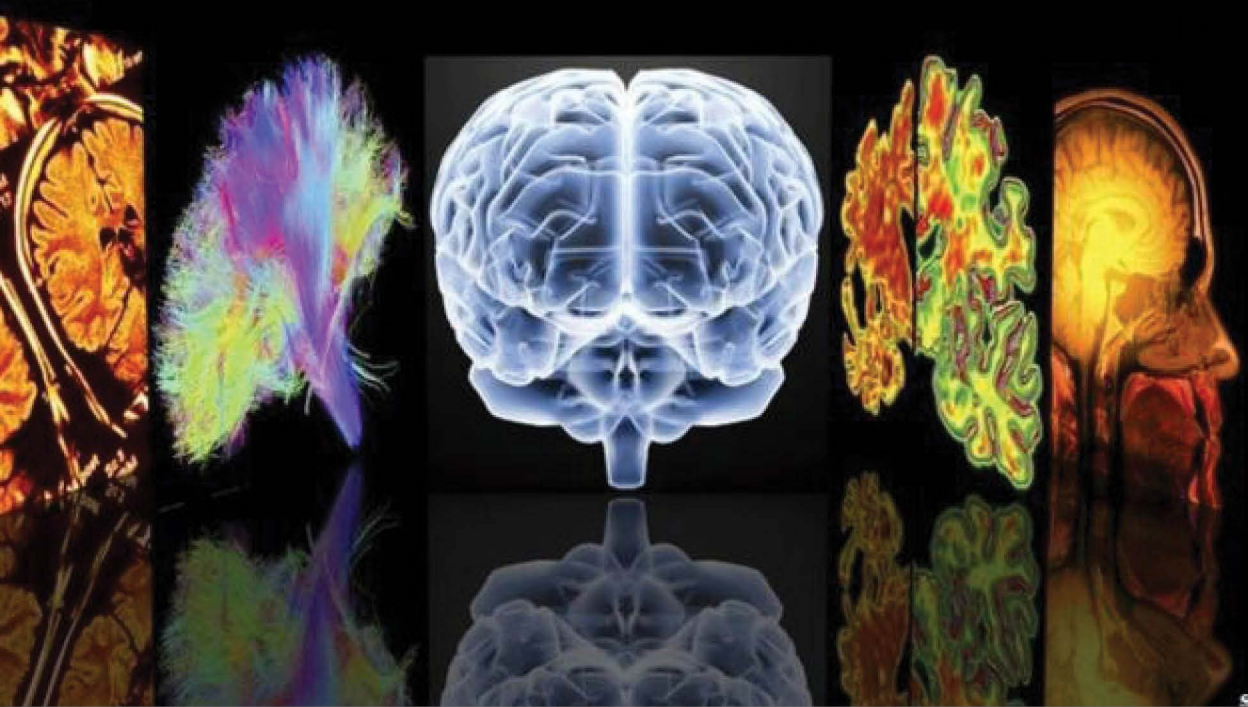


Alzheimer's Disease, Recent Research



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Preface

The aim of this book is to serve as a first approximation to those who have in yourself or your family in Alzheimer's Disease.

The incidence of Alzheimer's Disease has increased in the number of cases in recent years, which in turn affected have prompted many questions arise when a person or family receives the diagnosis, such as, What is Alzheimer's Disease?, What is the origin of Alzheimer's Disease?, Is there to treatment for Alzheimer's Disease?, How the Alzheimer's Disease progresses?, What are the consequences of Alzheimer's Disease in everyday life?, What are the psychological effects of Alzheimer's Disease on the patient?, it is possible to Alzheimer's Disease transmitted to the children?

It opens to lot of question issues to deal with to appease the uncertainty caused learn that suffer an increasingly "common" and widespread disease, and who hardly know about the latest scientific advances in this area, because largely due to the technical complexity of the language used, but also because these advances usually come only specialists through meetings and conferences where such information is shared.

This book tries to present clearly the results of the latest research on Alzheimer's Disease, which answer the most important questions, both from the point of view of the patient and their families, starting with the main, What is Alzheimer's Disease?

A handwritten signature in black ink that reads "Juan Moisés de la Serna" with a stylized flourish underneath.

Signature

Thank you

About Author



Juan Moises de la Serna, I was born in Málaga. Ph.D. in Psychology, Master in Neuroscience and Behavioral Biology and Specialist in Clinical Hypnosis, recognized by the International Biographical Center (Cambridge - UK) as one of the hundred best healthcare in the world in 2010.

I have dedicated part of life to the study and research of human behavior, looking into the concerns and motivations that lead us to achieve our objectives and goals. This scientific knowledge is completed with the experience gained during my work as a psychotherapist.

I have taught at various national and foreign universities, as well as participated in symposia and conferences throughout the world.

Author of numerous studies of clinical psychology that I have published in several books and scientific journals of international relevance.

Acknowledgements

Leverage from here to thank all those who have collaborated with their contributions in achieving this text, especially QUAZI IMAM. M.D., Medical Director at Arlington Memorial Hospital (U.S.A.) and personnel of the State Reference Center of Care for people with Alzheimer's Disease and other dementias (Alzheimer CRE) of IMSERSO of Government of Spain.

Dedicated to my parents!!!

Alzheimer's Disease, Recent Research

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Introduction

The aim of the book is to serve as a first approximation to those people who have Alzheimer's Disease itself or within their family.

This disease has been increased in terms of the number of cases in recent years, which in turn has led to many questions emerge when a person or a family member receives the diagnosis, such as, What is Alzheimer's Disease? What is its origin? Is there treatment? How evolving disease? What is the consequences in everyday life? What are the psychological effects on the patient? It can be overcome? Is it transmitted to the children?

It opens before us all a melting pot of issues to try to assuage the uncertainty that causes find out that we are suffering from a disease increasingly more "common" and extended, and that it just known about the latest scientific advances in this area, due largely to the complexity of the technical language, but also because these advances are often only reach specialists through meetings and conferences where this type of information is shared.

This book is clearly present the results of the latest research on Alzheimer's Disease, which answer to the most relevant issues, both from the point of view of the patient and their family members, starting with the main what is Alzheimer's Disease?

Alzheimer's Disease

Alzheimer's disease is a neurodegenerative disease, that is, that it mainly affects the brain, and that this is going to be losing their functions gradually.

In concrete is produced by the emergence of certain cells such as senile plaques and tangles, which will be accumulated within the brain, causing a gradual loss of functionality, of which the most obvious is the deterioration of memory.

The name of this disease is due to its discoverer psychiatrist Alois Alzheimer who, in 1906, first collected in writing the signs and symptoms of this disease. You must differentiate the consequences of this disease in the progressive loss of memory of what is due to the simple passage of time, and at an advanced age, must also explore to rule out that there are other pathologies that may explain these memory problems.

Alzheimer's Disease has the feature of leave extended by different brain regions, which

will have a progressive effect on the mode of thinking, feeling and behaving person, starting with the loss of memory.

These changes are going to lead, eventually, to major deterioration in capabilities for the performance of the daily life of the patient, both affecting their quality of life, as their independence. This disease is found within the Group of the dementia, defined these as loss of function that the person had already developed, speech, thought or memory.

With memory loss Alzheimer's Disease, but is not the only symptom, or be the first to appear, because for years it has been discovered that initially emotional and behavioral changes can occur, which can sometimes be confused with alterations associated with age, in fact, and as will be seen in the corresponding section, exist surveys for early detection of Alzheimer's Disease, looking precisely for these changes, and not so much memory alteration, as is the case of the Inventory Neuropsychiatric (NPI). This disease has a "silent" home, and isn't until after ten or twenty years about when memory problems are shown as the most obvious symptom.

There are many factors involved in the deterioration of this disease, taking also into account that in the majority of cases occurs in people of advanced age, above age 60, what unites the aches and pains of age with the disease, all this together is going to be detrimental to the quality of life.

Alzheimer's Disease is within the Group of dementias, also where the Pick's disease, Lewy body dementia, all of them forming the primary dementia.

There is another group, called secondary dementia whose effects are the result of other diseases, such as problems vascular, hypothyroidism, deficiencies in vitamin B6 or tumors among others, but Alzheimer's Disease is the worst of possible dementia?

National Reference Center for Alzheimer's (Spain)

These changes are going to lead, eventually, to major deterioration in capabilities for the performance of the daily life of the patient, both affecting their quality of life, as their independence. This disease is found within the Group of the dementia, defined these as loss of function that the person had already developed, speech, thought or memory.

"This is the most common type of dementia, causing about half of all cases. It is named after the doctor who first described it. In Alzheimer's disease the brain shrinks (atrophy) and the numbers of nerve fibres in the brain gradually reduce. The amount of some brain chemicals (neurotransmitters) is also reduced - in particular, one called acetylcholine. These chemicals help to send messages between brain cells. Tiny deposits called plaques also form throughout the brain. It is not known why these changes in the brain occur, or exactly how they cause dementia. Alzheimer's disease gradually progresses (worsens) over time as the brain becomes more and more affected."

QUAZI IMAM. M.D., Medical Director at Arlington Memorial Hospital (U.S.A.)

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Is Alzheimer's Disease the worst of dementia?

This is precisely what is being investigated from the Karolinska Institute, the Karolinska University Hospital (Sweden), the University Hospital of Stavanger (Norway) and Centre for international research and University Hospital Santa Ana (Czech Republic) published in the scientific journal Alzheimer's Research & Therapy.

Researchers commented on the existence of true ignorance on part of the general population, but also of research groups with respect to other dementias, especially with the bodies of Lewy, considered to be clinically more complicated and requires greater attention from family members and caregivers, and to check their severity have been proposed to analyze the factors that influence Alzheimer's Disease facing the Lewy body dementia.

9.795 patients, being 60% men and the rest women, with an average age of more than seventy years, participated in the study where the 93.5% had diagnosis of Alzheimer's Disease and the remainder of dementia of Lewy, all of them from the national registration bodies of Patients in Sweden between the years 2007-2012

All participants underwent successive Diagnostics looking for the presence of other psychopathology by applying standardized on dementias questionnaire called the International Classification of Diseases, version 10 (ICD 10), where there is also the presence or absence of depression, anxiety, disorder behavior, bipolar affective disorder, sleep problems, cerebral hemorrhages, epilepsy, migraines, cardiovascular accidents, or headache among others.

The results show significant differences with worse outcomes for patients with dementia with Lewy bodies against those who have Alzheimer's Disease, where the first tend to take more medication, as well as suffer significantly higher incidence of depression, migraine and stroke. All this will make the negative effects on patients with dementia with Lewy bodies to increase both physical health and mental.

Memory and Alzheimer 's disease

Alzheimer's Disease is more than not knowing where the car keys were left, or miss the weekly at the hairdresser appointment, because he spent the day without even remember it, this may be simply a dismissal as a result or effect of a lower performance of memory due to age.

This disease leads to more serious and important consequences in more advanced stages may lead the person to not recognize relatives, feeling them as if they were strangers, and even causing them to lose the ability to recognize him before a mirror, without knowing who is that which is reflected there, or its name, or anything about his past. A drama for anyone, since we usually define as such, precisely because of what they've been, how we call, when and where we were born, where we have studied or worked, and so to complete with more or less memories throughout our lives.

