ORIENTAL MEDICINE AND ITS MOLECULAR BIOLOGY (PART-8)

東洋医学とその分子生物学 (その 8)

○Motofumi Takashima, M. D., Ph. D.

Primary Medical Care Counselling

Research Institute

Nishinomiya City, Japan.

Bio-hypothesis of MSCC (気) • Blood (血) • Water (水) and 3 Negatives 3 Positives (三陰三陽) • Create-destroy's opinions (相生-相剋論) has been existing in the world of atomic DNA, and therapeutic principle based on this could produce a qualified gene.

Key words

MSCC=mental spirit concentration consciousness (気=KI) , electron microscopic preparations = the specimen for electron microscopic level is known as ultra-micro autoradiography, the different specimen for the ordinary microscopic level is called as micro autoradiography, and the specific type of radio active nuclear ^3H has been used in all these cases. ^3H =tritium=triple hydrogen—this radio active gas can be prepared by exposing the same type of hydrogen ^3H • cyclotron with beryllium in deuterium ions (heavy hydrogen) . Maxam • Gilbert's DNA sequencing method= it is a popular method for isolation of gene bands of DNA by electrophoresis. autoradiography = it is an investigating method by dry plate and also by emulsified film surfaces exposing to light for detecting gene bands of DNA, its locations and displacements. This technic for preparing a copy or picturing of gene bands is called as autoradiograph.

Introduction

There is a debt of gratitude for having a chance of talking the Oriental Meaicine and its Molecular Life Science Medicine such as Pre Veda Medicine(B.C.2500 years), Veda Medicine(B. C. 2000→800 years), Ayur.. Veda Medicine (3000 years), Oriental Medicine (2500 years) , Western Medicine, cDNA (complementary DNA) and bio-technology of gene cloning. Some research papers concerned to the bio-hypothesis of MSCC (気) • Blood (血) • Water (水) and the therapeutic principle derived from the opinions of Pre Veda Medicine were also published (4,5,6,7,8,9,10,11,12,13,14,15) . Sequences and gene structures of atrial natriuretic poly peptide (ANP=心 Na 素) were prepared from post mortem materials of atrium collected at the Second, Department of Pathology, Kobe University School of Medicine from 1975 to 1985 as described (5,10). From these 2823 base pair nucleotide sequences ($11292 \div 4 = 2823$), a genetic music of human heart was found out(16).

Materials and methods

(1) To observe the negative or positive operon in a thread of double helix DNA by 23 million time electron microscopic computergraphy, the radio active ^3H • thymidine was added in to a cultured medium of white blood cells, and then taking out these white blood cells after 2 hours for the preparations of electron microscopic specimen. A picture of atomic DNA in a white blood cell with a length of 170 μm and a breadth of 20 $\text{\AA}$ (Angstrom) was demonstrated by 23 million time electron microscope. The thread of DNA in this white blood cell was again cut out in cross-section as CT Scan, and 3 D (dimension) computer graphic picture of complete atomic DNA's structure was reconstructed by using Dynapix V / version up and IBM's method of DNA animation (atomic structure) programs. The constructed external shell of 5 mountain-like elevations was very similar to the clockwise rotation of 5 elements considering as Create (相生) and the central core seemed to be for Destroy (相剋) as described in the work of reference's (1).

(2) The oral administration of Japanese herbal medicines (和漢医薬) such as Goreisan (五苓散), Shosaikoto (小柴胡湯), Daisaikoto (大柴胡湯), and Tokishakuyakusan (当歸芍薬散) were used to prove the existing nature of therapeutic principle of activating blood stagnation (活血化瘀治療方針) based on MSCC (氣) • Blood (血) • Water (水). Blood component changes (血液成分変化), ANP increases, c. AMP changes, DNA synthesis, Na and water irrigations could be seen as described in the references of (2),(3),(4),and (5).

(3) Experimental animals (nude mice & wistar rats), chronic liver and kidney diseases were treated with Goreisan (五苓散) just to see the effect concerned to the strong peptide atrial natriuretic factor (ANF = ANP = 心 Na 素) and its gene structure (遺伝子構造) as described in the references of (5),(8)and (17).

(4) Results obtained from the gene structures of atrial natriuretic poly peptide of human postmortem atrium, 2823 base pair nucleotide sequences could be arranged as a genetic music of human heart (16).

