

SPRING DERMATOLOGY & SKIN CARE EXPO CONFERENCE

May 14-15, 2018 | Montreal, Canada

Variability of skin parameters during swimming training

Agnieszka Ciszek

University of Physical Education, Poland

Purpose: The skin of athletes practicing water sports is exposed to water containing disinfection by-products which can alter skin parameters. The aim of the study was to evaluate the effect of long-term of swimming pool water on the skin of swimmers.

Methods: The study included 32 swimmers aged 15 to 26 (mean age 21 ± 1). Baseline values of skin hydration, sebum level, and skin pH were compared with those measured and after 120-minute training in the swimming pool water.

Results: Significant differences were found in all examined between parameters before and after the training. In men, skin pH changed from 5.16 to 6.42 ($p=0.00$), sebum level from 17.77 to 17.15 ($p=0.01$), and TEWL from 8.69 to 14.51 ($p=0.00$). In women, skin pH changed from 5.64 to 6.61 ($p=0.00$), sebum level from 18.16 to 17.26 ($p=0.00$), and

TEWL from 10.08 and 14.33 ($p=0.00$). Comparison of skin parameters between sexes revealed significant differences in skin pH ($p=0.00$) and TEWL (0.01), and insignificant in sebum level ($p=0.63$) at baseline, while after the training differences became insignificant in all skin parameters.

Conclusion: Baseline parameters of the skin differed between sexes, but those differences disappeared after 120-minute training in the swimming pool water. Skin parameters changed to the detriment of an athlete (pH and TEWL increased; sebum level decreased); however, further research is required to explain whether those changes results from aggressive environment, physical effort, or interaction of both said factors. Proper body care may reduce fluctuations in the skin parameters and accelerate the return to homeostasis.

e: agnieszka.ciszek@awf.wroc.pl