A whole structure memory on which we build new memories, having as Foundation

already lived, to which we can access when so require it, remembering what we did in our graduation, or who gave our first kiss.

But when Alzheimer's Disease progresses, they start to appear which are called gaps in memory, which are as empty spaces in the brain, where it has lost the information it contained, thus missing the content contained there, we work on ourselves and the world that surrounds us, so when we tried to access this When we want to remember it, we were white, while just a few months ago we were able to narrate with detail about the time of our lives.

It must be borne in mind that this process of faculties and memory loss, are producing gradually with age, as part of the progressive deterioration of functions of the organism. But when Alzheimer's disease appears, everything changes, this process accelerates, producing much more visible and obvious effects that can incapacitate a person for the performance of duties of day-by-day independently.

Memory problems have been regarded for decades as the first and main symptom at the time of detection of this disease, but already a few years ago it was discovered that until it starts failing memory, the person will experience a series of changes that leave evidence that something is wrong inside.

They are changes that may go unnoticed to those outsiders to this disease, and justifying quickly with being one more affliction, own by the age of sufferers, without knowing to distinguish it from what is normal aging.

From Argentina was a big step in terms of the diagnosis of Alzheimer's disease, since it was they who collected data on behavioral changes and emotional patient, making these in the first signs of the disease, much before that memory failures are obvious. Thanks to discoveries such as this have been able to develop instruments of evaluation as the Neuropsychiatric Inventory (N.P.I.).

Also the disease shows some characteristics that are her own and defining that it is not in other neurological conditions such as the presence of senile plaques and tangles, that will be accumulated in the brain, occupying more and more space of neurons causing the progressive destruction of normal operation, what initially will performance on cognitive tasks associated with memory and healthy to subsequently move to advanced stages, affecting motor functions such as walking or eating, where the person will forget how it is made. Currently it is considered that the presence of these senile plaques and tangles is sufficient to be able establish a diagnosis of Alzheimer's Disease, the problem is that still can't be seen through the use of brain scanners and only under the microscope is can demonstrate, therefore, an analysis this is postmortem.

One of the characteristics of these diseases is that they occur at advanced ages, what makes sometimes it difficult to distinguish the loss of the performance of the cognitive functions of normal aging, or those caused by a disease such as the Alzheimer's disease. So with respect to the loss of memory it must be clarified that not every loss or lagoon will be attributable to Alzheimer's Disease since the age is observed a progressive deterioration of all physical and cognitive functions of the person, something to which we are accustomed, when we see someone older walk very slowly, or that it takes to perform a mathematical operation of complexity intermediate [1].

Until a few years ago was considered a disease with irreversible consequences, but breakthroughs are currently in drug therapies and workouts Neuropsychological, seeking to slow down the disease process, and in some cases hold for longer the skills necessary to maintain a certain level of quality of life and personal independence, but what is its origin?

Causes Alzheimer's Disease

Research current will tend to focus on the causes of Alzheimer's Disease, as well as factors

that favors its appearance and advance, to try to stop this neurodegenerative disease that is causing progressive loss of skills and capabilities that leads a person to go slowly losing its independence, requiring other people to increasingly more features. But in addition to the presence of Alzheimer's Disease it may be complicated with the emergence of other physical and psychological pathologies, among the most common of the physics are those related to cardiovascular alterations.

It is still not clear, what is the origin of the disease, as if at the beginning I associated with malfunction of the brain due to age, something as one problem of aging.

Today it has ruled out that it is associated with a progressive loss of function due to its use, as if it were a piece of machinery that, over time, will toothless, losing effectiveness until it stops working.

Although some factors are still well known causes of Alzheimer's Disease are being researched to make a better diagnosis and treatment.

Long are known some of these that facilitate the emergence of Alzheimer's Disease, as it is the case for diabetes, even manages to talk about certain percentage of genetic cause, so that they have relatives, have two to three times more likely to suffer from Alzheimer's Disease.

Factors that favor the appearance of the disease include advanced age, especially after age 60 with a small group of affected between 30 or 40 years of home.

Also, women will suffer this disease, but it is due to that the life expectancy of women is higher than that of men; head injuries will also facilitate the emergence of this disease, but there are now new causes of Alzheimer's Disease?

This is what is find out from Dalhousie University and the center of attention to the health of the elderly in Halifax (Canada) whose results have been published in the scientific journal Alzheimer's Research & Therapy [2].

In the retrospective study of the last ten years among the population of affected by Alzheimer's Disease in Canada, among which were included in a macro study called the Canadian Study of Health and Aging (C.S.H.A.), which discusses many factors of the population above 65 years started in 1991, and which began with 10.263 healthy people to analyze its evolution over time. Being a period so long almost half of the men had perished with only a third of women, bringing the number of patients in the study dropped to 7.239 which 4.337 were women and 2.902 healthy men in 1991.

Results reported that you among 7% of men and 9% of women developed some form of dementia including Alzheimer's Disease, remaining the rest cognitively. Interviewed the participants to analyze 42 possible variables that could be involved in Alzheimer's Disease that have been collected in previous research.

These include high blood pressure, heart or circulation problems, previous stroke, history diabetes, poor attitude to carry healthy habits, stomach, kidney problems, of eyes, ears, of teeth or skin, traumatic brain injury, transient ischemic attacks, hypertension, obesity, a diet rich in fat, metabolic syndrome, low intake of antioxidants, fish, vegetables or fruit, with deficiency of vitamin B, with hypothyroidism, presence of sleep apnea, anxiety, depression, anemia, with control of smoking, alcoholism, exposure to toxic environmental and pollution, carrying out activities physical, cognitive or social casualties, as well as the level of education, income and social status among others.

The results show how these factors are related to age, as one might expect, but who have a higher incidence among patients with Alzheimer's Disease.

Being better predictors of the occurrence of this disease, having suffered some sort of injury, such as traumatic brain injury, before as well as having State exposed to toxic

environmental contamination. An unexpected result has been to see how the person who had problems with the kidney, bladder control, chest pain, high blood pressure, or heart or circulation problems had a lower life expectancy.

Individual factor

The age, seems to be associated with the elderly, especially from the age of 60, with a small group of concerned with early onset ages between 30 or 40 years, which seems to be that the genetic cause is strongest.

The last stage of life, where the years, rather than help improve the skills of the person, make it increasingly less capable in the performance of the tasks; When forces will begin to fail, view already it is not what it was, the ear does not work as it should, memory begins to muddy is, at this stage is to what has been termed as old age.

It should take into account that it is a relatively frequent in our world stage. If we look back we can give us account, how the age of survival has been growing in recent years.

Previously, and now in some countries, reaching forty, was all a feat, since the life expectancy was around age thirty and few.

I still remember a story about one of my colleagues entered in years, who commented how while doing a research in an African country.

Professor concerned that one day, arriving at a Bedouin village, had been told that he should attend a community meeting, in which there was a family dispute.

This teacher, understood that it was a good opportunity to get even closer to the traditions of that town and agreed to the same. When there were joined together in a communal house, presented to a woman and one man, who accused each other of something, a kind of family rina in which participated all the people.

At one point, he was asked, what was the solution of the case, something that surprised him in, because he was a stranger in that community.

When he tried to ask why, why asking for his opinion, told him that as he had white hair because of his age, they had him wise, then his opinion was of invaluable help to solve this and other problems of coexistence that arose in the communities.

With this I want to highlight how today, the age, is valued and estimated, and assimilated to life experience and wisdom. In fact, it is so recent, this phenomenon that its around have sprung up a series of specialized branches in responding to this new reality. For example, from the field of psychology has emerged the psychogerontology, as the science of the study of the needs, motivations and behaviour of this group.

While a few years ago it was called them elders, today the most used term is older people, which usually include the age of sixty, what previously was called senior citizens, as opposed to the first age that encompassed the kindergarten, and the second age, adulthood.

Although currently tends to divide this last phase of life in two substages, the first that keeps the name of third age, until the 1980s, and from there, the fourth age. Division which today is under revision, since, with the increase of life, is beginning to ask if seniors, not it is also delaying, to seventy years, since the elders of sixty of a decade ago seem more to the 1970s. On the other hand, over the age of sixty now, still consider youth, useful, and with great vitality, hitherto unknown for that age.

Something that takes a few years putting in evidence, as the cultural concerns and to learn from the elderly beyond the own curiosity, turning many of them into the schools to resume studies who had to leave young people for various reasons, and even attending universities training to complete their knowledge.

Phenomena that universities have had to respond with specific programs such as the so-called classrooms of the experience, where courses were the most demanded by these elders, within a program, attending class with the young.

Something that has changed in many cases own classes approaches, as is not the same teaching young people to adults, since the latter are more participatory when it comes to pose their questions and concerns, based on his professional experience, something that certainly stimulates and enriches the content of the class. In addition, according to declare themselves older, go to classes and share the classroom with young people encourages them and filled them with vitality, and course while they are in class forget their woes and concerns which have daily.

In this regard, I recall the story of an elderly lady, commenting on one of his experiences in the program of classroom of the experience of the University of Seville, where one day, while looking at lists of subjects on the Bulletin Board of the faculty, passed two young students, and one of them compliment her. Something which it crimsoned him despite his years, and who shared with great satisfaction. Feeling it like a young student were more is.

About the longevity of the human species, some scientists claim that we are genetically “programmed” to live until the age of forty, so we do what we do with our bodies, we will keep us healthy and strong until then, occurring after a significant decline in our capabilities.

Other authors argue instead that there is a development curve with a large increase in the first years, a peak on the twenty or twenty-five years, and from there, a progressive reduction of capacities and abilities, both physical and mental, which is increasingly faster loss as more years are met by the simple passage of time is produced.

If there is a ‘disgrace’ by the way, everyone is going play advanced age, can scare, due to the decline of who we are, this time perhaps the most feared second after the possibility of death.

As the reality of old age brings the danger stop being what we are, to abandon the life that we carry and what we do, and even with time, having to face the possibility of relying on another person for the most basic tasks.

It is true will all spend the same, but as marks the anniversary, it is more likely that they will appear these shortcomings, and delving into the effect that they have on the daily life of the person.

This aging has been assumed as one phase within our lives, something inexorable, which will happen whether we like or not, and why everyone, sooner or later we will have to spend. But if you already by itself can be difficult to age, is more when in addition have a disease that accelerates the loss of skills, capabilities and independence.

Such is the case of the neurodegenerative diseases as Parkinson’s, dementia or the Huntington Korea, diseases with quick impact on the organism and devastating both physically and mentally.

Diseases that seem to be more present in society, which a few years ago, thanks to the media, which is also a higher incidence, explained in part by the aging population.

Of these neurodegenerative diseases, especially affecting the elderly, and that threatens their quality of life, the best known currently is Alzheimer’s Disease, about which there is a generalized concept of is a disease of our elders, that is true in most, but not all, because that can occur from age 30. Due to this differential incidence by age who suffers from it, in a didactic way was broken down a guideline ages into three groups:

Early cases (from 30 to 50 years) cover the stage when the person is in full in their personal development as labour and social function.

In date (from 50 to 70 years) is an intermediate stage of passage to old age where the person is subject to a multitude of changes, including retirement.

Late cases (aged 70) already input the maturity the patient starts to feel the aches and pains of life wear.

