Research Article

BIOMEDICAL Journal of Scientific & Technical Research

ISSN: 2574 -1241

DOI: 10.26717/BJSTR.2021.37.005935

Cells Affected by Rotating Poynting Vector Field as a New Emission Source

Jie Teng[1], Yu Chen[1], Qian Feng[1], Lin Wang[1], Mengmei Li[1], Zhongzhen Cai[1], Yuming Chen[1], Peng Gao[1], Glen Rein[2] and Xuemei Bai[1]*

[1]*ENNOVA Institute of Life Science and Technology, ENN Group, China*

[2]*Quantum Biology Research Lab, Ridgway, USA*

***Corresponding author:** Xuemei Bai, ENNOVA Institute of Life Science and Technology, ENN Group, langfang 065001, China

ARTICLE INFO

Received: June 24, 2021

Published: July 06, 2021

Citation: Jie Teng, Yu Chen, Qian Feng, Lin Wang, Xuemei Bai, et al., Cells Affected by Rotating Poynting Vector Field as a New Emission Source. Biomed J Sci & Tech Res 37(1)-2021. BJSTR. MS.ID.005935.

Keywords: Rotating pointing vector field; M-1 cells; Information transfer

ABSTACT

Various biochemical parameters of organisms will change with the rotating pointing vector field (RPV-field) treatment, and some biological information can be transmitted between organisms. M-1 cells were used to investigate whether the cells affected by the RPV-field can become a kind of emission source and continue to affect other cells. Our experimental results show that the cells exposed to the RPV-field become a new source of emission, and the changes of various parameters of the cells are transmitted to other cells, including ATP, ROS, GSH and gene expression. Significant and convergent changes were found in the parameters of mitochondrial metabolism, antioxidant capacity and longevity anti-aging gene expression.

Abbreviations: RPV-field: Rotating pointing vector field; ROS: Reactive oxygen species; MMP: Mitochondrial membrane potentials; GSH: Glutathione; PBS: Phosphate-buffered saline

Introduction

As a special field formed by the rotation angular momentum of object, the Rotating Poynting Vector field (RPV-field) was first proposed by French scholar E Cartan [1]. With the development of modern quantum observation technology, RPV-field is now defined as the field formed by quantum spin angular momentum and can act on macro-objects. The Poynting vector S is the vector of energy flux density of the electromagnetic field, which can be defined by the following formula: S = [E × H], where the E and H are the vectors of electric field and magnetic field. Normally, the Poynting vector S usually propagates along with a straight line, like the electromagnetic wave. But in this generator, after specially designed electric field and magnetic field, the Poynting vector S propagates in a spiral format, along with the enameled wire around the cone framework. And the directions of the rotating S can be adjusted to either left-handed or right-handed.

Scientist from the former Soviet Union carried out a RPV-field experiment using twin rabbits [2], which confirmed long-distance information transmission capacity by the RPV-field. The research conducted in Russia and Germany successfully transmitted signals between two places that are 10000 km away from each other using photos as positioning components [3]. Other research demonstrated the remote promotion of biological growth through biological photos [4]. Some studies have also confirmed the penetration of the RPV-field, indicating it cannot be shielded [5]. Many studies have confirmed that the RPV-field can transmit information and act on the organisms remotely (regardless of shielding). However, the physiological and biochemical characteristics of the organisms affected by the RPV-field need to be further studied. Whether the organisms can retain the changes of these characteristics and then continue to affect other organisms have not been explored. If a healthy organism treated by the RPV-field can be used as a source of emission, it can be used to treat damaged organisms by using the penetrating characteristics of the RPV-field, thus providing a new non-invasive treatment method.

In this study, M-1 cells were treated with the RPV-field, and then used as a source of emission to another group of cells. Through

the changes of various physiological and biochemical parameters of cells, the possibility of cells as a source of the RPV-field emission was explored. Previous studies have found that RPV-field can significantly affect the mitochondria and antioxidant properties of cells. In this study, these cells were placed together with other cells to explore whether these changes in cell characteristics can be transmitted, whether cells can be used as emission sources to transmit information to other cells in the form of RPV-field and produce similar changes.

