

## Editorial

### 和温療法

### Waon Therapy: Soothing Warmth Therapy

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Medical progress in the 20th century has been striking, and the advancement of the diagnosis and treatment of cardiovascular diseases has greatly contributed toward prolonging life expectancy. However, for patients who receive treatment for diseases, this being not limited to cardiovascular diseases, there is no way of determining the gravity of internal suffering and conflict. Patients accept any examination and treatment that can help them to recover from diseases, even when it may involve pain. All surgery, radiotherapy, chemotherapy, and transplant therapy are therapies that inflict considerable pain and long term suffering on patients, mentally and physically. Patients still accept such therapy, because they expect it to help them recover from their disease.

Without suffering from the diseases, it is impossible to understand the extent of pain, tension, and stress that are imposed on patients with the purpose of saving life. Even if the suffering of patients arising from various intractable diseases can be treated with inpatient hospital care at a large hospital combined with state-of-the-art medical facilities, patients have no opportunity, during the course of treatment, to experience a feeling of comfort and a pleasant state of mind arising from refreshing perspiration.

The treatment modality "thermal therapy" that I have worked on since 1989 is a warming therapy for soothing the mind and body equally, with 60 °C dry far-infrared sauna bathing. Therefore, if "thermal therapy" is referred to as "Waon therapy," it

is easy to understand the true meaning as distinguished from, for example, "local high-heat therapy for cancer." "Soothing warmth: Waon" is a word I have coined, and "Waon" can be understood in Japanese as "soothing warmth," meaning "warmth that comfortably refreshes the mind and body." In other words, "Waon" is the essence of the "thermal therapy" that I have been improving and refining for eighteen years. Therefore, to obtain a correct understanding of my "thermal therapy" modality, I would like to refer to it as "Waon therapy: soothing warmth therapy" and I would like to familiarize readers further with the idea.

"Waon therapy" is defined as "therapy in which the entire body is warmed in an evenly heated chamber (device) for 15 min at a temperature that soothes the mind and body, and after the deep-body temperature has increased by approximately 1.0 - 1.2 °C, the soothing warmth effects are sustained by maintaining the warmth at rest for an additional 30 min, with fluids corresponding to perspiration being supplied at the end."

There are various clinical applications<sup>1-11)</sup> of "Waon therapy," and the effects are dramatic. In particular, a drastic recovery is often seen in intractable diseases that are resistant to drug therapy, such as severe heart failure,<sup>1)</sup> which is an indication of the need for a heart transplant, peripheral artery disease with intractable ulcer,<sup>6)</sup> chronic fatigue syndrome,<sup>8)</sup> severe fibromyalgia syndrome,<sup>9)</sup> and salivary secretion failure caused by Sjögren's syndrome.<sup>10)</sup> The effects are remarkable, and "Waon

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therapy" is not simply therapy for organs and local sites. It also improves the systemic vascular function, corrects central and peripheral autonomic nerves and neurohumoral factors (hormonal activity) and activates autoimmunity and the bio-defense mechanism.

If "Waon therapy" is performed once a day for 3 - 5 days a week over the course of a 2 - 6-week period (10 weeks for peripheral artery disease), a clearly positive effect on the intractable diseases mentioned above can be obtained. Furthermore, with subsequent continuation for 2 - 3 days a week, the effects of "Waon therapy" can also be steadily maintained.

To demonstrate the effectiveness of "Waon therapy" as a comprehensive therapy, the effects on chronic heart failure are briefly described in the following example. "Waon therapy" improves the clinical conditions, cardiac function, and vascular function of patients with chronic heart failure and corrects abnormal autonomic nervous response and neurohumoral factors.<sup>3)</sup> It dilates systemic arteries and veins to reduce the preload and afterload on the heart and significantly increase cardiac output.<sup>1)</sup> Arrhythmia caused by chronic heart failure is significantly decreased.<sup>4)</sup> In addition, "Waon therapy" considerably improves a depressive state, insomnia, anorexia, and ill feelings of patients with heart failure.<sup>3)</sup> If "Waon therapy" is performed once a day for 5 days a week over the course of a 2-week period (10 times in total), cardiomegaly is significantly reduced, the cardiac function is improved, and atrial and brain natriuretic peptides can be significantly decreased.<sup>3)</sup> If "Waon therapy" is subsequently continued even further, then the prognosis of patients with chronic heart failure tends to significantly improve. In an investigation using a heart

failure model (TO-2 hamsters), it was verified that the group for which "Waon therapy" was continually repeated once a day had a 35% improved survival rate compared to the group without this therapy.<sup>12)</sup>

"Waon therapy" significantly improves the endothelium-dependent vasodilatory potency of patients with heart failure. In an experiment using heart failure model hamsters, "Waon therapy" considerably increased the expression of mRNA of vascular endothelial nitric oxide synthase (eNOS) in vascular endothelial and intensified the expression of eNOS protein.<sup>13,14)</sup> A remarkable expression of mRNA and protein of eNOS was also observed in an experiment with peripheral arterial disease models.<sup>15)</sup> Specifically, after an apolipoprotein E-knock-out mouse has a femoral artery removed, if "Waon therapy" is continually repeated once a day for 35 days, the expression of mRNA and the protein level of eNOS also considerably increases, while the number of blood capillaries increases, the blood flow remarkably improves in the ischemic limbs, and angiogenesis can be achieved. In other words, "Waon therapy" is deeply involved in the production of effects on genetic, molecular, and cellular levels, and this treatment modality therefore plays an important role in the recovery of the living body.

"Waon therapy" is safe and highly cost-efficient, and is also a gentle comprehensive therapy that soothes patients and encourages refreshing perspiration, unlike conventional therapy, which often requires the patient's endurance. I sincerely hope that "Waon therapy" will be approved for coverage by medical insurance as soon as possible, as a new therapy for the 21st century. Such approval would be very good news for our patients.