This does not mean that all concerned within a range of ages react in the same way, but yes in the majority of cases, so it is a good way of approaching what he thinks and feels each person according to their evolutionary time.

It which is marked also by a number of achievements and challenges in life, which will intervene both aspects of the person, as their family relationships and even at work.

In each of these stages the person will modify the way of seeing itself and interact with the world, having few desires and different needs in each case, what will determine how you will react in function also established dependency relations and their obligations.

Each age corresponds to confront disease differently, with more or less difficulty, old emotions are skin-deep and these will be expected to go so they sound even more treatment, while in others it will be the thoughts and in them you will need to have an impact.

We must consider that supports it has to assume the consequences of the disease are also different.

In the early cases are the couple and the children the most important since it is about them on which lies most of the time free of the person.

However, in the cases in date, children have passed into the background since this age already have become independent and live their lives autonomously, so find the necessary support mainly from your partner and friends.

In late cases, the person usually had left behind good part of their loved ones, since it has survived them, changing their life simply known friends who share his age.

Hence the importance of knowing what happens to the person that has been diagnosed with Alzheimer's Disease at all times to be able to provide necessary and adequate support for its evolutionary stage where it is.

The genus, for years which is noted in research all over the world women are suffering most from this disease, aspect that some attribute to the life expectancy of women is higher than that of men.

One of the many questions about Alzheimer's Disease is with respect to try to explain the differences presented depending on the gender of the patient.

Above all, because the role of genetics in disease does not seem to be as decisive as in other pathologies.

Despite which is attempting to establish what factors may be participating to explain those differences male female in Alzheimer's Disease. Differences between gender men and women that are clearly recognizable as hormonal, physiological, genetic aspects and even behavioral.

Some authors have tried to explain these differences due to the age of the patients, since women generally, by media, live much longer than men, and Alzheimer's Disease in a high percentage is associated with age, which would explain, according to these authors, women will submit to a greater extent.

Other authors for their part have tried to study differential biomarkers between men and women, such as cholesterol or the presence of ApoE4 protein, but influence the level of testosterone in the onset of Alzheimer's Disease?

This is precisely what it has tried to find out from the University of North Texas (USA), whose results have just been published in the scientific journal Alzheimer complete Research & Therapy [3].

Data were extracted from a study more so-called Longitudinal Research Cohort of the Texas Alzheimer's Disease Research Care Consortium (TARC) where is locate and analyze different biomarkers that help to diagnose early, as well as to learn about the effectiveness of treatments.

All participants went through an interview structured with the Neuropsychiatric Inventory (N.P.I.), which is used as a diagnosis, since it is noticeable even before the person begins to experience memory loss associated with Alzheimer's Disease.

In addition, all have been previously diagnosed with Neuropsychological tests such as the Mini Mental State Examination (M.M.S.E.) or the Clinical Dementia Rating (C.D.R.), with a yearly re-evaluation, and a blood test to search for biomarkers.

This study involved 87 men with a mean age of 75 years, where 44 of which showed low levels of testosterone, while the 43 of them showed normal levels.

The results indicate that, at normal levels of testosterone, it is more likely to positive symptoms such as hallucinations, irritability or motor activity from occurring. On the other hand, those patients who had low levels of testosterone, showed significantly positive symptoms described above.

The results are therefore quite revealing, in the sense that, if you undertake a pharmacological intervention, to reduce testosterone levels, positive symptoms associated with the advance of Alzheimer's Disease could be prevented.

The race, one of the most controversial aspects in the field of health, it is the influence of race when it comes to developing a disease such as Alzheimer's Disease.

If you were already controversial at its time the results found on the differences in the intelligence quotient, recently endorsed by a thesis that makes a review deep according to the level of the language of the users, as well as their culture. It is also controversial in trying to verify and examine whether there are differences in the field of mental health with respect to the breed of users.

In the field of medicine, it is well known that these differences occur, and even specific illnesses of a race that do not appear in others, but in the field of mental health is not so clear, then there are differences in terms of suffering from the disease of Alzheimer's Disease based on the race of the patient?

To do this we are going to extract the data from the Government of the city of New York offered through its Open Government page.

With respect to mental health, there is some degree of lack of transparency in providing direct data of the number of patients that there is at present, so are extracted from those data with respect to the reason for the death of the person.

In particular, in this case we are going to fix on the number of deaths by causes of Alzheimer's Disease, which as shown in the above graph, there are more cases of deaths of patients with Alzheimer's Disease among women than among men, but what about race?

If we present the previous data by specifying the race, separate these data between four categories of races, Hispanics; non-Hispanic whites; non-Hispanic blacks; the Asian and the Pacific Islands from, we can check the most affected by Alzheimer's Disease are non-Hispanic white women, followed by a block followed by non-Hispanic black women, Hispanic women, and non-Hispanic white men. In a third block with a low incidence would be the remains of patients.

To clarify a little more data are presented in the top mass data, amount of men and women, but separated by race. Which allows us to check that non-Hispanic whites suffer a greater number of cases of Alzheimer's Disease.

In a second block and almost no differences would be those of black non-Hispanics and Hispanics, being those who lower incidence, Asians and those coming from the Pacific Islands.

So if we are left only with this third graph we can say that Alzheimer's Disease, mainly affects non-Hispanic whites of any other race.

Although the results seem clear, must be borne in mind that it is an indirect population analysis, since there is no data direct from the number of Alzheimer's Disease patients, but only the people who have died for this cause, may exist patients who die from other causes, for example by an outrage or a heart attack that I would stay out of these results.

Similarly, the data reflect the number of total cases, but without taking into account the percentage of the population they represent, so if instead of being in New York, the data proceed from a Southern State where there is a greater presence of black US Hispanics and Hispanics, the interpretation of results would be completely different.

Heart problem, although the reasons for the occurrence of Alzheimer's Disease, are currently not known if some causes considered risk factors for dementia, such as cardiovascular disorders known.

It has been traditionally assumed that when a person reaches old age begins to suffer aches and pains of all kinds such as heart or Alzheimer's Disease, but are problems of the heart with Alzheimer's Disease related?

This is precisely what has analyzed a study conducted jointly by the University Ostrava and the Masaryk University in Brno (Czech Republic) whose results have been published in the Journal of Alzheimer's Disease & Parkinsonism [4].

The study involved 394 elderly people diagnosed with Alzheimer's Disease through the standardized questionnaire Mini Mental State Examination (MMSE) and 130 of similar characteristics and showing no symptoms of the disease. The average age of the Group of patients is 79 years versus the of the control group which is 73 years on average.

All participants were interviewed on demographic variables that defined them, as well as the risk of heart related problems.

It is of an epidemiological study, variables that are significantly correlated with Alzheimer's Disease, between patients and control is only reported.

Results reported that only Alzheimer's Disease is significantly related to cardiovascular diseases; on the other hand, they were not significant with diabetes mellitus, hypertension, or cerebrovascular disease. The results allow to learn more about Alzheimer's Disease, and the way of exploring it indirectly, since studying the patients of elderly with a history of cardiovascular disease, it is possible to discover new cases of patients with Alzheimer's Disease, that until have not received the proper diagnosis.

And not be diagnosed either have been included in the programs of treatment and training, which reduce the effects of this to the extent possible neurodegenerative disease.

It should bear in mind, that, if a significant relationship between two factors, this does not necessarily imply that one is the origin of the other, since there may be a third factor which intervenes and which has not been observed. As say the author's lack of a statistic reliable of the number of people affected in the population, it prevents to understand the evolution of this disease over the years, as well as to determine what other factors or variables may be affecting that currently it seems that cases of this disease are increasing.

This has been for a long time one of the main problems of dementia, and specifically on Alzheimer's disease, to the there be a record of cases at the national and international levels.

It is true that in each place they cater to patients who attend consultation in their relevant and specialized hospitals, but international organizations, only have evidence of estimates on the population affected by these neurodegenerative disorders, what it certainly hinders the advancement of research and therefore it entails detrimental both to patients and their families. Since, do not know the exact number of affected patients, nor the causes by which produce these disorders cannot be set concerning preventive intervention programs.

Some of what has been has since 2014 the Government of England, which has opened a project to determine the level of impact of Alzheimer's Disease among its citizens, hoping to discover a 60% more than patients not diagnosed previously.

Among the measures adopted has been the set an economic incentive for general practitioners and family for each new case of dementia diagnosed following the Dementia Identification Scheme (D.I.S.).

Continuing with the heart, indicate that there are several pathologies that may be included in this category of vascular disorder, such as hypertension, hypercholesterolemia (high blood cholesterol) or heart failure among others, all of them often require specific medication to facilitate blood flow, but the treatment can be complicated when these people suffering from cardiovascular disorders also suffer from other diseases like Alzheimer's Disease.

Although there is currently no cure for Alzheimer's Disease, there is on the market several medically trying to fight its advance, thus giving a longer quality of life to the patient, to slow down the development of this neurodegenerative disease.

He has been observed in previous studies, how certain medications there may be some impact on the efficiency of treatment of Alzheimer's Disease, stopping or damaging the beneficial effects of this, which facilitates the progression of the disease.

It should take into account, in addition, that the age of the patients tends to be high, so it is very important to adjust the medication so that it is as efficient as possible so you fight the advance of Alzheimer's Disease, both the specific cardiovascular disorder that each patient is suffering. Hence the importance of having some reference about what percentage of patients with Alzheimer's Disease who are also using drugs to treat cardiovascular disorders.

This is precisely what is find out from the Karolinska Institute, the University Stockhol, Karolinska University (Sweden) and International Center for Clinical Research Hospital and University Hospital of Santa Ana (Czech Republic), whose results have been published in Alzheimer Research & Therapy [5].

For the analysis of the data were consulted the national registration of the Government of Sweden, between the years 2007 to 2012 including 28.722 patients diagnosed with dementia, of which only entered the study 21.458 patients (58% male and 42% women) who specifically had the diagnosis of Alzheimer's Disease.

Results in this regard leave no doubt, more than 65 percent of the people who participated in the study are being were receiving treatment for some types of cardiovascular disorders.

The study points out a series of data without going to value them, those men consume more medication for the heart than women; people living alone to eat less heart medications; and that older age the consumption of these drugs increased.

As indicated by the authors of this study, this should be an important factor in establishing treatment, so that, in any case, one can adversely affect the other, and even if necessary to design drugs that satisfied both pathologies.

Add that the study does not assess what is the relationship between the two, apart from pointing out that cardiovascular disorders are a risk factor. Namely, if people suffering from cardiovascular disorders are associated with a certain type of personality, the type A, associated with high levels of competitiveness and stress, then one might wonder if people with personality type to have a greater chance of developing Alzheimer's Disease.

Suffering from diabetes, as risk factor, so that have type II diabetes significantly harms brain and facilitates the occurrence of dementia, especially that of Alzheimer's Disease.

This relationship despite having been proven, yet the mechanisms that explain it, may be a direct effect of elevated levels of insulin in the brain cells, or by increasing coronary problems of diabetes type II, that do have a direct relationship with the onset of Alzheimer's Disease are not known.

Head injuries, as a factor that can precipitate the onset of dementia, in fact, in sport, has been defined a type of dementia associated with these injuries, called chronic traumatic encephalopathy, more common in contact sports such as rugby or boxing, already known for some time as pugilistic dementia, where early dementia cases occur between the played with more than ten years in the profession.