Materials and Methods

Cell Culture

The M-1 mouse kidney collecting duct cell line was obtained from National Infrastructure of Cell Line Resource (Beijing, China, http://www.cellresource.cn) as visceral cells which grow rapidly. The culture conditions and inoculation process of these cells can refer to our previous articles [6].

Rotating Poynting Vector Generator

The basic principle of Rotating Poynting Vector (RPV) generator originates from AE Akimov [7]. We built our own RPV generator according to Akimov's specifications. The specific structural parameters of the generator can also refer to our previous work [6]. It is not necessary to talk about the electric current in this work, because in this generator, only the voltage signal is used to generate the electric field between the copper cone and the copper coil. Then the horizontal component of the electric field will be orthonormal with the vertical magnetic field. Then the spiral RPV field will be formed around the plastic cone.

Experimental Design of RPV-Field Treatment Effect Transmission

Three groups of M-1 cells culture were used, including a treatment group (treated with RPV-field and named as 'TF'), and a transmission group (treated with transmitted property of 'TF' and named as 'TF-t') and a control group, named CK (without TF or TF-t treatments). To treat the M-1 cells with the RPV-field, M-1 cells were seeded at a density of 5~6×105 cells/plate into a 10cm plate, and after a 3h attachment period, plates of the 'TF' group were placed in the RPV-field for 24h treatment. For the 'CK' and 'TF-t' groups, cells were left for 24h under normal growth conditions. Secondly, to conduct the transmission experiment, the plate of 'TF-t' group was placed under the plate of 'TF' group, with the two plates touching each other. The plates for the 'CK' group were placed under normal growth conditions in another room about 50 meters away. All the plates were incubated for an additional 48h. Finally, to assess the effect transmission, cells were collected and subjected to different assays at 24h and 48h respectively during incubation. All experiments were performed in triplicate.

Biochemical Analysis

In the experiment, the detection methods of various biochemical indexes of M-1 cells, such as ATP, ROS, MMP, protein, cell viability, SOD and GSH, were unified in our research group [6].

Gene Expression Analysis

Because of using the same research vector (M-1 cells), the parameters of gene expression analysis such as transcriptome sequencing and mitochondrial DNA quantification can refer to the previous work [6].

Statistical Analysis

Values of different measurements were normalized to a respective mean control value from untreated samples and expressed as percent control. All data are expressed as mean ± standard deviation (SD). They were analysed by analysis of variance (ANOVA) and Least Significant Difference (LSD) using GraphPad In Stat software, where $P < 0.05$ was considered statistically significant.

Results

Effect of RPV-Field on the Mitochondrial

On the mitochondrial level, the parameters of TF group changed significantly after RPV-field stimulation, and the parameters of TF-t group also showed a consistent change as demonstrated in Figure 1. ATP levels for both TF group and TF-t group were significantly repressed at both 24h and 48h (Figure 1a). The ROS level of TF and TF-t group was not changed significantly at 24 h, but it was significantly increased at 48 h (Figure 1b). There was no significant change in MMP level in TF-t group both in 24 h and 48 h (Figure 1c). The copy of mitochondrial DNA was significantly increased by the RPV-field treatment for both TF and TF-t group at 24 h (Figure 1d).

Effect of RPV-Field on the Antioxidant Capacity

The antioxidant capacity was repressed after RPV-field treatment because of the decrease of GSH production both in RF and RF-t group (Figure 2). At 48h, the GSH level increased slightly, and the antioxidant capacity of the cells was partially restored.

Effect of RPV-Field on Longevity and Aging Related Genes

The changes of longevity and aging related genes are shown in Figure 3. The heat shock response (HSR) gene HSF1 increased significantly in RF group, but there was no change in the RF-t group (Figure 3a). The expression level of HSF1 decreased with the extension of culture time. Cell cycle inhibitor p16 was not changed significantly (Figure 3b). The expression of p53 gene was significantly increased in the early stage of stimulation in RF group, but there was no change in the RF-t group (Figure 3c). Gene SIRT1 also showed a significant inhibition in the early stage of RPV-field treatment in RF and RF-t group. But the inhibitory effect of SIRT1 was weakened with the extension of culture (Figure 3d).

