

Supplementary material

A. ATAS

Time-Acupoints-Space Acupuncture is a new acupuncture method established by Professor ZHU Miansheng, based on decades of clinical practice using four traditional time-point acupuncture methods and adopting ideas of European medical culture. There are two posts setting up the frame of the ATAS. Firstly, ATAS expended the time-point from traditional one single acupoint to five kinds of time-points and proposed a new concept of “the memory of time-points” as well as its applications. Secondly, it established the method of space-points by analyzing the time-space structure of four time-point acupuncture methods. The combination of time-points and space-points provides a prompt and long-lasting effect, shows outstanding results in the treatment of common and difficult diseases.

In the treatment applying any method of ATAS, the time-point is the first point to use. Needle the left-side time-point for male and right-side point for female if the symptom or focus of the disease is not unilateral. Otherwise, needle the point of the unaffected side first following the contralateral meridian needling method, and then do the other side. The space-points are always used after the time-point, following the special point-sequence of the particular method and combining both time-point and space-points as a whole system.

The acupuncture method ATAS, considers that space and time are intertwined in the experience of a person. It recommends going from classical chrono-acupuncture to "Time-points-Space" acupuncture, by pointing out that to any point of time must necessarily correspond points of space since space and time are linked. Professor Zhu studied the different representations of space in Chinese culture and medicine. One of these representations is a square made up of 9 squares. With 3 of these squares one can represent the main functional areas of a man. This is one of the reasons why in the Linggui Bafa method (the one used in this clinical trial), in addition to the point of time will be selected 3 times 9 points of space. In all, 2 points of time (one main point and its deputy point) and 27 points of space distributed on the back, head and arms, stomach and legs, or 29 acupuncture points per session.

ATAS is semi-standardized. Acupuncture consists of stimulating acupuncture points to obtain a regulation of the functioning of the organs and a balanced

production of blood and body fluids. In ATAS, the combination of the points chosen is also based on knowledge of the patient's biological rhythms and seasonal influencing rhythms. The pathology is expressed in the form of symptoms and syndromes recorded in traditional Chinese medicine. The consultation begins with an examination and a clinical examination that includes the study of the pulse and the tongue of the patient. Then comes a time of diagnosis of the dysfunction of the patient and a personalized therapeutic proposal. The patient lies on the examination bed and the practitioner put about thirty needles. All needled points used for ATAS will be clearly registered in the eCRF. The patient rests with the needles for about thirty minutes at the end of which the practitioner will remove the needles. At the end of the session, the practitioner controls and registers the manifestation of both the pulse and the tongue according to TCM diagnostic method. After the session, the patient can perform normal activity.

B. Sham acupuncture

The optimal control group for studies of acupuncture is controversial. Sham acupuncture methods include acupuncture for an unrelated condition, needle insertion at nonacupoint locations, noninsertive simulated acupuncture, or use of retractable needles.

Through literature screening, the acupoints for the treatment of breast cancer CRF recorded in the literature were excluded, and 16 non acupoint stimulation points were selected. They are not on the traditional acupuncture points, but on the periphery of some points related to the eight methods of Linggui acupuncture in time and space.

C: Ethics:

The study was approved by the ethics committee of Yunnan cancer hospital, approved number: YJZ 201705.

There were 12 ethics committee members of Yunnan cancer hospital participated the discussion of the study "ATAS Acupuncture for the prevention of chemotherapy-induced fatigue in patients with early stage breast cancer" in 31st, Oct. 2017. The

major of these ethics committee members include: oncology internal medicine, oncology surgery, radiology, radiation oncology, pathology, nursing, pharmacology, ecsomatics, law and administration. There was only 1 committee avoid, because he is one of the study members. The other 11 ethics committee members thought the study don't violate to the principle of medical ethics, and the principal has the ability to carry out the study. Before the study, the members of the project need to inform the patient deeply including the adverse effect of acupuncture and the acupuncture is free. After the patients agreed all the content of the informed consent, the study can be started.

YL Xu is the secretary of the ethics committee of Yunnan cancer hospital, contact detail: ynzlyyll@163.com, +86087168185656

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Principal: Wen-Hui Li

Organization: Yunnan cancer Hospital

Participating organization:

1. Yunnan Zhu specialist workstation, School of acupuncture and massage,
Yunnan college of traditional Chinese medicine, Kunming, China
2. Yunnan Zhu specialist workstation, National famous traditional Chinese
medicine expert inheritance studio of Mian-Sheng ZHU, Kunming, China
3. Institute Gustave Roussy, Paris, France
4. MD Anderson Cancer Hospital Madrid, Spain

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