The fat in the brain, as from the first moments had identified the presence of neurofibrils and senile as responsible for Alzheimer's Disease plaques, then found that the mere presence of these will not give as a result the appearance of Alzheimer's Disease, since it can be present in other illnesses.

So in addition to the neurobiological data, to establish a diagnosis should add the neuropsychological results that mainly assesses the person's memory abilities.

As they are, that are going to be present from the first moments of the symptomatology of disease expression, but they are not exclusive, these memory problems by other health problems can arise.

Also, the memory will only to be one of the many shortcomings that will present Alzheimer's Disease as it progresses, but is fat in the brain responsible for Alzheimer's Disease?

This is what is stated to have been found from the Center's research hospital at the University of Montreal (Canada), according to a statement issue, just where it mentioned that their results have been published in the scientific journal Cell Stem Cell [6].

The press release indicates that this was not the object of its investigation, since they were working with stem cells, trying to figure out why they were not active in the brains of mice with Alzheimer's Disease.

By chance found that next to cells mothers were fatty deposits, which had not been described in the scientific literature before.

After disposing of that it was a procedural error, they corroborated the results analyzing the brains of healthy mice versus those that suffered from Alzheimer's Disease, proving that fat was only within seconds.

This discovery allowed to analyze in depth the FAT to identify it using advanced mass spectrometry. Subsequently and to corroborate these results, and after knowing what they wanted, carried out a comparison post-mortem's nine brains of five of healthy people with Alzheimer's Disease.

The results obtained were reporting the same unusual accumulation of fat in the brains of people with Alzheimer's Disease. Although it is unknown the origin and the role played by the presence of these fats in Alzheimer's Disease, only that it is where it should not be, and that somehow you can explain the problem of the effectiveness of drug therapies used so far.

The researchers say that finding a new element until now unknown, can be the gateway to a more effective treatment, based on the Elimination of that fat accumulated in the brain.

If so, the method of treatment would be relatively simple, and pharmacological action, based on avoiding these accumulations of fat, and therefore delay the onset of Alzheimer's Disease, could even be implemented and if the case that this fat was responsible for and trigger for this disease, its regulation and control, would be definitely a way to prevent the disease so that it exists.

Hereditary factor

One of the most burning discussions among scientists is to determine what percentage of influence of the genetic aspects, compared the environmental case of mental disorders.

Although there is some documentation regarding this, which are even set different percentages, depending on the disorder that is appropriate, i.e. There is disorders and mental illnesses that have a higher percentage of genetics, from influence of inheritance from their parents, instead there are others who do not seem to be so involved with their genes, but by living conditions where develops as well as models that will be learning. There is still a great controversy in this respect, on the genetic role of them, since the study to adopt the percentages are going to be more or less high.

There is some level of consensus in terms of percentage, i.e. If in a population the percentage reaches 7% but only reached 4% in another town, normally refers to is around 5% of the world population, repeated these across different populations and at different times.

Some genetic studies suggest that you between 17-29% of certain psychopathologies can be explained by genetic variations common, that is, various psychopathologies as schizophrenia, bipolar disorder or depression, that share certain genetic characters between them.

A fundamental question when it comes to the design of specific interventions and treatments is to know the role that genetics in the emergence of this disease, as an intervention with gene therapy, to an eminently produced or motivated by environmental causes disorder would not make sense. Equally, a purely psychotherapeutic intervention may be unwise when disorder has a significant genetic basis, since it would not favour recovery if not that would be lost valuable time in a more appropriate and effective treatment.

One gets to talk about certain percentage of genetic cause, so who have immediate family members who have suffered from it, are two to three times more likely to suffer from Alzheimer's Disease. Being the most direct relationship insofar as it appears before the disease, i.e. in cases of Alzheimer's Disease early is an important genetic component, that is not found at other ages.

In the case of Alzheimer's Disease, if you managed to determine the percentage of the genetic basis, could design new drugs that genomic integration-oriented.

But if the main cause of emergence and development of this disease is due to environmental conditions, such as the place where one lives, what it eats, the level of stress that supports the person, the intervention should be, eminently such as cognitive, or neuropsychological, but what is the role of genetics in the development of psychological problems?

To answer this question is study a macro with 53.949 subjects, 30.919 women and 23.030 men, all of them are over 45 years old, excluding those who had some kind of dementia diagnosis. They switched to all individual tests of different test of any resolution, correlating it with their genetics.

In the study have involved authors from more than 100 research institutions and Universities scattered throughout the world, from Sweden to Australia, published in the scientific journal Molecular Psychiatry [7].

The study creates a genetic model with which to check predictions about the importance of genes involved.

The results show that chromosome 21 which explains a greater percentage of the variability involved in the maturation of cognitive abilities and their loss with age. Since all the psychological components have been the object of study, as a previous step to compare with new findings of patients with a diagnosis of dementia, and can thus determine the genetic influence in the case of normal aging to dementia.

Among the advantages of the study, as the authors highlight what is the large number of participants what has allowed to achieve significant results in terms of explanatory genetic model, something that is not possible to observe with a smaller number of participants. This genetic knowledge is expected to make designing new drugs and interventions aimed to conserve skills and cognitive abilities, regardless of the passage of the years, thus enabling a higher quality of life for as long as possible.

This study is a preliminary step to learn the basics genetic of the cognitive development of normal aging, i.e., one in which is not influenced by any psychopathology, if not produced by a decrease in cognitive abilities due to the natural passage of time.

Among the next goals of this multinational research team, is find the genetics of Alzheimer's Disease influence, once referred to how the decrease in cognitive abilities caused by the natural ageing of persons occurs.

Factor environmental

Previously partnered the origin of the disease with old age, aspect that seemed to have a direct relationship, so how many more years is had, wear and tear of the body, especially the brain and more likely to suffer from this disease. Today day joins more appeared processes related to environmental causes, mostly live in large cities and populations close to the facilities of a certain type of industry, called generically as environmental factors.

One of these such harmful factors is what is known as defined as the continued stress, oxidative stress mainly in the workplace what is source of weakening of the organism, reducing the defenses, which increases the occurrence of diseases.

Stress is a psychological element, where the person feels a continuous demand and above their abilities, which has a direct impact on the body, through the stress hormone known as cortisol, produced by the adrenal gland and that, if kept too long in the body, will facilitate the emergence of physical problems, including some psychosomatic illnesses would be, as in the case of ulcers.

Within psychotherapy, are usual techniques of relaxation, positive visualization and conscious breathing, aimed at providing the person enough tools with which to combat daily stress levels, and therefore to not reach trigger a disease in the body.

But the concept of stress is not only confined to the field of psychological, since a few years it has begun to use the term of oxidative stress, which makes reference to a cellular imbalance in the processing of oxygen, causing damage at the cellular level that leads to premature aging, and this facilitates the emergence of diseases.

Among the harmful consequences of oxidative stress, is associated with diabetes, cancer, cardiovascular disease and even Parkinson's. It is also associated with certain psychological disorders such as affective disorders, anxiety or power, and even schizophrenia. Also observed higher levels of certain addictive substances, especially alcohol and opioid dependence.

The origin of the oxidative stress is different, and sometimes difficult to achieve, depending on the standard of living, sedentary lifestyle, the level of anxiety of the people, but also of external agents such as radioactivity, or the Sun. Although the causes can be varied to produce oxidative stress, found that it is a poorer health-related.

One of the significant rates of the presence of oxidative stress is the level of plasma homocysteine, a sulfur amino acid considered to be one of the highest rates of neuronal cell damage, also related to vitamin B12.

One of the problems of Alzheimer's Disease is the differentiation of decreases in physical and psychological functions independent of age, since age entails a gradual reduction of skills.

Is for this reason that it seeks any index that is able to distinguish between the normal and the pathological, with which to establish a better diagnosis, but also to be able to design drugs that can slow the progress of Alzheimer's disease and can even reverse the effects of the disease.

One of the best candidates for this, is precisely the oxidative stress, since it is present in various degenerative diseases, then, is it related to the oxidative stress with Alzheimer's disease?

This is precisely what try to find out from the medical center of Mental health, Qingdao (China) published in BioMed Research International [8]. The study involved 40 patients with Alzheimer's disease without symptoms, 37 patients with a diagnosis of Alzheimer's Disease with symptoms behavioral and psychological, and as a group control 39 persons of the same age, but without the disease.

All they were a blood test to look for different levels of homocysteine in plasma, as a determinant of oxidative stress. The results show significant differences in the levels of plasma homocysteine among patients with Alzheimer's Disease compared to the control group, also patients with behavioral symptoms and psychological showed higher plasma homocysteine levels. These significant differences associated with psychological capacities decreased oxidative stress.

Results are important, but still is not sufficiently clear if these differences may explain the progress of the disease, in any way, it is a factor that must be considered when preparing a drug treatment that combat its effects.

By which it can be concluded, as they already pointed some previous studies that oxidative stress is significantly more present in Alzheimer's Disease.

Symptoms Alzheimer's Disease

It is important to know that the clinical setting is a distinction between symptoms and signs, when describing what happens to the person, and to establish the corresponding diagnosis.

One of the problems facing the health specialists when it comes to attend a patient is the diagnosis, since from this treatment, and the evolution of the disease is fixed.

So is equipped with "Tools" that they are going to provide information about what is happening in the body of the patient in physical diseases, but when it comes to mental illness, the diagnosis is complicated, since you cannot collect data "as objective" as in the previous case, there is still a clear underestimation of the psychological aspects in the hospital setting, as reflects it the distinction between clinical terms, signs and symptoms:

- Talk about signs to refer to an objective fact collecting the doctor, directly on the State of health of the person, as, for example, a small number of leukocytes in the blood, as a result of an analytical; alteration in the P waves according to the electrocardiogram; or the presence of "senile" plaques and neurofibrils evidenced by a computerized Axial Tomography (TAC). Then the signs are indirect evidence which must be performed by the doctor about the various indices showing the body.

Symptoms, on the other hand, are the subjective expression of a patient on a malfunction of your body. It would be tantamount to the complaints or complaints expressed by the

patient about his illness; as well as the perceived intensity of discomfort or pain. It is the first thing that assesses a physician upon entering a person inquiry by asking, what do you?, what has brought you here?, once collected impressions of the person, the doctor usually delve into such symptoms, with questions how, from makes as soon as that happens?, these annoyances would define them as painful or Disabling?

To complete the record, to determine whether the person suffers from a clinical picture, the value of the signs is decisive, front of the symptoms, which are taken into account as evidence to explore, without diagnostic value for themselves.

Psychology despite being a relatively young science, with little more than 100 years of development, has found his studio space precisely in the field of the subjectivity of the person. The thoughts, emotions and personal experiences, are the scope of work of psychology. Specifically, clinical psychology, is responsible for disorders of thoughts, emotions and behaviors of the patients. The symptoms in this field play a key role, both in diagnosis and treatment of mental illnesses.

Medicine focused on diagnosis, prevention and treatment of diseases, mainly of biological origin, has improved various techniques of diagnostics of the hand of the technological advances, such as magnetic resonance imaging (R.M.) or Tomography by Positron Emission (T.E.P.).