DOI: 10.26717/BJSTR.2021.37.005935

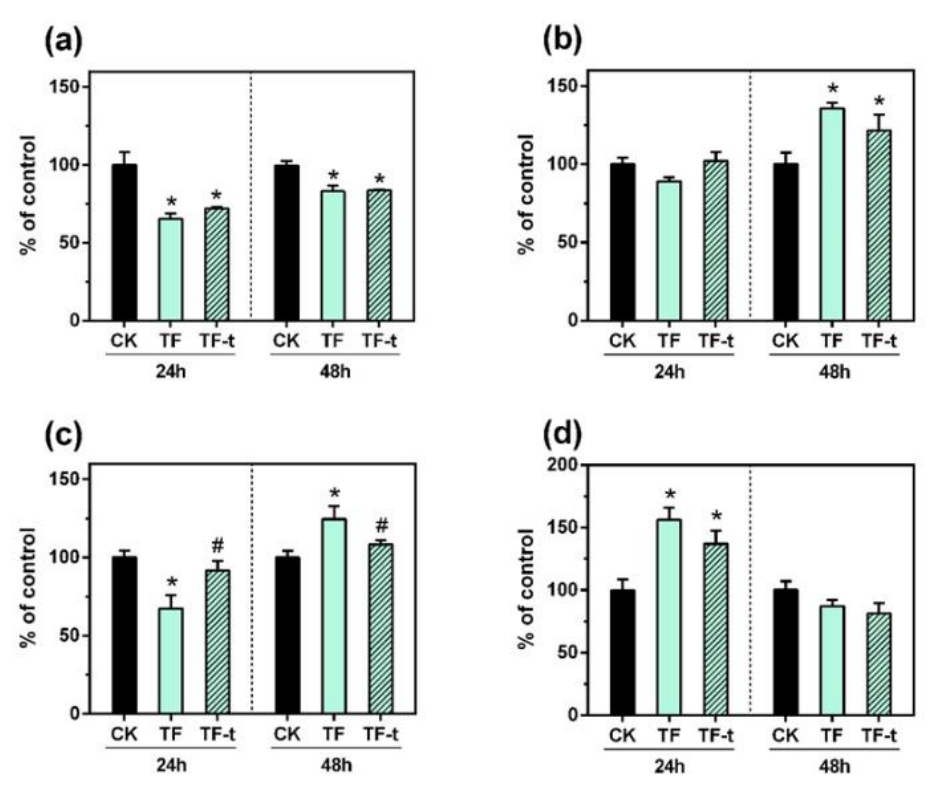

Figure 1: Effect of RPV-field treatment and the effect transfer on mitochondrial related items in M-1 cells. (a) ATP; (b) ROS; (c) MMP; (d) mitochondrial copies.

*Significantly different from the control group; #significantly different from the compare of TF and TF-t group.

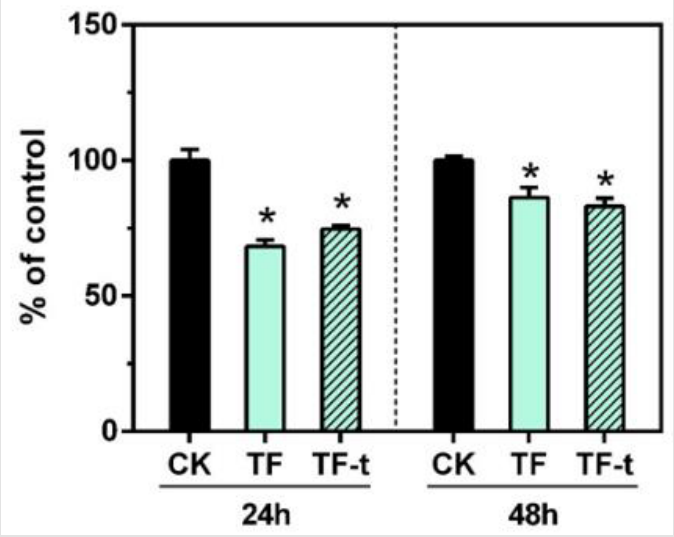

Figure 2: Effect of RPV-field treatment and the effect transfer on antioxidant related GSH in M-1 cells.

