Stress-Monitoring on the Golf Course and Psychoregulatory Exercise

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Introduction
The golfer’s mental state affects the quality and consistency of the game considerably. In this connection TrophoTraining® is introduced. This self-explaining program contains seven short relaxation practise episodes that can be carried out at any place within a short period of time. This technique has not been tested in golf-sport yet. To measure the effects of this simple relaxation-training objectively evaluated questionnaires can be completed by skin resistance measurements via Electrotrophosyphography (ESG) after JANITZKI. These measurements of electrodromal activity record sole dermal sympathetic activity as there is no antagonization of the parasympathetic system in sudomotor neurons (see fig. 1).

Results
After 12 weeks of training both groups improved handicap and average score on the golfround by approximatly one shot.

Discussion
The golf-playing is very demanding concerning the golfer’s mental and physical condition. Especially the first shot on the tee (Choice of clubs, position, tee, start position, facing the goal...) worries the golfer. Particularly among amateur-golfers the fear of the first shot of a tournament is a central problem that has to be mastered. As expected this is mentally the most important process in the brain.

Hypothesis
TrophoTraining® as a form of psychoregulatory exercise can decrease sympathetic activity in golf and influence the score positively.

Methods
Volumetric: 33 healthy golf players (mean 45.8 +/- 9 years of age) with an average handicap of 22.2 were randomly chosen among approximately 300 golf players. With their consent they were randomly distributed among 2 groups. Design: Without prior taking of caffeine or any other stimulants a standardized warm-up on the driving-range and a subsequent round of golf on three holes had to be finished. By means of written instructions TrophoTraining® had to be performed and recorded three time a day at home or at work. After intervals of 4 and subsequently 8 weeks the first and second main test took place (see figure 2). During the tests TrophoTraining® was also performed. Players of the control group had to look through a brochure with photo-reports about golf.

in the longitudinal section average ESG-Levels overall show a contrary course on both groups. After 4 weeks the rise of skin resistance (=decrease of sympathetic activity) was clearly and after subsequent 8 weeks of practice the rise was moderately noticeable in the group who practiced TrophoTraining®.

Fig. 3 shows a typical ESG-course during three holes. A continuous decrease of skin resistance in the meaning of increased electrodermal activity becomes obvious. Electrodermal activation-levels could not be reached again after playing each hole. Furthermore characteristic ESG-courses during single shots with external definition of swing phases at the beginning of the pre-shot-routine and at the beginning of the swing could be demonstrated.

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Fig. 3: Experimental modulable. Golfer with ESG-Monitoring.

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