Also in regards to the intervention, ranging from primitive potions and ointments, originally used to try to give the body time to recover from an infection; until you reach the more current, such as laser surgery and treatments noninvasive radiofrequency.

Clinical Psychology, for its part, has developed a variety of assessment techniques, ranging from first semi-structured interviews; passing through projective tests, perhaps the best known is stains test known as the Rorschach Test.

Until you reach the current psychometric tests, validated and standardized for target populations; equally and once established early diagnosis, the psychologist has at its disposal, a range of therapeutic intervention techniques, depending on the mental disorder to be treated, and can be applied individually or in group, and being cut more cognitive, behavioural or relational.

Currently groups of diseases such as dementia, are studied both from the medical aspect, such as psychological, which is characterized by a progressive loss of skills, mainly cognitive due to a neuronal deterioration. Although the best known of these is Alzheimer's Disease, whose most striking element and that is usually recognized by a progressive loss of memory.

There are, in addition, to make a new distinction between the positive symptoms and negative, is not of rating them as "good" or "bad", any of them is indicative that there is a health problem in the person and therefore they are all rated as "bad" to be negative for the normal development of the person's life:

The positive symptom, is defined as one that appears when it is not expected to appear in a healthy person of the same age, for example, in the disease of Parkinson's, a positive sign would be the presence of tremors, something that does not occur in a person with Parkinson's.

Negative symptom, on the other hand, is defined as the absence of an ability or skill which are found in a healthy person of the same age, for example, a negative symptom may be the absence of speech, in the case of a person who has suffered a traumatic brain injury disorder as a result of a fall and the resulting blow to the head somewhat present in a person of his age.

It is important to stress that the distinction between positive or negative is always compared with people of your same age, since there are symptoms that may be present or absent, at certain ages and not in others.

Positive symptoms do have to suspect the presence of Alzheimer's Disease:

Appearance of gaps of memory in the memory closest, forgetting recent conversations, because it initially affects the short-term memory, prelude to long-term memory. If you have bugs in the short term, we are not able to new learning, i.e. you cannot remember what we ate yesterday, or if we have already gone to the purchase.

Mental slowing may be seen to resolve mental tasks more slowly.

Misplacing objects or forgetting appointments and important dates, which in later stages of the disease can lead even to the inability to recognize people before, while familiar.

The presence of any symptoms when they shouldn't be, is indicative that something doesn't work correctly, and is the specialist who must analyze in depth the case for diagnosis.

Negative symptoms do have to suspect the presence of an Alzheimer's Disease:

The lack of completion of work requiring several steps followed. As for example make the meal, in that the process is interrupted and is not known to follow, also if the person goes to a memo to the supermarket to buy something, if it is interrupted by the way, you lose completely the notion of where I was going, or what he would do, which causes him great confusion and irritability.

Difficulty to perform more than one task at the same time, when previously Yes could do it without any problems. Shows of the limitations causing you the advance of Alzheimer's Disease.

Moreover, although it is not a symptom of the patient, occur on a regular basis complaints by relatives concerning the lack of memory, which must be taken into account to determine must be Alzheimer's Disease, because as spreads the disease will be most evident these complaints and consequent concern that will result in people live with that.

While these symptoms can occur from the first moments, to be more and more evident as advancing Alzheimer's Disease, when this has spread, may cause specific symptoms that had failed before:

Problems related to communication, whether in speech, understanding or reading tasks.

Disorientation, without knowing where he is, how has come up there, or where was heading.

Confusion of facts past with the present, since the process of recovery of the stored information does not work properly to be affected the neural structures that maintain it.

Problems to identify relatives, and when it is more advanced, more everyday objects that surround him, losing not only the ability to call them by their name, but also knowledge about what they are, what they are or how to use.

It must be borne in mind that these symptoms may be due to other types of problems already are neurological or other such as depression, therefore, is the work of the specialist discover the origin of these signals for a correct diagnosis.

In addition, you have to know that sometimes Alzheimer's Disease does not cause any type of external symptoms that this evidence, and may be discovered unexpectedly to undergo medical tests for other neurological reasons.

That is why it is advisable to find out if you are within the so-called risk groups, people who, by their family history, having suffered from Alzheimer's Disease or because of his age, or cardiovascular disease are more likely to manifest them this disease.

If it is inside any of these groups, it is suitable to be put to speech with your doctor, so that advice on the periodicity of the tests to be carried out, as well as changes you should incorporate into your life to delay the possibility of its appearance. If disease “gives the face”, until it has spread is not possible there is a multiple condition, sometimes with symptoms apparently not related, which might hamper the diagnosis. Sometimes we tend to downplay certain symptoms, for thinking that its origin is the product of a lesser evil, such as the one caused by the seasonal depression, but when in doubt, it is convenient to carry out the appropriate tests, provided that so the doctor recommends.

Do You Know That The Hallucinations Can Occur In Dementia?

When one thinks of dementia, tends it to do mainly on Alzheimer’s Disease, and its most striking and characteristic feature, the progressive loss of memory. But there are also other dementias, which share characteristics such as age of onset, which are neurodegenerative, and currently there is no cure for them.

One of the most serious devastating, both for the patient and for relatives, is dementia with Lewy bodies.

The severity of the dementia, is not only due to the great diversity of symptoms that will present the patient, if not to the presence of some characteristic of other diseases, such as tremors, muscle stiffness, also termed as parkinsonian symptoms, and it can also occur with hallucinations, that occurs between 50 to 70% of patients.

Something that in other dementias is not observed, and which could be understood characteristic of another type of mental health patients, such as patients with delusions or those suffering from a disorder of schizophrenia, but if already news of the presence of hallucinations are currently, did not know what as they occurred.

This is what is precisely determined from the Hospital Universitario Strasbourg (France) whose results have been published in the scientific journal completo Alzheimer’s Disease Research & Therapy [9].

The study involved 66 patients, 36 of whom had suffered hallucinations, opposite the 30 remaining that would act as a control group. The first group also assessed the level of severity of classified hallucinations go, illusion, hallucination, visual, simple and complex visual hallucination. Used various measures and neuropsychological tests such as the Mini Mental State Examination (M.M.S.E.), as well as Free and Cued Selective Reminding Test (F.C.S.R.T.) to assess memory, the Frontal Assessment Battery (F.A.B.), Test in the stroke (T.M.T.) and the evolution of formal vocabulary and semantics to evaluate the central executive; the breadth of digit test to evaluate working memory and proof copy and memory Rey-Osterrieth Complex Figure Test for the evaluation of functions visoconstructivas.

In addition, records of emission tomography were included by photon only, called in English Single Photon Emission Computed Tomography (SPECT) to observe the functioning of the brain.

Results show a differential activity by subtracting the results of the group with hallucinations less group control showing less activity in the left side of the brain, specifically in the anterior Cingulate Cortex and the orbitofrontal cortex and the cuneo.

Being particularly beset the decrease to the increase in the severity of symptoms in Visual areas of the cortex in anterior Cingulate, the left orbitofrontal cortex, parahippocampal gyrus of the hippocampus law, the inferior temporal cortex and the portion of the cuneiform script of the occipital lobe of the brain in its inner side left.

This discovery enables better understanding of how the phenomenon of hallucinations in these patients, what they lack is still to establish a theoretical model in this regard, for

power so try to find some kind of preventive treatment that helps people with dementia to reduce the presence and impact of these hallucinations, which goes to the detriment of their own mental health and in the coexistence of with their families and caregivers.

Up to this point has been raised about what the person is able to inform in consultation when asked about what happens, it will say what you can realize and manifest, what symptoms serving specialist to start its exploration, are deducted with an emphasis in finding out what is causing this symptomatology.

Concerning remember an anecdote about a comment that always a doctor specialist in this matter, he said that it was able to know if a person of advanced age was potentially an ill Alzheimer's Disease or not in the first query.

If it was the person that approached inquiry complaining of a lesser ability to perform tasks that previously worked without problems, and a reduction in their ability to describe events in the past, and even the previous day, in this case the specialist knew that it was a normal result of the passage of time, "aches and pains of age".

On the other hand, if it was the woman or the daughter who brought to query their husband or father, who complained of continuous forgetfulness, that did not end what started and that increasingly gave more problems of coexistence, which the person most denied that she was happening that which created narrated about his behavior.

In these cases, the doctor with regret stated almost with certainty it was a problem as important as it was Alzheimer's Disease. In both cases, and while symptoms were very similar, specialist passed them by relevant evidence to corroborate his "suspicions" that gave peace of mind with the diagnosis to a person who had gone to consultation, looking for signs, which are evidences that the physician obtained through mechanical and technological methods to do so.

There are many and very different symptoms that can give notice that something is not working well in the organism, since Alzheimer's Disease impairment may develop in any aspect of our daily life, a reflection of the loss of memory.

So the best system that is there to detect early onset of Alzheimer's Disease is underway the appropriate examinations, attending the consultation when suspicion that something is wrong with your memory, to make professional who reassure us by ruling out disease or tell us that we should start treatment.

The sooner you start this, more likely to maintain the functionality of the memory for longer, shall be taken as the patient it will cost you less work it and verify the positive effects.

Alzheimer's Disease is a serious illness, with important consequences in everyday life and in social relations, as we will see throughout the book, so it is convenient to perform appropriate tests for greater peace of mind. The information about what happens to us we should not cause any fear, but on the contrary, we should release, as with it we will put name to what they have, which will facilitate the work of the specialist when it comes to advice on how Act.

Below, is a table on the main symptoms of Alzheimer's Disease, by comparing major manuals of diagnoses of mental health: the International Classification Of Diseases (ICD-10) and the diagnostic and Statistical Manual of mental disorders (DSM-V):

Once you have timely information, even after consulting with another specialist for a second opinion, the suitable decisions, can know that the ultimate goal is to reduce the effects of the disease on daily life, as well as that develops as slowly as possible.

To do this it is important that the person has with the couple or a family member accompanying you to the consultation and to take relevant tests, ensuring you feel

accompanied, since, in those first moments of uncertainty, restlessness and nerves may affect the patient's health.

Must be taken into account that the diagnosis will not worsen the disease, but that only going to put name, by which both the patient and their family members will be able to know what you have, if it is part of the normal loss caused by age, if it is the product of a disease, and should be if it is one as important as it is the Alzheimer's Disease.

Signs of Alzheimer's Disease

In the case of Alzheimer's Disease, the most obvious sign is the presence of neurofibrils and tangles in the brain, a crucial aspect of the disease, the problem is that these signs had traditionally been observed by removing the analysis of brain post-mortem, so it wasn't as diagnostic method, or to determine what is the best treatment for the patient who suffers it. Currently, thanks to neuroimaging, it is possible to evaluate live brains to check if this neurofibrils accumulation occurs.

It must be clarified that the presence of presence of neurofibrillae in the brain will not necessarily imply that the person is suffering from Alzheimer's Disease, since it is not exclusive of this disease, and, on the other hand, that this accumulation does not occur, it does not appear Alzheimer's Disease, so it should be considered an important indicator, but that has to be consistent with the outcome of the rest of the tests to establish a relevant diagnosis.

Therefore, many efforts in trying to get the signs in living patients, i.e., direct measurements of the body extracted through the use of medical equipment, specialized, such as so-called biomarkers, or biological markers which, if they can be found in the early stages of the disease, would facilitate the diagnosis even before the first symptoms of memory loss were being performed.