(5) Meridional Electrical acupunctures (経絡の電気針治療) using correct acupuncture points (正しい経穴) could increase the blood ANP as described in reference's (6), and it was a nice method for Na and water irrigations.

(6) Treatments of Tokishakuyakusan (当歸芍薬散), Daio (大黄), and Electrical acupunctures (電気針治療) could promote for bearing a child at the periods of 4th and 5th month as described in reference's (15).

(7) Results of DNA synthesis in reference's (15) and DNA replication in reference's (2) could demonstrate 3 D computer graphic picturing of DNA replication caused by Tokishakuyakusan.

(8) A model of DNA replication in double stranded DNA molecule could be reconstructed, and this double helix served as the template for the reproduction of a larger number of new strands. This data helped for further observations of circular DNA in a white blood cell and graphic picture of DNA replication caused by Tokishakuyakusan.

Results

(1) External shell of atomic DNA (5 mountain-like structures) was very similar to the clockwise rotation of 5 elements. And also the electron microscopic computer graphic 3 D pictures in cross-section of central core foundation was as described in reference's (1), and the picture of scheme of negative or positive operons in a white blood cell was as described in reference's (3).

(2) Blood component changes (血液成分変化), ANP changes, DNA synthesis, Na and water irrigations (利水作用) by therapy's (2) were described in reference's (7).

(3) Increase of ANP (心 Na 素) and its gene structure by therapy's (3) were described in references' (5), (8) and (10).

(4) From 2823 base pair nucleotide sequences of human atrium, a genetic musical sequences of human heart could be re-arranged. This genetic music of human heart may be useful for the therapy of various heart diseases as described (16).

(5) ANP changes by therapy's (4) were described in reference's (3).

(6) Gene and hormone component changes in blood including the situation of BBT changes by therapy's (5) for ovulation and pregnancy were described in reference's (11).

(7) DNA synthesis and DNA replication caused by Tokishakuyakusan (当帰芍薬散) which performed correctly could be demonstrated by 3 D computer graphic picturing technics as described.

(8) A model of DNA replication in double stranded molecule was reconstructed, and this double helix also served as template of new strands. This could be a guide line for looking the circular DNA of a white blood cell caused by Tokishakuyakusan.

Conclusion

The existing nature of ancient Bio-hypothesis such as 3 Negatives, 3 Positives, 5 Elements • Create and destroy's opinions in the atomic DNA could be demonstrated by electron microscopic computergraphy of 3 D disposing pictures. Negatives (陰) and Positives (陽) of Oriental Medicine were Negative and Positive operons of atomic DNA for life's creation. Opinion of Negatives and Positives in Oriental Medicine made us very difficult to understand, however our advanced bio-high tech, qualified electron microscope, high grade ^3H • thymidine, and 3 D computer graphic technics could demonstrate the life's scheme of Negative and Positive operons. Therapeutic principles of human body which obeyed the existing Negative and Positive operons of life could give some good results. Principle of activating blood stagnation (この活血化方針) was one of these treatments based on Mental spirit concentration consciousness (気) • Blood (血) • Water (水), and it also seemed to be very effective for blood stagnated symptoms of human body. Water irrigation therapy (利水剤) as Goreisan (五苓散) could open a positive operon inside the anomic DNA, and it also possessed the power, to increase ANP granules (心 Na 素顆粒) in atrial muscle cells of heart. However, ANP did not release in to the blood stream in normal situation. This could be the regulatory effect and a neutral working ability (中間的な働き) of Goreisan. From 2823 base nucleotide sequences of human atrium, a genetic music of human heart could be re-arranged, and this musical therapy may be useful for the treatment of various heart diseases. And it again had a power of Na and water irrigations inside the brain and hypophysis. Water irrigations (利水), anti-

swelling (消種), and activating blood enriching blood therapy (活血補血劑) as Tokishakuyakusan (当帰芍薬散) could increase ANP in blood and c. AMP in white blood cells, and also worked for DNA synthesis and its replication. Computer graphic picturing of DNA replication caused by Tokishakuyakusan which performed correctly could also be observed, and a model of DNA replication in double stranded molecule of a white blood cell was demonstrated. This double helix served as template of all new strands, and the circular DNA in a white blood cell caused by Tokishakuyakusan was detected. This herbal medicine could also work for Na and water irrigations of internal brain and its hypophyseal system. Extending influence of Tokishakuyakusan (当帰芍薬散の及ぼす影響) on the flow of brain transmitters could also increase the nicotine acetylcholine and cytosol estrogen receptors for the possibility of ovulation and pregnancy. The correct method of meridional electrical acupunctures (正しい経絡の電気針治療) could also manage the increase of blood ANP according to the selection of acupuncture points so correctly. Low frequency electrical stimulations again managed the increase of intra-cellular Ca and gene transduction (遺伝子導入). Cyclic AMP changes, DNA synthesis, and DNA replication could be seen after treated with this kind of unstable low frequency electrical pulse waves.

