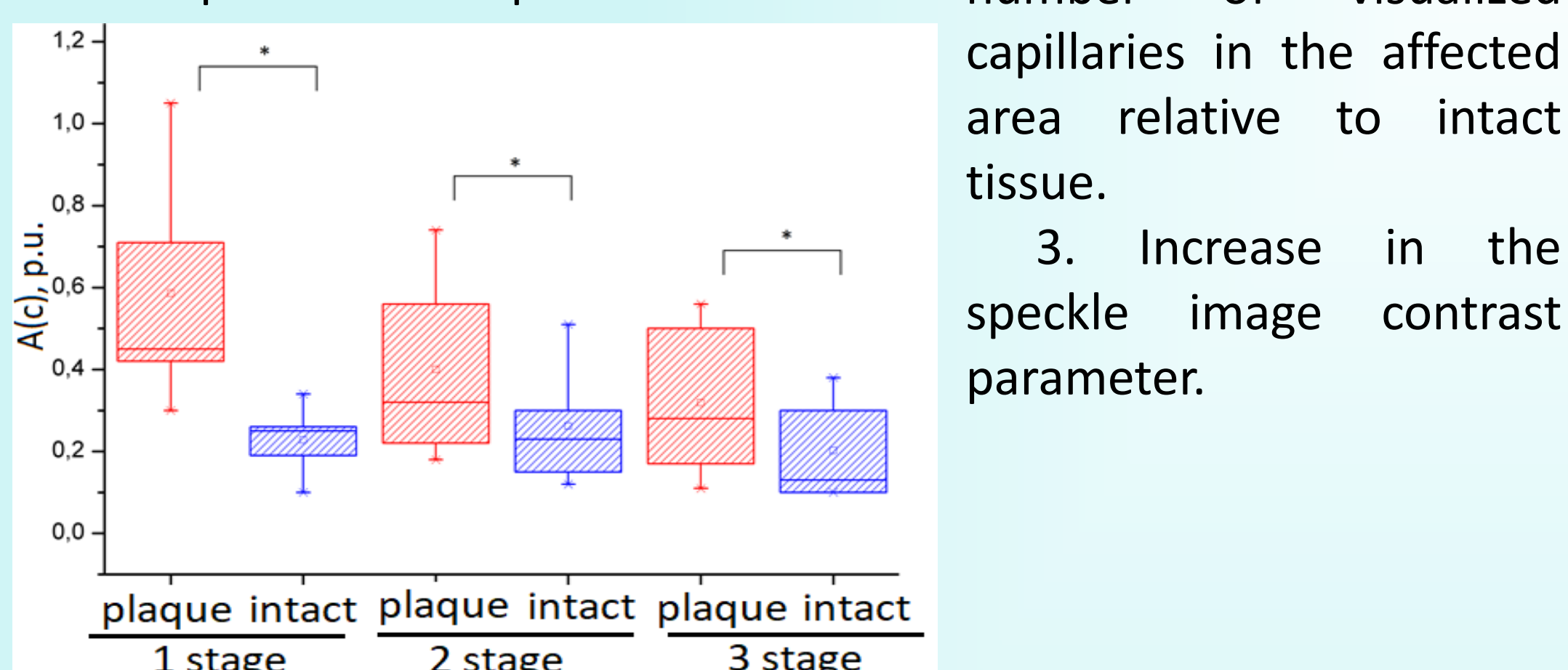
Results and Discussion

Method LDF

The microcirculation index









The amplitude of the pulse fluctuations



- Decrease in the final stage:
 - the microcirculation index;
 - amplitudes of cardiac genesis.
- Decrease in the number of visualized capillaries in the affected area relative to intact tissue.
- Increase in the speckle image contrast parameter.

Method VCS

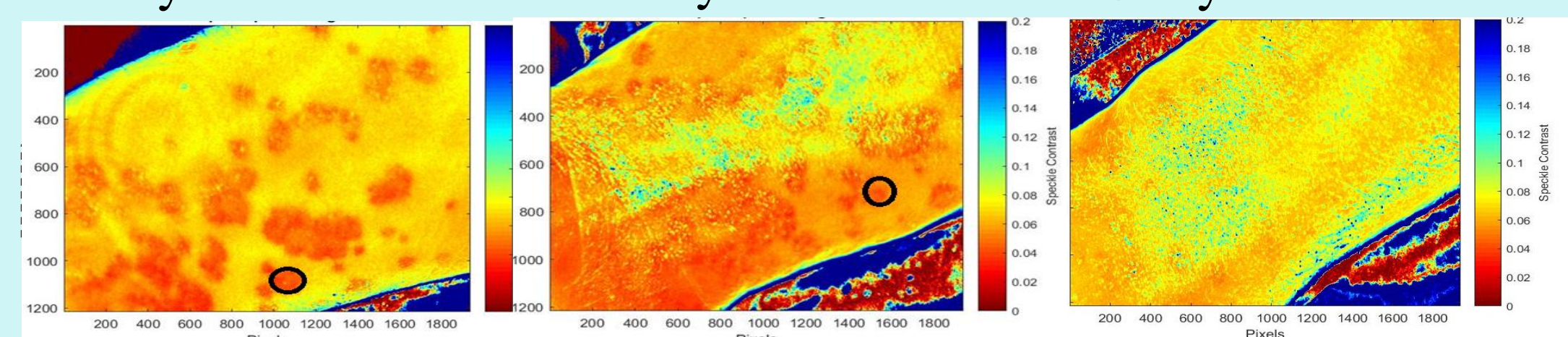
Study area	1 day of treatment 90 capillaries in 1 mm ² 66 capillaries in 1 mm ²	4 day of treatment 83 capillaries in 1 mm ² 63 capillaries in 1 mm ²	8 day of treatment 60 capillaries in 1 mm ² 55 capillaries in 1 mm ²
Psoriatic plaque			
Intact cloth			