This is precisely what is trying to find out by a study conducted by the University of Giessen (Germany) published in *Advances in Alzheimer's Disease* [10].

Within the possible biomarkers will try to confirm as the most effective for the detection of the disease of Alzheimer, the author of this study has opted for a spectral analysis of the Electroencephalogram (E.E.G.), that is, of the registration of brain electrical activity, are separated according to different bands, Alpha, beta, theta and delta.

The study involved 89 people, which was assessed through a standardized questionnaire DemTec to set the level of mild cognitive impairment, according to the results of this questionnaire separated subjects between high and low levels of cognitive impairment (45 and 44 subjects respectively). Similarly, administered a test standardized on care.

All they posed as four experimental conditions, one in relaxation (to compare), one making a concentration test, another performance of calculation and a fourth in memory, for five minutes each.

Results show differences in delta and theta in the prefrontal electrodes (F7 and F8) as well as the fronto-temporal (T3), especially significant was the result in wave theta task of care, to compare between the participants of the high to low mild cognitive impairment group.

With what, according to this study, is enough to employ an Electroencephalography (E.E.G.), a test that does more for five minutes, and a spectral analysis of outcomes, these three electrodes F7, F8 and T3 for early if the patient is beginning to suffer Alzheimer's Disease, much before the first symptoms become evident.

Currently this issue is receiving lot of dedication by researchers seeking to check different biomarkers, which serve for the early detection of disease, trying to even get it until the first obvious symptoms of the disease occur.

Since it has been estimated that when the person already shows positive and negative symptoms, has been suffering in silence disease between 10 to 20 years. Weather in which it could have intervened if determining signs of Alzheimer's Disease are known, but how is the detection of Alzheimer's Disease?

Alzheimer 's disease medical tests

Then discussed the most common medical tests used for early detection of Alzheimer's Disease, with the sole intention of that, if you have to undergo any of them, know in advance what is each test.

Some can be known or at least have heard before and others instead ignore them completely, but with all of them seek to establish the appropriate diagnosis to know what happens to the patient:

Tests of cognitive competence, which evaluates different areas such as visual perception, orientation, performance with simple math, language and memory tasks.

Neurological tests such as Magnetic Resonance Imaging (MRI) or Tomography Of Emission Of Positrons (PET), studies by which the shape and structure of the brain tissue damage can be detected.

Analysis of blood or urine, to rule out that the symptoms are due to other diseases.

Your doctor may suggest performing any of these tests or others, based on their age range or some data such as their personal history or family member who can give evidence found in people with risk of a certain type of Alzheimer's Disease.

These tests may be recommended to be done even without that has appeared no symptoms related to Alzheimer's Disease and of course when they are present, to establish a diagnosis clear for to perform the subsequent therapeutic intervention to alleviate as far as possible that of progressive health terioro.

It should take into account that these tests are just the first to which the person will be subject if signs of neurodegenerative disease are, as she is confirmed, you have to make a complete examination where to check if it is against Alzheimer's Disease, as well as to determine what stage is. Once the diagnosis is established, is will be repeating such tests to check its evolution as the treatment unfolds.

It must be taken into account that as it was on the discovery of new drugs to combat Alzheimer's Disease, every day they are developing and improving diagnostic tests, looking for are more sensitive, to enable to detect the disease as soon as possible. Just design a test by the Northwestern University (USA), published in the scientific journal Neurology [11]. you are trying to establish between the different types of dementia diagnosis, based on the ability to identify and name pictures of famous people.

To do this we studied 60 volunteers over the age of 60 years, half of whom were patients diagnosed with aphasia, primary, a type of early dementia, against other healthy. In the study, they looked for correlations neurophysiological which avalasen the test, finding differences between the two groups of participants in the task of recognizing faces of famous.

The advantages of this study are that a test as simple as the see images on the screen, it is valid to detect early symptoms of dementia in young people between 40 and 65 years.

Diagnosis of Alzheimer's disease

Although it does not occur in all cases, yes in most usually arise Alzheimer's Disease at advanced ages, usually about sixty years, which will hinder early detection, since at that age also will begin to present deficiencies or "attacks" of the age.

In addition, one of the major difficulties with regard to the early detection of this disease is that in its early stages it evolves almost silently, showing no evidence until it is advanced.

It is therefore the need for a diagnosis early so insofar as possible you can design an action plan to slow down the progression of the disease in the absence of the development of more effective treatment that may alleviate it.

Discovering that a patient suffers from Alzheimer's disease tends to come from a thorough study looking for the causes of apparent deterioration of memory. This study can be both motivated by the person to be struggling to develop a normal life, as by their closest family which tend to have repetitive complaints about his memory loss.

But there are cases, especially when it's younger people or in previous stages of the disease, in which symptoms are not so obvious, and the news can be reached without prior warning, clear that some symptoms may be present, but we have not given enough importance, because who doesn't have memory leaks?

It is just expected when the disease is advanced, and their effects on memory and daily life are so obvious that you can do to suspect the existence of Alzheimer's Disease. As Alzheimer's Disease has been spreading, the success of the intervention to slow its progression, will go to be smaller.

Due to which, since the medical sectors it is recommended to conduct reviews periodically, especially when they begin to have suspicions in this regard. As when before you discover the presence of Alzheimer's Disease, before can be established a plan of action to slow down its evolution or retrain the brain to alleviate the affected areas, according to the case.

He is currently working with neuroimaging techniques with the aim that through these can detect Alzheimer's Disease even early in its formation stages, even when the first symptoms have not occurred in the person.

One of the most important investigations carried out in the field of the fight against Alzheimer's Disease as it is about the early diagnosis to be able to intervene.

Although there is currently no cure for Alzheimer's Disease, efforts are being made to stop the evolution of this disease neurodegenerative, that with the passage of time to causing an increase in dependence on the person going losing their cognitive abilities. This arrest seeks to perform from the psychopharmacology with the design of new drugs and from Neurorehabilitation dealing that the patient keep much as possible their intact abilities, and create new routes using alternative strategies to make the final function is not affected.

Although the main deterioration occurs in the memory, it is not the only function that is going to be affected with the progressive advancement of the disease, to deteriorate both reaching the part motor, language as to the behaviour of the person, but for some time has been observed to be detected as soon as possible disease, when you experiencing early symptoms such as frequent forgetfulness changes of denomination, spatial disorientation, and emotional lability (with sudden mood swings), before to intervene and this is going to make the patient more likely to enjoy a better quality of life despite the disease.

One of the most significant difficulties in establishing a diagnosis is do it according to the first symptoms of the disease, since to be these so slight can go unnoticed to the untrained person.

Such is the case of neurodegenerative diseases, where early symptoms of Alzheimer's Disease can be easily confused with a decay of the age, especially when they appear from the age of 50, where already in itself produces a gradual decline of motor and cognitive functions in the person, being this reduction greater than measured that increase the years.

When Alzheimer's Disease occurs at an early age, about 30 to 40 years, called early Alzheimer's Disease, is more evident that the first symptoms of Alzheimer's Disease do not

match expected of a person of his age, what arouses greater concern among family members and the patient to claim inquiry, and thus to more quickly diagnose this disease.

This allows you to start as soon as possible with treatment and therefore, to the extent possible slowdown the progression of the illness at the same time who trains the patient in Neuropsychological techniques to compensate for deficiencies that will go on suffering, and thereby maintain the longest possible levels of performance of their duties and personal autonomy, which preserve their quality of life for longer.

The problem is that this early detection only occurs in 5% of cases of Alzheimer's Disease, which is what it is estimated that they have early Alzheimer's Disease, in the rest, the effects of age going to cover up the first symptoms of Alzheimer's Disease by making this disease develops silently without receiving any type of treatment, then, how to distinguish the first symptoms of Alzheimer's Disease from normal aging?

This is precisely what has been studied from the University of Oxford (England) and the University of Cape Town (South Africa) and the laboratories of Merk (USA), whose results were published in the journal *Advances in Alzheimer's Disease* [12].

So they designed a study to analyze one of the most obvious features of Alzheimer's Disease, deficiencies in memory, trying to distinguish between the decay of the age of real involvement by the first symptoms of Alzheimer's Disease.

91 elderly people participated in the study with a higher secondary to the 80 years, of these 31 was healthy, 20 had deficiencies in memory not associated with Alzheimer's Disease, and 19 were diagnosed with Alzheimer's Disease.

All participants were administered tests standardized psychometric complete Alzheimer's Disease Assessment Scale-Cognitive subscale (ADAS - Cog), the Cambridge Automated Neuropsychological Test Battery (C.A.N.T.A.B.); the Paired Associate Learning (PAL). In addition to the Functional measures included the Alzheimer complete Disease Cooperative Study-Activities of Daily Living (A.D.C.S.-A.D.L.) and Everyday Memory Questionnaire (EMQ), all of which are used to analyze different skills of personal performance in daily life, paying special attention to memory.

Significant differences were found when comparing groups with problems of memory, compared to the Group of healthy elderly, while most affected patients with Alzheimer's Disease. Differences that are starting to observe the central executive (that which enables us to make plans and set them up), as well as different areas of memory as semantic memory (you remember the name of objects) or the visuospatial (which we use to find out where we are and how things are called).

Being particularly affected episodic memory (that in which we keep our personal memories and helps us to know what has happened in the past), being without affecting significantly the working memory (which helps when it comes to perform a task).

The study allows a greater understanding, on which areas must be explored, in order to detect early symptoms of Alzheimer's Disease, against what would be a normal aging and even one where should some capabilities of the affected memory, and all this using standardized questionnaires that already exist and are available to specialists.

An in-depth analysis of the episodic, memory related to the events that occurred in the life of the patient, times, places, people who knew, so according to the study, the best index for early detection this deterioration caused by the first symptoms of Alzheimer's Disease.

Equally and following this line overcome one of the most important "problems" in dealing with Alzheimer's Disease that is usually detected "late", this is, when the signs and symptoms are so obvious, that the brain damage that produces them is very advanced, hence the importance of the development of early detection techniques, allowing to start

as soon as possible therapeutic intervention, which still fails to reverse the effects of the disease, but yes to slow it down and even stop it for a while.

New investigations allow hope regarding this field, seen the results achieved, this article will discuss two of the most recent advances:

-The first comes from the hand of the State University of Ohio (USA), who have developed a free access test called Self-Administered Gerocognitive Examination (SAGE), whereby any person can perform a series of tests to determine if there is evidence of cognitive impairment home, representing a breakthrough in terms of access free tests because provides an index of early detection It warns you if something is not going well, and thus go to the specialist to realize it is a problem and if so, see if we need to launch a specific treatment in this regard.

Consisting of 22 questions test has been validated by 1000 volunteers from approximately 50 years and resulted in the detection of 4 of every 5 cases with mild cognitive impairments. Proof that self-healing in 15 minutes is certainly a breakthrough, since anyone, at any time can test their cognitive abilities and check what such are.

-The second, conducted by the University of the North Texas (USA), published in the journal *Dementia and Geriatric Cognitive Disorders* [13].