The existing nature of MSCC • Blood • Water, 3 Negatives, 3 Positives, 5 Elements, Create-destroy's opinions based on Bio-hypothesis of Oriental Medicine in the world of atomic DNA could be proved by modern bio-high techs, herbal medicines, and electrical acupunctures. Chronic liver and kidney diseases of human body were improved too much according to the synthesis and replication of atomic DNA. These were reasons why the Bio-hypothesis of Oriental Medicine presented a challenge even to gene level.

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Legends of Fig. (1)~(8)

Fig. (1) Upper picture indicated the ultra-micro autoradiography of a thread of double helix DNA in a white blood cell by 23 million time electron microscope, and radio active ^3H • thymidine was used to demonstrate this thread. This picture showed the negative operon of a white blood cell and the presence of repressor inside operator. Lower computer graphic model

demonstrated the explanations of the upper picture, its functional activities in negative situation, and negative gene which did not synthesize protein.

Fig. (2) Upper picture indicated the ultra-micro autoradiography of a thread of double helix DNA of a white blood cell by 23 million time electron microscope, and the radio active ^3H • thymidine was used to demonstrate this thread. This picture showed the positive operon of a white blood cell, and the presence of RNA polymerase inside promotor. Lower computer graphic model demonstrated the explanations of the upper picture, its functional activities in positive situation, and positive gene for protein synthesis.

Fig. (3) Upper computer graphic picture indicated the gene bands of human's ANP (心 Na 素) arranged in 2823 base pair nucleotide sequences separated out by Maxam • Gilbert's DNA sequencing method. Lower picture showed the ribbon-like chemical structure of ANP and its present situation which was demonstrated by NMR (nuclear magnetic resonance) and DG (differential generator) in liquid gas. Lower right upper picture again showed a chemical structure of human's ANP.

Fig. (4) Upper ultra-micro autoradiography of white blood cells indicated DNA replications caused by 4 month oral therapies of Tokishakuyakusan (当帰芍薬散), and the lower computer graphic model indicated the accuracy of DNA replication.

Fig. (5) Left upper picture indicated a computer graphic simulation of DNA replication and how double helix served as the template of new strands. Right upper picture indicated a computer graphic demonstration of the possibility and accuracy of DNA replication caused by Tokishakuyakusan (当帰芍薬散), and the lower scheme was reported the possible pathways of Tokishakuyakusan for DNA replication by Dr. Usuki of Tsukuba University.

Fig. (6) This computer graphic Ultra-micro autoradiography of 23 million time electron microscopic picture indicated the pictures of DNA replication in white blood cells caused by after 4 month oral therapies of Tokishakuyakusan (当帰芍薬散). In this case, 2 or 3 circular DNA could be detected.

Fig. (7) Upper picture indicated a woman of 30 holding 2 sons in her arms. She suffered from infertility for 5 years, and now she could succeed to have this monozygous twin (mono-ovular twin = 一卵性双生児) after 4 month oral therapies of Tokishakuyakusan and 40 time Electrical acupuncture. Lower pictures also described the certificates of these new born babies, their dates of birth, times, body weights, and normal pattern of foot prints (足形).

Fig. (8) Left upper picture indicated a woman of 10 month pregnancy after treated with oral Tokishakuyakusan (当帰芍薬散) for 4 months and Electrical acupuncture (電気針治療) for 40 times. This 29 year old woman had a history of left ovarian teratoma operated out last year. Lower picture indicated a new born son in good health, due to 2 weeks prolonged periods of her labor, incisional operation was performed to save the life of this baby in 10 months and 15 days. The right chart certified the foot prints of this boy, date of birth (8th Feb., 1989, 12 Noon), body weight (3920 g), height (49.7cm), and he was born in normal.

Fig. 1

Fig. 3

Fig. 2

Fig. 4

Fig. 5

Fig. 6

Fig. 7

Fig. 8