Method LSCI

1 day of treatment

4 day of treatment

8 day of treatment



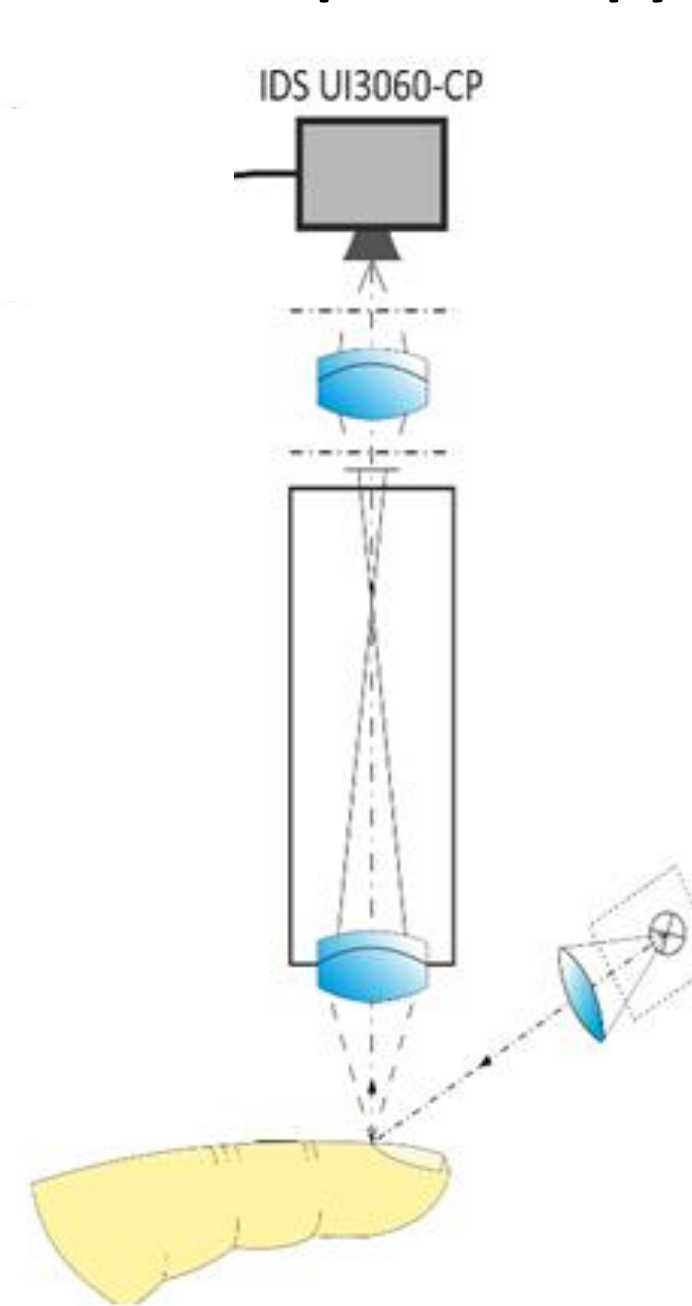
Material and methods *

No stage	The name of the stage	Duration of the stage
1	A study by LDF: - registration of microcirculation index in psoriatic plaque; - registration of PM in 1 cm from psoriatic plaque.	10 min 10 min
2	Study on the method LSCI: registration of the speckle contrast image.	30 s
3	Study on the method of VCS: definition of the visualized capillaries in plaque and intact tissue.	3-5 min