It is the development of a biomarker, i.e. an analytical test which know the presence of the Alzheimer disease, unlike other previous studies of biomarkers, not attempts to correlate directly with Alzheimer's Disease but it does with standards tests used for the detection of this disease, i.e., other studies of biomarkers seek and scan, signs of markers as substances in the blood, the brain volume,... that can give signs of the disease; on the other hand this study, part of that detection Neuropsychological instruments are sufficiently validated, so searched the correlation between these and biomarkers through complex algorithms.

This study involved 197 patients with Alzheimer's Disease versus the same number without the disease. The results allow for biomarkers that correlate with proofs Neuropsychological, in a way that can be replaced these by a simple "prick", the way they do diabetics, and that drop of blood to determine if he suffers or not Alzheimer's Disease.

The study tries to "make a detour", without going to assess for signs of the disease, just staying in that through this blood analysis system are obtained the same results using the standardized battery of Neuropsychological tests.

I think that they are two great contributions that allow to have hopes of early diagnosis techniques using non-invasive, and which provide quick and reliable information, which exceeds by far the evidence that so far have such as biomarkers through genetic testing.

Treatment Alzheimer's disease

One of the biggest problems associated with Alzheimer's Disease, is that he is a chronic neurodegenerative disease, i.e., if the disease is not nothing going to go slowly, evolving affecting more functions and areas of the brain.

That is why, in the absence of a cure for this disease, scientists have been working to stop these developments, so to offer "more time" to the person, who, accompanied by a disease specific Neuropsychological rehabilitation, it can offer also better quality of life.

Efforts to reduce the progression of the disease have been made both from pharmacology how by the design of interventions Neuropsychological, where it tries to teach strategies that offset losses caused by the disease, mainly strategies of memory that allow the patient to lead independent lives and the most normal possible. One of the most important difficulties that exist with the neurodegenerative diseases as Alzheimer's Disease, is to have a treatment that offers good results.

Despite the efforts made, and at the expense of that in the near future be achieved some considerable success in this field, the effectiveness of treatments is very limited to this disease.

First of all, because it is usually detected in phase already consolidated, which designed Pharmacopoeia effect has reduced efficacy, that it might be if I could be detected in early stages.

In addition, factors that serve to prevent the disease are unknown, it is true that there are data in this regard, but they are not conclusive. This is because still are not clear the exact causes of its appearance, so it is not possible to determine an index that serves to fight this and to both prevent the disease.

Drug treatment is indicated as accompanist of the disease, in such a way that go as far as possible delaying the advance of this.

Part of this pharmacological treatment that fights mainly to neurological level in the brain, have been shown to a fairly effective method conducive rehabilitation therapies applied in centers by qualified professionals.

Try these therapies designed by occupational centers, of revitalize brain activity and establish new routes within itself, in order to access the memories using other memory strategies, with people wading the problem.

This is able to regain part of the memory that until that moment had been lost by disuse or simply by the lack of attention, in the early stages of the treatment give the impression that you retrieve the memory completely and even has more memory which had enjoyed for years.

But it is not more than a strategy that reduced the evolution of the disease, so it must be a continued effort to make this strategy have effectiveness and not to be missed for lack of use.

Despite the developments with regard to treatment today is still investigating both from the psychopharmacology, trying to achieve “cure”, as seeking to promote better quality of life, exploring therapies that were not initially intended for this population, as it is the mindfulness, a technique also called mindfulness, is where trained attention and concentration through relatively easy to implement exercises, but can be used successfully mindfulness for the treatment of Alzheimer’s Disease?

This is what is determined from the Northwestern University (USA) published in American Journal of Alzheimer’s Disease & Other Dementias [14].

The study involved 37 persons among patients diagnosed with Alzheimer’s Disease and their caregivers, all they were given a questionnaire before and after applying the technique of mindfulness for eight weeks, about 90 minutes per session. What “tasks” was added to perform individually guided by a 30 to 60 minutes CD.

A comprehensive evaluation with eight standardized questionnaires, the first to evaluate the quality of life, called Quality of Life (QOL-AD); the second and third of them assessed mood and in particular the presence or not of depressive symptoms with the Geriatric Depression Scale (G.D.S.) and the levels of anxiety with the Beck Anxiety Inventory (B.A.I.). the fourth assesses the subjective quality of sleep, called the Pittsburg Sleep Quality Inventory (P.S.Q.I.), the fifth assesses the capacity of attention which is one of the objectives of the mindfulness training through Trail-Making Tests A and B; and finally evaluated various cognitive capacities through the Repeatable Battery for the Assessment of Neuropsychological Status (R.B.A.N.S.).

The results were only significant in terms of a better assessment of the quality of life of the patient, a reduction in the symptoms of sleep and a greater subjective sleep quality.

Is not producing any significant benefit, to combat the difficulties of Alzheimer's Disease that put at risk the independence of the person as the disease progresses. According to this study, the mindfulness technique gave results positive but insufficient for this type of disease, so together with other technical neuropsychological and even pharmacological approach is required to stop the progression of the disease, in such a way that its effectiveness will increase and that help the patient to stay as long as possible a good quality of life.

Good is that the patient's attend day centres?

If it were a normal aging, families are more aware and prepared, knowing that the elderly requires certain level of care, but also of autonomy which allows you to get out and interact with other people especially with people his age, and this tend it to do especially in day centres, prepared and enabled to offer various services, that entertain and join the largest, but also to train them and treat them as possible maintain the longest time possible its capabilities and skills intact.

Is undeniable the benefits of socializing and even a little exercise, even rehabilitation in the general health of the person at any age, but also in advanced ages, but it is good to Alzheimer's Disease patient to attend day centres?

This is what is find out from Institute technology of the University of Ontario (Canada) whose results have been published in the scientific journal Journal of Medical Research [15]

The study involved 130 elderly people, of which 57 were suffering from Alzheimer's Disease, not having this disease remaining users of the day center where this research is carried out.

Of the 57 patients of Alzheimer, 28 were users of day centres, while the remaining 29 were not all participants were given a standardized questionnaire to evaluate their quality of life, through the Quality of Life (QOL), which has been useful also for people suffering from dementia.

Significant differences among users of day centers, were not Alzheimer's Disease they might have or not. On the other hand, we found significant differences between the patients that came and those who not came to day centers, being significantly worse quality of life among those who not came.

Are bots good for the treatment of Alzheimer 's disease?

In recent years, thanks to the advancement and expansion of technology have developed programs or apps to automate some of the tasks that are performed with the Neuropsychologist in Neurorehabilitation.

Equally, and from other branches like engineering they have tried to bring their progress in the improvement of the quality of life of the patient, as it is through robotics, which become real automated assistants that incorporate programs that encourage patients with Alzheimer's Disease, but bots are good for the treatment of Alzheimer's Disease?

This is what tries to find out from the Toronto Rehabilitation Institute, the University of Toronto and the University of Massachusetts Lowell, presented at the 5th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT) and published in the proceedings of the Congress [16].

The study involved 10 people, 6 women and 4 men, over 55 years of age diagnosed with Alzheimer's Disease.

Participants received a tele-assisted robot, with a screen capture incorporated, where appeared different messages aimed at the treatment of Alzheimer's Disease, these were small tasks that they should play the patients, common in Neurorehabilitation.

In addition to reading the on-screen instructions were read by the computer via a Text-To-Speech Program (T.T.S.).

He was an assessment prior and subsequent to the implementation of the robotic Assistant, to test its effects in one of the factors affected by Alzheimer's Disease as it is the language, in particular with regard to speech recognition. It was observed a significant increase in voice recognition, both in short sentences long, drawn after an interview to patient and their caregiver.

How effective is the treatment of Alzheimer's Disease?

Evaluate and enhance the effectiveness of the treatment of Alzheimer's Disease has been one of the most worrying issues from family, researchers and health workers.

There are several commonly used drug treatments, which allows the health care professional to find the most appropriate for each patient, but to carry out this, have ruled out most of the medicines designed by shown low efficacy and even counterproductive by its hepatotoxic effects, i.e., adverse effects caused by the medicine, damaging the brain or some functions of the patient.

It is no doubt that drug treatment is insufficient, if it is not complemented with Neuropsychological intervention, where trains the patient to keep the largest number of possible cognitive abilities and skills, and to replace those that have been lost by the time both for the disease, through the learning of new cognitive strategies.

Apart from the undoubted need to intervene pharmacologically, there is some controversy as to the effectiveness of each drug, as previous results have determined that 30% of cases, are valid only around while the health professionals who work daily with these patients, estimate one percentage higher, as personal perception, but to what extent are effective Alzheimer's Disease treatment?

This is precisely what has tried to answer from the University of Toronto, McMaster University, Ontario brain Institute, the Centre of the Sunnybrook Health Sciences, the unit of research Neurology cognitive L.C. Campbell and the Canadian Association for the recovery of stroke (Canada), published in Alzheimer Research & Therapy [17].

Of the main treatments for Alzheimer's Disease, researchers focused on analyzing the effect of medications focused on the cholinergic hypothesis for a period of two years, discarding the effects of treatments based on the glutamate hypothesis for future research.

The study involved 130 Alzheimer's Disease patients with mild to moderate disease levels, according to assessment with standardized cognitive skills questionnaire called the Mini-Mental Status Examination (M.M.S.E.), half of them receive treatment based on cholinergic agonists and the other half did not receive it.

Three measures, the first at the beginning of the study, the second year and the third, at the end of second year were.

The results indicate how significantly positive effects are already observed from the first year of treatment, in global cognitive functions from evaluation through the specific questionnaire on dementia called Dementia Rating Scale (D.R.S.) and the M.M.S.E. and functions visuospatial evaluated through standardized questionnaire of the Rey-Osterrieth Complex Figure Test King-Osterreith complex figure test.

The two years of the study also shows how even care and monitoring of complex verbal and Visual instructions, capabilities remain aspect that participants who did not receive this medication have lost

The authors of the study claim that the results support indirectly to the cholinergic hypothesis in Alzheimer's Disease, since your treatment mitigates the negative cognitive effects of the disease.

Despite the small number of participants results over time are consistent with previous research, although not reported the percentage of treatment efficacy, to know if it is within 30% expected or not.

Is the use of opioids frequent before Alzheimer 's disease?

One of the most unknown realities of Alzheimer's Disease patients is pain that experience and that in some cases they should be treated with opioids. Pain serves as a signal to the body to indicate that something goes well, and that should remedy, but when the pain is no longer performing its function of signal, and becomes part of the patient's life becomes a nuisance that has to be treated with opioids.

There are many possible causes for the pain, which is associated with injuries and shock, but also age, since joints and muscles is resented with the passage of time, this makes that the elderly are particularly sensitive to pain, and that a pharmacological intervention is required to maintain controlled its effects, as is the case with the use of opioids, but the use of opioids is frequent before Alzheimer's Disease?

This is precisely what has tried to find out from the University of Copenhagen, the University of Aarhus and the Lundbeck Foundation for integrative initiative of psychiatric research, iPSYCH (Denmark) whose results have been published in the journal Alzheimer's Disease & Dementia [18].

The study involved 35.455 patients diagnosed with dementia face 870.645 without dementia, all of them over the age of 65 and resident in Denmark.

In the Group of patients with dementia have been excluded to 2.318 by have been diagnosed with dementia before the age of 60. The patients were classified in two situations, living in residences or in their homes. The results show that patients who live in homes most frequently consume opiates (41%) versus those that live in your household (27%), and both groups more than the elders of the same age without dementia (20%).

