

Zika Therapy by Traditional Chinese Medicine, a New Proposal

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Editorial

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Abstract

This year is an important time for Zika infection and therapeutic studies. Zika therapy is an emerging medical challenge since the noticing of Zika as a transmission vehicle. Currently, Zika therapeutic options are very limited. According to general protocols of antiviral drug development, it needs long procedures of drug evaluations and a great sum of money. Due to this limitation, a new way of Zika treatments by traditional Chinese medicine (TCM) is suggested. TCM can be utilized at any times and less costs for large human populations. We hope this strategy will help Zika epidemic control worldwide.

Keywords: Natural plant; Phytochemistry; Traditional Chinese medicine; Medicinal chemistry; Drug development; Anticancer drug; Zika virus; Antiviral drugs

Backgrounds

This year is an important year of widely Zika infectivity and gains medical popularity. Zika therapy is an emerging challenge for medical capability since the beginning of this year. It is even raised a proposal for Rio Olympic game relocation by a great number of renowned medical scientists. Tension is growing.

Currently, Zika therapeutic options are very limited. According to general protocols of antiviral drug development, it needs long procedures of drug evaluations and a great deal of research funds. Its pathogenesis processes are just reported [1]. Due to this limitation, we propose a new way of Zika treatments by traditional Chinese medicine (TCM). TCM can be utilized at any times and not much costs for large human populations. We hope this strategy will help Zika epidemic control worldwide. This editorial systematically analyzes this matter from several pathways.

Historic Review

TCM as a major therapeutic option in China

China has a long history and reputations of treating a wide variety of diseases by TCM. For example, cold symptoms of large human population in ancient times (similar to viral infections like seasonal flu, avian flu and Ebola infections) by TCM over two thousand years [2]. It has been repeat utilized for viral infective control since the era of Master Zhang (AD150-219) in China [2, 3, 4]. According to TCM theory, virus-induced fever can be caused by patient's deficiency in "Yang" sun-inner energy. TCM doctors try to combat these virus-induced ranges of symptoms (like fever, cough etc) by strengthening, modulating and offsetting these damaged activities in human organs with formulated herbal medicines [3, 4]. The formulated herbal medicines are large chemical component admixtures and effective ways of drug combinations for infected patients.

Routines of TCM

Several formulated soups for cold symptoms (like viral acute infective stages) and high fever (commonly occurrences for almost every deadly virus infections—similarity to avian flu symptoms) were applied by Master Zhang, including “Gui-Zhi Soup”, “Ma-Huang Soup”, “Da-Qing-Long Soup” and “Ge-Geng Soup” [2]. These cheap medical herbs can be available all the times without any specific preparations. Historically, this theory has been successively controlling a great numbers of virus-infected endemics throughout the long history of China for more than 2,000 years. We suggest that this type of treatment should also be further studied and used in Ebola, HIV, avian flu, Zika infective control and fully clearance from human bodies [3-5]. It is an economical useful ways for American countries besides US and Canada.

TCM for viral infective treatments in clinics

Theoretically, viral treatment, the most utility of TCM prescription for wind-heat symptoms was Yin-Qiao-San for fever. And the TCM prescription of wind-cold symptoms was Jing-Fang-Bai-Du-San. The utilities of Ma-Xing-Shi-Gan-Tang can remove toxic heat obstruction in the lungs of infected patients with 100% effectiveness [5-12]. These patterns of herbal formulae can also be used as the preventive measures for large-sized population attacked by a number of deadly virus infectivities in endangered areas similar as avian flu or Ebola epidemics.

Results

TCM developments in new era

Facing this situation, a lot of future scientific or technologic undertakings must be focused on the fields of medical capabilities and drug developments against Zika-epidemics and others. Finally, TCM therapies are usually characterized as low toxicity and drug cocktail (mixture ingredients) suitable for possible curable treatment options in any new cycles of deadly virus outbreak among large populations of infections and mortalities.

The keys of different disease therapies

The key role of different disease therapies is the balance between therapeutic responses and toxicities/risks, displaying as therapeutic index gain. Many refractory and currently incurable diseases, such as HIV-infections in human bodies [3] might come from insufficient of natural chemotherapeutic drugs. In previous studies, it has been found that natural compounds kill pathogens in lower concentrations

compared with those by synthetic chemicals [6]. The only drawback of natural-borne chemotherapeutic agents was the expensive drug purification processes that made these chemical drugs especially high costs. However, with the high speed of modern technology developments, natural-borne chemical agents can be available to wider ranges of patients and costs much less now [6].

Discussion

Zika virus epidemic is an emerging medical crisis that is receiving growing attentions worldwide. Good Zika managements are necessary and must be established. Like aforementioned theory and paradigms, Zika therapeutic studies by TCM or natural chemotherapeutic agents might be a good pathway owing to shortage of proper therapeutic options. TCM or natural drug developments might be a key issue of medical capabilities of future scientific investigations and medical advancements.

Conclusion

TCM is an important arsenal for a great number of inherited diseases and outsider invasion/infections treatments. In future, we must focus on the discovery of natural chemotherapeutic agents and developments on this basis. In order to do this, integration of western and eastern medical practices is the top priority. We shall never miss this opportunity for helping larger populations.

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