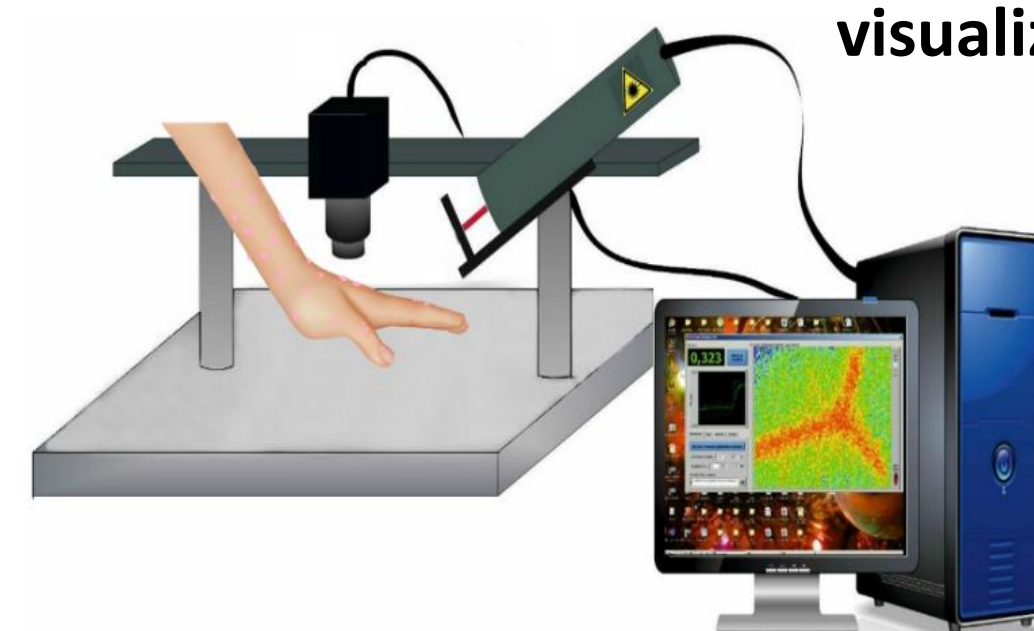
The study involved 6 patients aged 38 ± 16 years old diagnosed psoriasis vulgaris.

*Each patient underwent the study 3 times during the course of treatment.

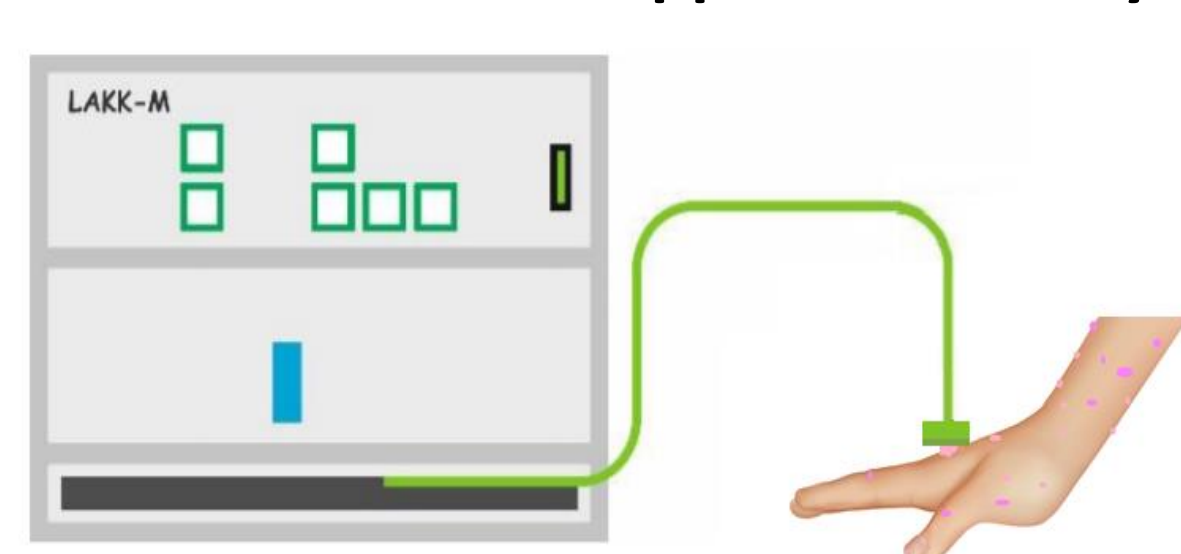
Video capillaroscopy



Laser speckle-contrast visualization



Laser Doppler flowmetry



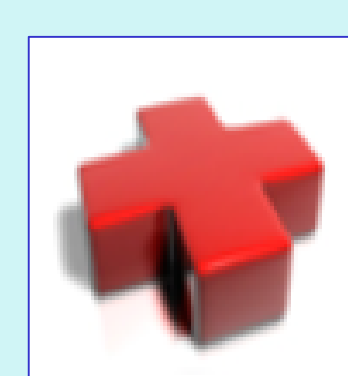
Conclusion

It can be concluded that the proposed approach:

- expands the possibilities of obtaining clinically relevant information about microvascular changes in patients with psoriasis;
- allows you to control the effectiveness of therapy;
- allows you to adjust the treatment.

Acknowledgments

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