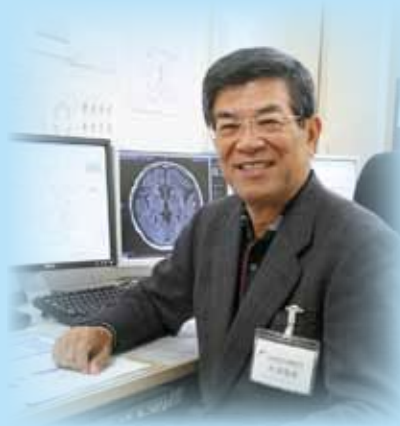


Cephalic hypersensitivity syndrome:

A revolutionary approach to healing chronic illness syndrome

Kosuke Oota, DMSc.



Endorsement

A message for clinical studies of chronic illness syndrome

Healthcare can perhaps best be understood as the application of medical science to the needs of society. Medical science itself, however, is always a work in progress—a point made clear by Professor Shinya Yamanaka, recipient of the Nobel Prize in medicine for his work leading to the discovery of induced pluripotent stem cells. Speaking at a press conference following the award ceremony, Professor Yamanaka summed up the state of medical science thus: "We have yet to cure a single patient." The mechanisms underlying the workings of the human body and the body's disorders remain a largely unexplored domain. As if to drive home this point, the international community was recently shaken by the emergence, literally right before our eyes, of Ebola hemorrhagic fever in Africa. In today's globalized world, where society has become increasingly diverse and complex, closing the gap between medical science and its application to society is becoming increasingly difficult and ever more critical.

In this book, Dr. Kosuke Oota, honorary director of the Brain Attack Center, Oota Memorial Hospital, addresses issues surrounding the contemporary disease classification referred to as chronic illness syndrome. Dr. Oota epitomizes the clinician who has "the intellectual rigor to carefully examine the patient and observe with one's own eyes, ears, and hands, and completely revise one's hypothesis, when necessary, in light of new data and observations." Although he has been careful to stress that this book is not a medical text and is instead intended for a more general audience, it nevertheless contains careful academic descriptions of medical interviews, diagnoses, treatments, effective medications, and related references and documentation, all of which serve to raise the level of this work well beyond publications intended for the general public.

The reasons for publishing this book are twofold: to raise awareness among patients who have long suffered from chronic headache that cephalic hypersensitivity syndrome is an actual medical condition; and to encourage young clinicians to take an unbiased and open-minded approach, and to observe symptoms with the keen eye of a scientist—even though they may be confronted with the claim that no evidence yet exists for "cephalic hypersensitivity syndrome".

Specifically, Dr. Oota puts forth three hypotheses: that many cases of chronic

illness syndrome are the result of cephalic hypersensitivity syndrome; that cephalic hypersensitivity syndrome can be explained in terms of synaptic plasticity occurring on the molecular level; that a bio-psychosocial model is a more suitable approach for treating cephalic hypersensitivity syndrome.

Further clinical studies are required concerning these three hypotheses. Unlike the progress in basic medical science which has kept pace with advances abroad, clinical studies in Japan lag far behind those in other countries. One reason is that analytical techniques and methodologies such as biostatistics are essential for clinical studies, yet few researchers with these skills are currently working in clinical settings. Another is that clinical studies such as longitudinal cohort studies require extensive data collection and long-term follow-up, and consequently the rate at which such studies are published is relatively low, whereas researchers tend to concentrate on basic medical science since results are more readily “publishable.” This book presents 42 cases of chronic illness syndrome. My interest lies in how to generalize these cases to clinical knowledge, and it is my hope that this book will dramatically advance case-based clinical studies of cephalic hypersensitivity syndrome in real-world settings.

This book is aimed at the non-specialist, and as such it contains numerous illustrations and annotations that make for fascinating and entertaining reading. For example, in one corner of the figure titled “How lifestyle can increase serotonin levels—the happiness hormone” is an illustration showing one of the author’s fond memories: “Me in front of my father and my two sisters perched on a washboard strapped to the luggage rack; all four of us are setting out together on a 28-inch bicycle to go swimming in the sea—a rare event nowadays. One of my cherished memories.” It is heartwarming to follow the development of thought of this celebrated neurologist and neurosurgeon from his humble beginnings and as he shares his joys and sorrows during his fifty years of service. This work is far more than informative—it is a celebration and affirmation of life itself, offered by Dr. Oota in the hope of inspiring the next generation of clinicians.

