

QIDIVER PROJECT: ACUPUNCTURE AND TRADITIONAL CHINESE MEDICINE IN THE FREE-DIVER THERMAL AND EMOTIONAL FINE-TUNING.

ZANON V ^{1,2}, SCHIAVON M ³, CHECCACCI CARBONI S ^{2,4}, DORIA C ⁵, FANO' G ⁵, BOSCO G ^{1,2,5}, CAMPORESI EM ⁶

¹ ATIP, Diving and Hyperbaric Medicine Unit, Padua, Italy

² Acufit.org, Independent Integrative Medicine Practices, Italy

³ National Health System, ULSS-16 - Sports Medicine Unit, Padua, Italy

⁴ National Health System, ULSS-06 - Department of Anaesthesia and Intensive Care, Vicenza, Italy

⁵ Chieti Uni Medical School, Institute of Physiology, BAMS Dept., University "Gd'A", Chieti, Italy

⁶ Dept. of Surgery/Anesthesia USF, Tampa General Hospital, Tampa, Florida, USA



Authors' e-mail address:
vincenzo.zanon@gmail.com

Introduction: Amid the many reasons responsible for an early breaking-point during a breath-hold sport performance you can recognize both the different individual respiratory capabilities, and a better or worse thermal compliance, and the emotional factor arising directly due to the competition itself, and/or to those other personal traits of an eventual emotional unbalance as well.

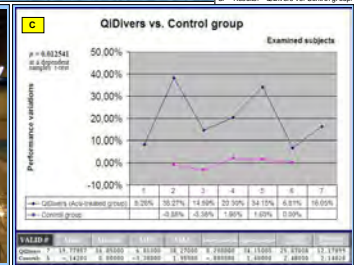
A previous study, dated 1983, showed the onset of an anticipated breaking-point in skin-divers pre-treated with acupuncture, hypothesizing that it was due to 'shaking shivers' that were directly determined by the use of that Traditional Chinese Medicine (TCM) technique.

Our aim is to test a differently designed TCM approach and evaluate the differences in breath-hold diving performance if any.

Materials and Methods: Our tests took place in Padua, Italy (Feb-Apr 2009); 12 subjects were analyzed in a simple blind study, applying an ABCD randomization so to allow us a better further statistic data analysis (8M-4F. QiDivers n=7;Control group n=5).

At first we've got pre-/post-test BP, HR and static apnea times in both groups; seven days later we took the same measurements.

QiDivers were pretreated both with different warming systems [cupping and gua-sha at Huatuo-jiaji para-vertebral acu-points, and capsicum-patches and acu-taping at the 'lower warmer' area of SanJiao], and with acupuncture [at ShenMen auricular point and at BL-13,CV-17,GB-41,GV-17,GV-19,KI-6,LU-6,LU-7,LU-9,PC-9,TH-3,TH-5,TH-7 of the traditional nomenclature].



Results:

There was a sharp significance between the two groups as per their static-apnea results: in QiDivers they increased of 19.78%+/-12.18% while the control group showed a definitively lower improvement trend 0.14%+/-2.15%; no any significance in BP and HR registered values.

Conclusions:

We measured the best results in the QiDiver group, especially with those that at the 7th day're still wearing $\geq 65\%$ of the previously positioned semipermanent micro-needles. This benefit seems to arise more from a better sympathetic/parasympathetic modulation than from a direct action on the ventilation capabilities.



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