



Letter to the Editor

Letter to the Editor on “Profiling molecular changes induced by hydrogen treatment of lung allografts prior to procurement”

In the last 5 years, hydrogen therapy has been one of the most popular new technologies since Ohsawa discovered its antioxidant and anti-inflammatory properties [1]. It has been proved effective in various diseases via animal models and clinical researches. Recently, an important research about hydrogen therapy was published in *BBRC*, Nakao et al. [2*] proved that hydrogen therapy significantly increases expression of surfactant-related molecules, ATP synthases and stress-response molecules in lung grafts, and these have the protective effects against I/R injury during transplantation. However, the detailed molecule mechanism is still a challenge for the scientists from the view of western medicine [3]. In fact, when we change an angle, we can find the hydrogen therapy happens to hold the same view with the traditional Chinese medicine.

Traditional Chinese medicine (TCM) has been developed for thousands of years and attention is being paid increasingly by the western world. Although the theories of the traditional Chinese medicine and modern/western medicine are quite different, the combination of the two doctrines is the tendency of the future medicine. Thereinto, the yin–yang theory is the most basic and important in the TCM. It has been proposed that the yin–yang relationship, mainly including the concepts of balance, harmony and homeostatic, is actually the antioxidant–oxidant balance concept described in modern medicine [4,5]. So we can speculate that the hydrogen molecule can re-balance the yin–yang and re-keep the natural harmony yin–yang in the body.

Although the hydrogen therapy is a perfect method to various diseases, we admit that it is not a specific treatment method for a special disease; it is not the etiological treatment. It is the Jack of all trades for its special property. In the theory of the TCM, there are four kinds of drugs in the treatment. They are “principal component, adjuvant ingredient, complement, guide” [6]. They play different roles in the treatment of a disease. So, for its characteristic, we can classify the hydrogen therapy as the adjuvant ingredient. It can be the effective assistant in the treatment.

The prospect of the hydrogen therapy is very encouraging for its antioxidant and anti-inflammatory properties while there is

almost no side effect [3]. There are two kinds of valid delivery of hydrogen, including the inhalation and hydrogen-rich water, of which the hydrogen-rich water is more convenient and acceptable. We imagine the future of the hydrogen therapy—hydrogen-rich saline replacing the normal saline, hydrogen-rich drinking water replacing the daily drinking water and hydrogen-rich beverage replacing the Coca-Cola. Because of the coincidence with the traditional Chinese medicine theory, the widespread use of the hydrogen therapy may have the breakthrough in China.

References

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