

Salivary IgA and cortisol assessment, conductance measurement, three methods to evaluate the relaxing effect of cosmetic products

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The use of relaxing cosmetic products is more and more widespread on the self care market, since stress is considered as a major cause of discomfort in modern life. Cortisol, the stress hormone, helps the human body to regulate itself by acting on carbohydrate, proteins and fat metabolisms. IgA are immune molecules involved in the stress response of the human body. The less the human body is stressed, the more the salivary IgA rate increases. Salivary cortisol and IgA have the advantage of being easily assessed with non invasive methods. Finally, conductance is the measurement of the modification in the electrical resistance of the skin. By this means, the measurement of the conductance enable the assessment of somebody's stress.

Salivary cortisol and IgA were taken in the saliva of the volunteers with a standardized method. Saliva samples of salivary were then assessed with the ELISA competitive method. The readings of the tests were done through a spectrophotometer. The conductance was measured with an Ag/AgCl electrode which was placed on the skin of the non-dominant hand. The electrode was linked to a computer which analysed and presented the results of the measurement.

These three methods were accompanied with a subjective evaluation questionnaire which enabled the analysis of the volunteers' opinion about the product.

The aim of these preliminary studies was to present how salivary cortisol and IgA are assessed and how conductance measurements are carried out on human subjects in order to determine if a cosmetic product has a relaxing effect or not.

Some of the first results have shown that cortisol and conductance are respectively depending on anti-stress effect of tested products. As for the assessment of salivary IgA, the effects of the tested products seem to be less significant.