*Significantly different from the control group; #significantly different between the TF and TF-t group.

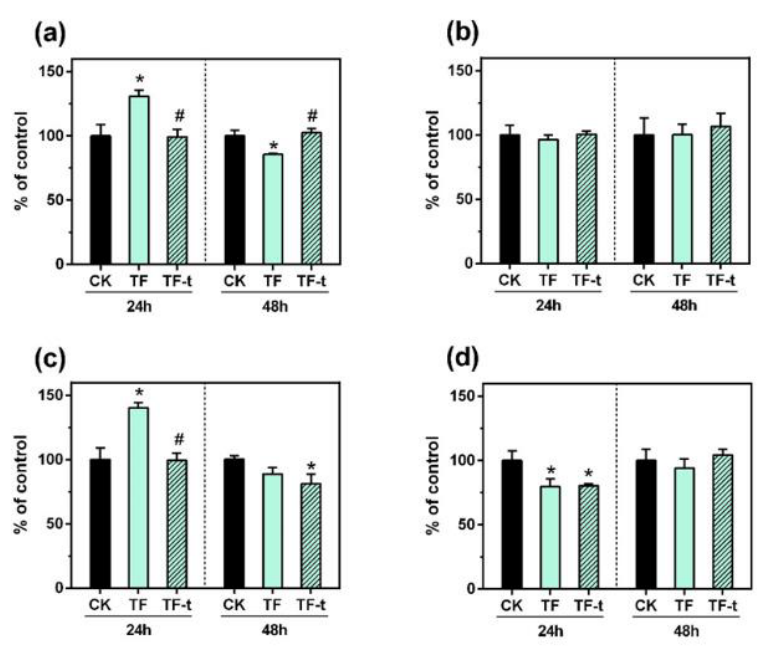

Figure 3: Effect of RPV-field treatment and the effect transfer on related gene expression in M-1 cells. (a) HSF1; (b) P16; (c) P53; (d) SIRT1.

*Significantly different from the control group; #significantly different between the TF and TF-t group.

Discussion

By comparing the RF and CK groups, all the parameters showed significant difference, that the energy production and MMP and GSH level of M-1 cells were decreased significantly with the treatment of RPV-field, and weaker antioxidant capacity than the CK group. However, these effects are reversed after 24h of direct treatment of RPV-field (the first measurement in this study was 48h after direct action). It is possible that there is a process of attenuation and compensation for the effect of RPV-field on cells. As a key gene for transcriptional activation of heat shock response, HSF1was significantly increased due to its promotion of cell resistance to stress [8]. The function of regulating cell proliferation, apoptosis, immunity, aging and tumor and other biological processes [9] indicates that the metabolism of cells is under external pressure, and then produces stress response. The copy of mitochondria numbers also increases significantly at the same time, which maybe was the stress response to pressure. The obvious inhibition of SIRT1 maybe was the reason for the significant increase of ROS at the later stage of culture (48h) [10]. SIRT1 is involved in the regulation of a variety of biological processes as a NAD + dependent deacetylase, including cell proliferation, aging, apoptosis, oxidative stress, etc. [11,12], indicating that the oxidative stress ability and life span regulation of cells under the action of RPV-field are inhibited. The significant increase of tumor suppressor gene p53 in the RF group indicates that the cell proliferation is inhibited. The protein transcribed by p53 can block cell cycle which could make it stay in G1 phase and induce cell apoptosis [13].