As to how young clinicians to whom Dr. Oota is passing the baton will respond to this book, I believe there is really only one choice—and that is for healthcare to return to its roots as the application of medicine to the needs of society.

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Cephalic hypersensitivity syndrome:

A revolutionary approach to healing chronic illness syndrome

Kosuke Oota. DMSc.

The rising incidence of cephalic hypersensitivity syndrome

What is **cephalic hypersensitivity syndrome**?

Intractable headache, dizziness / vertigo, insomnia, numbness, and other intractable conditions are common.

These intractable conditions...

Are difficult to treat with prescription medication

Interfere with everyday activities



In fact, intractable conditions are often caused by **cephalic hypersensitivity syndrome**

Cephalic hypersensitivity syndrome (CHS) occurs when neurons in the brain become hypersensitized to stimuli such as pain, dizziness / vertigo, and numbness, resulting in numerous conditions including **cryptogenic headaches, dizziness / vertigo, tinnitus, insomnia, and pain.**

The most severe form of **cephalic hypersensitivity syndrome** is **epilepsy.**

This is a manifestation of **cephalic hypersensitivity syndrome** that can be effectively treated with **antiepileptic drugs.**

“Pain” and “numbness” may not seem like significant symptoms, but if they recur repeatedly, they may progress to become an intractable chronic condition.

- Originally **Migraine**
- Originally **Meniere's disease**
- Originally **Sudden deafness**
- Originally **Vertigo treated by ENT specialist**
- Originally **Lower back pain/menstrual pain**
- Originally **Stiff shoulders**
- Originally **Insomnia**
- Originally **Numbness in a limb**
- Originally **Mild pain**



More complex transformation



- Intractable vertigo**
- Intractable headache**
- Intractable chronic pain**
- Allodynia**
- Intractable insomnia**

This **transformation** (a change in shape or form) means that attempts to treat the original condition are not very effective, and the symptoms eventually become **intractable**.

Introduction

Science progresses by developing hypotheses in response to the observation of natural phenomena. Only when a hypothesis has been verified to the point that it can no longer be denied does it become accepted as fact.

Kosuke Oota

“Cephalic hypersensitivity syndrome” is the reality underlying chronic pain, a clear and convincing hypothesis that is backed up by clinical experience.

When we consider the history of civilization from ancient times to the present day, the history of medicine as an actual "science" is quite short. Science, as we know it today, developed as an offshoot of alchemy, astrology, and other forms of magic. Viewed in the context of the transformation of human anatomy from our ape-like ancestors to modern *Homo sapiens* over several million years, the period from human pre-history to the present day is a mere moment in time. Viewed in this context, many of the "diseases of civilization" have been present since ancient times, and thus “disease” can be understood as the biogenic process of human anatomy attempting to adapt itself to the environment.

How did this shift in thinking from alchemy and astrology to "science" come about? I believe that a third thought process—that of "awareness of the process of establishing a hypothesis" occurred, which Charles Sanders Peirce was later to describe as "abduction" and "retroduction." This paradigm shift in thought is clearly exemplified in Copernicus' publication of the heliocentric theory and Newton's discovery of gravity. Personally, I regard the process whereby Kepler found that his calculations were consistent with his observed data and postulated his "new model" of the solar system as the moment at which astrology was transformed into science. Kepler's achievement led directly to Newton's law of gravity and eventually to Einstein's theory of relativity. Without Kepler's laws, contemporary astrophysics and astronomical observations would never have been possible. Given this lineage, it seems quite fitting that *Kepler* was chosen as the name for one of the telescopes NASA launched into deep space.

Cephalic hypersensitivity syndrome, the medical condition about which this book has been written, is the premise that currently best explains the observed phenomenon of clinical experience. Academic medical science currently takes as its premise that something (a theory) must be “true” if it is “capable of explaining a large number of cases.” In fact, some scientists and philosophers are of the opinion that matters to which this premise does not apply are not worth considering within the framework of “science.” However, there is no guarantee that premises which are true today will be true tomorrow, nor will they necessarily be true for the next patient we encounter. When a new phenomenon is observed, what is important is having the mental capacity not to simply dismiss it as atypical, but rather to attempt to relate it to an established or accepted hypothesis. Of course, it is good to refer to guidelines, and the literature reviews of evidence-based medicine are also important. For clinicians, however, what is most important is to have “the intellectual rigor to carefully examine the patient and observe with one’s own eyes, ears, and hands, and completely revise one’s hypothesis, when necessary, in light of new data and observations.” At the same time, clinicians must continue to challenge their intellect by questioning their beliefs and assumptions to as great an extent as possible from multiple perspectives of various theories and principles, in an ongoing search for a consistent theory of general natural science.

