Express distant evaluation of non-standardized dermoscopic images

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Statement of the Problem: Teledermoscopy is a promising and convenient technique of providing specialized diagnostic assistance for large countries.

Objectives & Methods: We have assessed the possibility of skin cancer diagnostics via network submission of dermoscopic images taken with various dermatoscopes and cameras. The dermoscopic images were sent from 10.05.2017 to 10.06.2017 by registered users of the Russian national dermatology server WWW.DERMATOLOGY.RU. Along with the same-day assessment of the dermoscopic image, the evaluating expert (provided by Society) also rated the quality of the received images in 3-grade scale between ‘bad’, ‘satisfactory’ and ‘good’.

Results: A total of 92 JPEG images were received. The participants used both dermoscopes without serial attachments to digital cameras (group A) and dermoscopes provided with connectors (group B). The mean image size in group A proved to be significantly smaller. Few images in group A were of good quality, compared to group B with 51.5 images of good quality. In group A, the diagnosis could be specified in 62.5% of cases. The expert described melanocytic nevi in 11 cases (73.3%), seborrheic keratosis in 2 cases, as well as 1 case of lentigo simplex and 1 of basal carcinoma. In group B, the diagnosis could be formulated in 57 cases (83.8%). In 52.6% of cases the expert described melanocytic nevi, the rest being seborrheic keratosis (14%), melanoma (8.7%), actinic keratosis (7%), and basal cell carcinoma (3.4%) as well as two cases of combined melanocytic nevus and seborrheic keratosis.

Conclusion: In 78.2% of cases the expert could evaluate and the dermoscopic image and make a diagnosis. A significant limitation to the remote dermoscopy assessment is the imaging quality. In most cases the expert would face common clinical entities. One of the possible solutions to imaging standardization may be the introduction of Russian digital dermoscopes and software.

Biography
Yury Y Sergeev is a PhD Student of the Department of Dermatology in Moscow Sechenov University. He is a Board Member of Russian Dermoscopy Society and Member of International Dermoscopy Society. He leads a specialized course on Clinical Dermoscopy in Central Research Dermatology Clinic in Moscow. He is an author of 9 research papers.

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