In terms of mitochondria, antioxidant capacity and longevity and aging related genes, the changes of RF group and RF-t group tend to be similar. The index parameters of cell inhibition (or enhancement) in transmission group will appear the same inhibition (or enhancement), and the intensity of change will be slightly weaker, which indicates that the RF-t group has indeed been subjected to the effect like the RPV-field. The RF group has become a kind of "emission source", which provides a possibility of cell (organism) as the emission source of RPV-field, which needs further exploration and research. This study also found that after 24 hours of RPV-field treatment, the changes of various parameters in the cells of the RF group were more significant with the obviously convergence of the RF-t group. However, the influence level on the cells in the RPV-field group was weakened with the extension of the culture time (48 hours), and there was weaker in the RF-t group or even no longer change. All these phenomena indicating that the intensity of cells will decrease as time goes on as a source of RPV-field emission. It is also possible that the self-healing ability of cells is playing a role.

Conclusion and Perspectives

In this study, we found that the energy production and antioxidant capacity of M-1 cells were decreased after being treated with RPV-field in RF group and the consistent parameter changes in the RF-t group was discovered, which indicates that the cells in the RPV-field become a kind of "biological emission source". Because of the penetration characteristics of the RPV-field, the cells of the

RF group can directly transmit the information to the RF-t group, thus affecting the physiological and biochemical parameters of the cells and appearing obvious pressure inhibition state. This study confirmed that cells can become the source of RPV-field emission and influence other cells according to their own characteristics. Combined with the penetrating characteristics of the RPV-field, this research provides a possibility for the healing of the organism, which is taking the healthy organism as the emission source of the RPV-field to affect the injured organism, without suffering from the side effects of the traditional medicine treatment and the trauma pain of the surgical treatment, or even without direct contact, the healing of the organism can be realized through the information transmission of the RPV-field. This is a huge medical innovation and subversive treatment method, which provides a new pathway for future non-invasive treatment.

Acknowledgments

This work was supported by the ENN Research Fund.

References

1. Cartan E (1922) Compates Rendus. Akad Sci, Paris 174.
2. Akimov AE, Tarasenko VY, Tolmachiev U (2001) New physical basis of torsion coupling information transmission system. Telecom 5.
3. Zamsha, VT, Shkatov The first practical torsion coupling experiment was conducted at a distance of about 10000 meters. Kilometer.
4. Maslobrod S, Maslobrod E, Kernbach S (2013) Long range interaction within the system 'semiconductor generatormatrix-seeds. Proceedings of conference 'Bio-Energy-Information Interactions. Ecology and Safety', Moscow.
5. (2011) Subtle Energies & Energy Medicine. Journal Archives 19(3): 43
6. Lin W, Zhongzhen C, Yu CH, Qian F, M Li, et al. (2020) The influence of torsion field on mouse kidney cells in-vitro. Biomed J Sci & Tech Res 32(3).
7. Akimov AE, Petrovsky BI, Tarasenko VJ (1995) Structure and construction of torsion generators. Mntc Vent.
8. Raychaudhuri S, C Loew, R Korner, MH Hartl, Frank B, et al. (2014) Interplay of acetyltransferase EP300 and the proteasome system in regulating heat shock transcription factor 1. Cell 156(5): 975-985.
9. Brown L, Peter C, Vellai T (2018) Roles of heat shock factor 1 beyond the heat shock response. Cellular and Molecular Life Sciences 75(16): 2897-2916.
10. Sharples AP, Hughes DC, Deane CS, A Saini, Colin S, et al. (2015) Longevity and skeletal muscle mass: the role of IGF signalling, the sirtuins, dietary restriction and protein intake. Aging Cell 14(4): 511-523.
11. Cho EH, Dai Y (2016) SIRT1 controls cell proliferation by regulating contact inhibition. Biochemical and Biophysical Research Communications 478(2): 868-872.
12. Weijin Z, Qiaobing H, Zhenhua Z, J Wu, Y Zhang, et al. (2017) Sirt1 inhibits oxidative stress in vascular endothelial cells. Oxidative Medicine and Cellular Longevity 2017(2): 1-8.
13. Williams A B, Björn Schumacher (2016) P53 in the DNA-Damage-Repair process. Cold Spring Harbor Perspectives in Medicine 6(5).

ISSN: 2574-1241

DOI: 10.26717/BJSTR.2021.37.005935

Xuemei Bai. Biomed J Sci & Tech Res