Busy clinicians have limited time to engage in such intellectual pursuits. That is why I have decided to set down in this book the understanding I have reached at this point in my practice, in order to entrust the further development of these ideas to those who come after me. This book is not a medical textbook and is written instead for a general readership. I will consider my efforts successful if this book helps those suffering from chronic pain to better understand their own condition, enables family members and society at large to better understand the situation of these patients, and is helpful in releasing as many of people as possible from their suffering. Finally, I would like to express my gratitude to my late wife Shoko who supported me in these endeavors, and all the people who worked so hard to bring this book to completion.

May 20, 2014 Kosuke Oota

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My first epilepsy outpatient clinic

In April 1972, I was appointed to a position in the National Hospital Organization Fukuyama Medical Center (formerly, National Fukuyama Hospital) in Fukuyama City, Hiroshima Prefecture. At the time, Fukuyama City was a major urban area located between Okayama City and Hiroshima City, with a population of around 340,000. The distance between Hiroshima and Okayama is around 160 km. At that time, none of the hospitals in that region were capable of performing neurosurgical procedures.

I was appointed for the purpose of establishing a Department of Neurosurgery in National Fukuyama Hospital. We saw many cases of subarachnoid hemorrhage resulting from ruptured cerebral aneurysm, and my first task was to train clinicians in the surgical treatment and management of such cases.

However, in the period following my appointment, not many evaluations or operations were performed. The director of the hospital, Dr. Toshiyuki Nakamura, noticed that I had plenty of free time and asked me to start looking after patients with epilepsy. Soon afterward, I opened an epilepsy outpatient clinic at the hospital. At the time, the main antiepileptic drugs were Aleviatin (phenytoin), Phenobarbital (phenobarbital), Primidone (primidone), and Tegretol (carbamazepine).

My first psychiatric outpatient clinic

The head of the Department of Psychiatry at the time was Dr. Hideyuki Miyaji. Occasionally, when he was occupied or unavailable, he would ask me to see his patients in the psychiatric outpatient clinic. I agreed, thinking it was unlikely to involve anything more difficult than writing prescription refills. It was in this clinic that I first encountered the antidepressants Tryptanol (amitriptyline) and Noritren (nortriptyline).

My first encounter with cephalic hypersensitivity syndrome

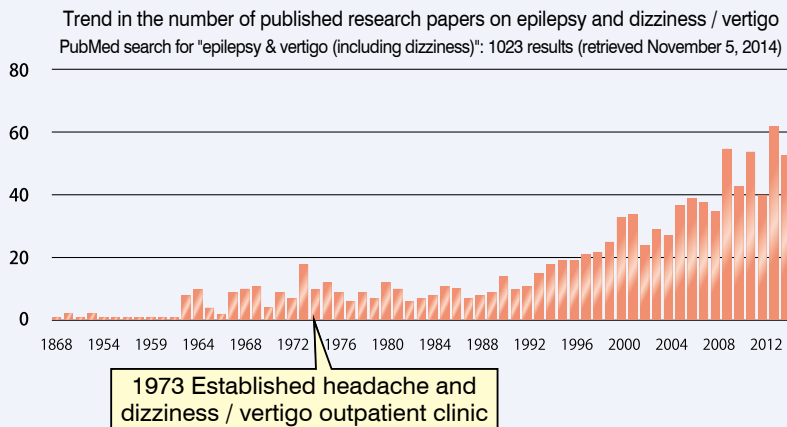
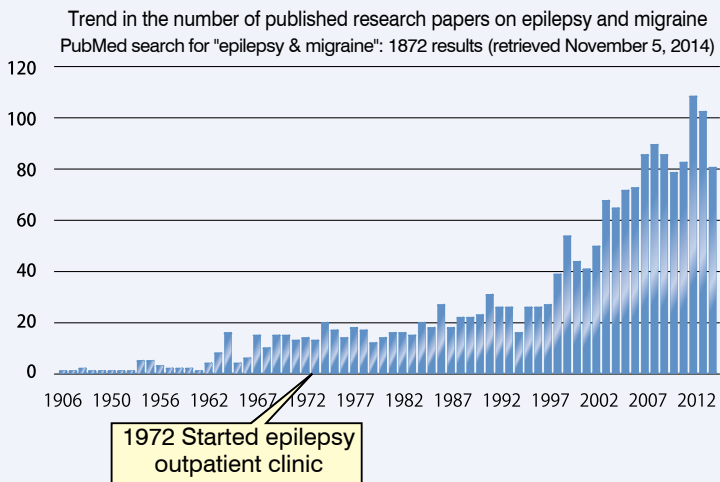
Patients suffering from convulsive seizures were being seen almost every week at the hospital. Soon after I began treating these patients, they would thank me because their headaches, stiff shoulders, or dizziness / vertigo improved after they began taking epilepsy medication. At first I took little notice of this, but after a while, I realized that an increasing number of patients were asking me to