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20世紀の医学の進歩はめざましく、心・血管疾患の診断および治療の発展は平均寿命の延長に大きく貢献してきた。しかし心・血管疾患に限らず病気を有し治療を受ける患者にとって、内面の苦悩・葛藤がどれほど深刻なものであるかは知る由もない。病気からの回復に役立つ検査や治療であれば、いかなる苦痛を伴うものでも患者は受け入れる。20世紀に飛躍的に発展した外科手術・放射線治療・化学療法・移植療法のすべては、患者の心身にかなりの苦痛と我慢を強いる治療法である。それでも患者がこれらの治療を受け入れるのは病気の回復に役立つことを期待しているからである。

救命するとの大義のもとで、患者に与える痛み・緊張・ストレスがどれほど大きいかは、同じ病に苦しめない限り理解することはできない。種々の難治性疾患に苦しむ患者が、最先端の医療設備を兼ね備えた大きな病院で入院加療できたとしても、治療中、爽快で心地よい汗をかき、笑顔がこぼれる気分や心境になる機会はない。

平成元年(1989年)から取り組んできた「温熱療法」は、全身を均等に60℃の乾式遠赤外線サウナ浴で心身を和ませる・ぬくもり療法である。したがって、「温熱療法」を「和温療法」と命名すると、「癌に対する高温での局所療法」などと区別して真の意味を理解しやすい。「和温: Waon」は私の造語であるが、「和温」の二文字は訓読みで「なごむ・ぬくもり」で、「心地よく心身をリフレッシュさせるぬくもり」の意味がある。すなわち、「和温」は著者がこれまで18年間の歳月をかけて確立した「温熱療法」の真髄である。したがって、これまで取り組んできた「温熱療法」の正しい理解を得るために、「和温療法: Waon Therapy」と命名して、今後は普及させたい。

「和温療法」は、「心身を和ませる温度で全身を15分間均等加温(器)で保温し、深部体温を約1.0 - 1.2℃上昇させた後、さらに30分間の安静保温で和温効果を持続させ、終了時に発汗に見合う水分を補給する治療法である」と定義する。

「和温療法」の臨床応用は多彩である<sup>1-11)</sup>が、その効果には目を見張るものがあり、とくに薬物療法で治療抵抗性の難治性疾患(心臓移植の適応となる重症心不全<sup>1)</sup>、難治性潰瘍を伴う閉塞性動脈硬化症<sup>6)</sup>、慢性疲労症候群<sup>8)</sup>や重症の線維筋痛症<sup>9)</sup>、シェーグレン症候群に伴う唾液分泌不全<sup>10)</sup>)に劇的な回復をみせることが少なくない。これらの効果は実に多彩で、「和温療法」は単なる臓器や局所の治療法ではない。全身の血管機能を改善し、中枢・末梢の自律神経や神経体液性因子(ホルモン活性)を是正し、自己免疫や生体防御機構を賦活化する。

「和温療法」を1日1回、週3-5日間、2-6週間、施行すると(閉塞性動脈硬化症では10週間)、前述の難治性疾患に明瞭な効果が得られる。さらに週2-3日間の反復継続により「和温療法」の効果は確実に持続する。

「和温療法」がいかに包括的治療として優れているかを実証するために、慢性心不全に対する効果を例にして簡潔に記す。「和温療法」は、慢性心不全患者の臨床症状・心機能・血管機能を改善させ、自律神経や神経体液性因子の異常を是正する<sup>3)</sup>。全身の動脈・静脈を拡張させて心臓に対する前負荷・後負荷を軽減し、心拍出量を有意に増加させる<sup>1)</sup>。慢性心不全に伴う不整脈は著しく減少する<sup>4)</sup>。また「和温療法」により心不全患者の抑うつ状態・不眠・食欲不振・気分不良などは著明に改善する<sup>3)</sup>。「和温療法」を1日1回、週5日間、2週間(計10回)施行すると、心拡大の有意

な縮小，心機能の改善，心房性ナトリウム利尿ペプチドや脳性ナトリウム利尿ペプチドの有意な減少などが確実に得られる<sup>3)</sup>。「和温療法」をさらに反復継続すると心不全患者の予後を有意に改善する。心不全発症モデル(TO-2ハムスター)を用いた検討で、「和温療法」を1日1回反復継続施行した群の生存率は，施行しなかった群に比べて35%生存率を改善することが確認されている<sup>12)</sup>。

「和温療法」は心不全患者の内皮依存性血管拡張能を有意に改善する。心不全モデルハムスターを用いた実験で、「和温療法」は血管内皮における血管内皮型一酸化窒素合成酵素(endothelial nitric oxide synthase: eNOS)のmRNAの発現を著明に増加させ，eNOS蛋白の発現を増強する<sup>13,14)</sup>。eNOSのmRNAおよび蛋白の著明な発現は，閉塞性動脈硬化のモデル実験でも確認

されている<sup>15)</sup>。すなわち，アポEノックアウトマウスの大腿動脈の剥離後，「和温療法」を1日1回，35日間，反復継続すると，eNOSのmRNAおよび蛋白の発現は著明に増加し，毛細血管の数は増加し，虚血肢の血流の著明な改善と血管新生が得られる。すなわち，「和温療法」は遺伝子レベル，分子レベル，細胞レベルでその効果発現に深く関与し，生体の回復に重要な役割を演じている。

「和温療法」は安全で対費用効果に優れ，我慢を強いる従来の治療法とは異なり，患者を和ませ爽快な発汗を促す優しい包括的治療法である。「和温療法」が21世紀の新しい治療法として，1日も早く保険医療として承認され，患者の福音になることを心から願いたい。

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