examine them because they were suffering from headache, dizziness / vertigo, or stiff shoulders.

That was just at the time when the use of stereotactic brain surgery to treat Parkinson's disease had started. In the Parkinson's outpatient clinic, I noticed that when depressed patients with Parkinson's were prescribed low doses of Tryptanol (amitriptyline), their headaches and stiff shoulders improved, and I began to suspect that Tryptanol (amitriptyline) must have an analgesic effect.

It so happened that the room for the doctor on duty was on the second floor, and it had a window overlooking a ramp leading to the hospital entrance. Patients, sometimes accompanied by their relatives, would queue up on the ramp, waiting to be examined. They had come early to take one of the numbered tickets for examination (issued on a first-come first-served basis). From my second-floor window, I could overhear their conversations. They were saying things like, "If only I can manage to get examined by the new brain surgeon, then my headaches... or stiff shoulders...or vertigo will be cured!" Totally unbeknownst to me, I had acquired a reputation as the doctor who cured headache, stiff shoulders, dizziness / vertigo, and insomnia.

I was the only specialist between Hiroshima and Okayama who was capable of performing surgery on cerebral aneurysms, and gradually my time became taken up with evaluations and surgery. In 1974, I performed about 200 operations, surpassing the Department of Neurosurgery of the National Cancer Center as the national leader in the number of operations performed among hospitals under the jurisdiction of what was then the Ministry of Health and Welfare. This increasing number of operations meant that treating patients in outpatient clinics for epilepsy, headache, stiff shoulders, and dizziness / vertigo became increasingly taxing, both physically and mentally. Despite my reluctance, however, my outpatient clinics for epilepsy, headache, stiff shoulders, and dizziness / vertigo became my established sideline, and have remained so for 40 years since.



Origin of treatment for cephalic hypersensitivity syndrome: Tryptanol (amitriptyline) and Tegretol (carbamazepine)

These two long-established medications provided the starting point for my treatment of cephalic hypersensitivity syndrome. As I struggled to continue my outpatient clinics, my experience there made me aware that headache, dizziness / vertigo, stiff shoulders, and insomnia could be treated effectively with low-dose Tegretol (carbamazepine), low-dose Tryptanol (amitriptyline), and Noritren (nortriptyline). I realized that Tryptanol (amitriptyline) 5–10 mg, Tegretol (carbamazepine) 50–100 mg, and Phenobarbital (phenobarbital) 10–30 mg taken once nightly were effective treatments. I created coded prescriptions within the hospital using abbreviations like Try A, Try B, Teg A, and TryTeg. The active ingredient in Tryptanol is amitriptyline, and the active ingredient in Tegretol is carbamazepine. Tryptanol (amitriptyline) is a tricyclic antidepressant, and Tegretol (carbamazepine) is an antiepileptic. The molecular structure of these two drugs is very similar. Interestingly, Tegretol (carbamazepine) is also contraindicated for patients with hypersensitivity to Tryptanol (amitriptyline). At that point, I switched from prescribing Tryptanol (amitriptyline) to Noritren (nortriptyline), which has fewer side effects. Tryptanol (amitriptyline) is demethylated in the body to form Noritren (nortriptyline). When determining which drug to prescribe, a judgment needs to be made with respect to how the drug will be metabolized in the body based on its structural pharmacology. Although the medication in the prescription has since been switched to Noritren (nortriptyline), the prescription code Try A has been used for 42 years since my early days at the National Fukuyama Hospital, all during my tenure at Oota Memorial Hospital, and up to the present in Myojinkan Neurosurgery Clinic. The details of the prescription are given on page 111.