The authors also come to assess the co-morbidity of dementia with other pathologies that may be cause and origin of pain at this advanced age as it is suffering cancer, osteoporosis, arthritis, diabetes, kidney or lung, heart, liver problems but then do not use this data to perform any comparative analysis with the suffering of dementia, or the consumption of opiates.

Although authors do not enter to distinguish between different types of dementia include Alzheimer's Disease, the results are directly applicable to this disease since it serves to understand the magnitude of the problem of the coexistence of the treatment used with opioids for pain management.

Is there a vaccine to treat Alzheimer 's disease?

One of the difficulties in dealing with Alzheimer's Disease is to determine "where to start" due to the large caused neurological injuries.

There are several ways of working for the treatment of Alzheimer's Disease, looking first for the detection of the advance of this neurodegenerative disease, providing a greater amount of time to the patient, also are testing and developing drugs that compensate for the deterioration of the disease, which offer a better quality of life the patient thus reducing the dependence on this subject.

In this regard, there are various medications depending on what aspect of the decline to intervene, since the effects extend both at the neuronal level, to see is how neuronal tissue shrinks showing large ventricles, both produced a significant neuronal death, as well as the presence of senile plaques and tangles, as neurotransmitters, including acetylcholine, serotonin and norepinephrine, and it has a direct effect on the loss of cognitive and motor

skills and capabilities that they begin to be evident in the deterioration of memory, beyond the effect of the elderly, but there is a vaccine to treat Alzheimer's Disease?

It is what it is trying to find out from the AXON Neuroscience company and the Institute of Neuroimmunology of Bratislava (Slovak Republic), published in the journal of Alzheimer Research & Therapy [19].

Study on genetically modified mutant rodents to suffer the same effects of Alzheimer's Disease, they were treated with AADvac1, a drug experimental combat protein tau, responsible for the emergence and accumulation of tangles so characteristic, to be the goal reduce their presence.

The results show a success of vaccine, a reduction in the presence of the protein tau in a 95% precursors of tangles.

This form of research opens the door to a new type of drug, with very promising effects, giving greater hope to patients and families, that "soon" the cure will be a reality, at least in what refers to stop the advance, with the future hope that even the treatment allows the recovery of damaged tissue, or lost abilities can compensate with treatment Neuropsychological that often accompanies the drug.

Why is it so difficult to find a cure for Alzheimer's Disease?

Unlike other disorders, in Alzheimer's disease medications development has not been still able to find a cure for this disease.

Despite the many efforts that have been made so far, and the number of laboratories involved in the search for the cure of Alzheimer's Disease, still not found a treatment that serves for all patients. It is true that much progress been made in the knowledge of the disease and how it evolves.

Thanks to the development of neuroimaging techniques it has been observed which are the areas affecting first, and how over time will spread to the rest of the brain, which has served to focus attention precisely in those areas first, and connections that they emerge as a method of combating the disease.

Even partial results that have managed to delay the advance of this neurodegenerative disease, have been reached but cure still seems to escape to scientists, but why is it so difficult to find a cure for Alzheimer's Disease?

This is precisely what is considering a recent report published by the Director of the Department of health in England [20].

It discusses the few current medications and how this contrasts with the large number of new drugs tested and discarded in the process of research laboratories, that conscious of the growing need are busy by getting the cure for Alzheimer's Disease.

The study has been collected information about what are the causes of those pharmacological "failures", and the first problem encountered is the lack of transparency of this industry and the little information that transcends its investigations.

So pick up that, according to the data of the economic Office of the 2,000 studies with drugs made health, 110 concluded abruptly, being 54% of cases without explanation.

Other medications that completed its study, only 197 continued investigating, of which 30% had effects on any of the symptoms of the disease and the rest caused amendments in its advance. Being a 74% without explanation of why they did not continue.

Which leaves out two things, first the difficulty of finding a treatment, and secondly the lack of transparency about what "has not worked", knowledge of which would facilitate progress on new lines of research.

This rate of failure and neglect is quite significant, if one takes into account the financial investment involved in each of these studies.

We must consider that the treatment in humans requires previous phases with animals, initiating experiments with mice, where we study effects “similar” to the of Alzheimer’s disease in humans.

Highlight that the report begins with a review of data on the estimated cases of people worldwide affected by Alzheimer’s disease, raising the figure to 47.5 million affected this year. Also, it highlights the strong economic impact that is care in the health system of those suffering from Alzheimer’s disease, more than \$ 604 trillion, representing 10% of world GDP according to data from the World Health Organization.

All this speaks of a global problem that requires also a solution independent of the economic interests of one or another laboratory, global.

In addition, should take into account that, if focused on research in delaying progression of the disease, gets itself a cure, that would be to have cognitive abilities before the disease appears.

Evolution of Alzheimer’s Disease

It is a neuro-degenerative disease, its evolution will go into progressive deterioration of brain functions of the person who will be reflected in a loss of cognitive and even motor skills.

In the early stages, the disease is almost imperceptible since the gradual deterioration of memory accesses will not be important enough to care to the patient or their relatives.

In fact, during the first moments, as formerly had in mind is to be blamed that loss or lack of access to the memory how typical of the age, in which already not prompted the same performance than when it was a few years younger. The justifications may be different, but all seek to cover a possible problem which at the moment does not face.

At this early stage only specialists can be ruled out that these losses are due to more than just the passage of time, which will no doubt be good news since it can be retrieved with a little effort and dedication, doing appropriate exercises.

Subsequently, they begin to produce interference by the increasing failures of skills that it will be putting more and more in evidence, affecting the normal development of the person’s life and beginning to create conflicts of coexistence.

In the advanced stage, independence which, so far, the patient has been able to enjoy is compromised severely, and can reach a total dependence for any activity.

While the previous stages, were well known the why in some people evolved faster disease than in others was something that still is had failed to reply by scientists.

Already that if he is known may be best strategies which pursue “controlling” the effects of the facilitators of the advance, thus reducing their consequences, something which no doubt would serve for the purpose of slowing down its advance giving longer quality of life to the person affected by Alzheimer’s Disease.

So a group of scientists from the University of founded believes it (China) jointly with the Centre of translational research of the Kyoto University Hospital and the Foundation for innovation and biomedical research (Japan), published in the journal Plos One [21].

A total of 165 patients, 108 women and 57 men, diagnosed with Alzheimer’s Disease participated in the study that administered the standardized questionnaire of the mini-mental with which to assess the overall cognitive status of the patient, which also was

given a Neuropsychological battery full, where five dimensions were assessed: memory, visuospatial, language, executive function and attention skills.

Data relating to age, gender, educational level and medical history, especially hypertension, diabetes, Hyperlipidemia (high levels of lipids in the blood), problems of the heart (congestive heart failure, myocardial infarction or angina pectoris), problems cerebrovasculares, falls and arthritis were also taken into account. He was a follow-up two years and a half on average, since the first assessment to learn about the progress of the disease.

Results show a progressive decline in memory in all the patients, being especially prominent in the skill visuospatial, executive function and attention. Producing a faster deterioration of cognitive functions as soon as possible it appears the disease.

With regard to the differences between men and women, women showed a slower decline in memory than men evolution, something to point out the authors of the study without going to assess possible explanatory theories about it.

A surprising result was the finding that people who had higher educational levels lost the visuospatial skills more quickly versus those that had a lower educational level. Having a family history of hypertension and vascular diseases are associated with a more rapid development of cognitive impairment.

Equally important and complementing the previous study, has carried out a joint study between the FIEO University and the medical school Jundiaí (Brazil), published in *Advances in Aging Research* [22].

The objective of this study is to verify which cognitive faculties are losing with the advance of the disease and at what speed, since currently has “understood” that they are losing powers, but without going into to describe and understand how is this process.

It conducted a longitudinal study for six years to 51 patients over the age of sixty years (with average of 76 years), both sexes (72% women), diagnosed with Alzheimer’s Disease who were treated in clinical and geriatric centers of Sao Paulo (Brazil).

Performed all participants an extensive evaluation of many skills in two different times, assessing cognitive of Cambridge (C.C.E.), the mini-mental (M.M.S.E.), the screening test of Verbal fluency (F.V.) versions, animals, fruits and words that begin with “m”, the Test draw watches (C.D.T.), the questionnaire of preferences of functional activities (Q.A.F.P.) and the scale of geriatric depression (G.D.S.).

The results show deterioration in all functions evaluated in only two years, with the exception of the Test draw watches (C.D.T.).

It must be borne in mind that the participants were treated with drugs during the two years of the study, unless they received none Neuropsychological treatment, so in addition to showing the evolution of Alzheimer’s Disease in all areas assessed.

The authors leave evidence of the ineffectiveness of Pharmacology, as only therapeutic element, since alone does not stop the progression of the disease, leaving for upcoming research demonstrate the joint effectiveness of drug therapy and neuropsychological in this type of patients.

The authors clarified that they have only received treatment of rivastigmine, galantamine and donepezil, meantime having none of them received no.

Can you stop the progression of Alzheimer’s disease?

From the University of health and science of Oregon, the Department of the Affairs Medical Center of veterans and the University of Washington (USA) have carried out a study whose accepted were published in the *Journal of Alzheimer’s Disease* [23]. In this attempt to know if to you can stop the advance of Alzheimer’s Disease.

Involved 34 patients aged ≥ 55 years of age with a diagnosis of Alzheimer's Disease, which separated them into three groups, observing the evolution of the disease for a year.

He was administered to the first group from omega-3 fatty fish concentrate, acid supplements.

The second group administered supplements of fatty acid omega-3, present in the fish along with alpha lipoic acid, present in broccoli, potatoes, cabbage or spinach.

The third control group, not was administered active substance any, receiving only a placebo, maintaining the previous group management procedure, to be able to conclude if any change is not due to the placebo effect.

Being evaluated at the beginning and after a year, three groups with various Neuropsychological tests to check the induced effects.

The results seem clear in this regard, there is a reduction in the evolution of cognitive impairment, when the consumption of omega-3 fatty acid, is incorporated but this slowing of progress is greater when combined with alpha lipoic acid omega-3.

Having incorporated a control group which received a placebo, ensures that found effects are due precisely to the controlled substances established consumption, and not to any other factors not controlled within the study.

An encouraging result, as it not only confirms the previous data of the benefits to the brain health of fish consumption, which had evidence that reduced the risk of developing Alzheimer's Disease, thus acting as a protector of the deterioration of the brain, but it now checks to see that their consumption, even when it is present the disease, reduces the evolution of it, although a superior effect occurs when the consumption of omega-3 fatty acid is combined with the use of alpha lipoic acid.

Can you predict who will suffer from Alzheimer 's disease?

One of the biggest difficulties is when determining normal aging, against the evidence that can lead to a dementia patient. In recent years has made an important effort to try to discern between what is "normal" and not in the aging, since, if you get to know, oriented specific treatments can be established that the evolution of the Alzheimer's Disease occurs more slowly, and even stop its evolution in the early stages.

When the effects of Alzheimer's Disease have been noticeably different from the normal aging, is because there has been a significant cognitive impairment of the patient, even without a diagnosis in this regard.

Casual omissions, especially of recent events define what is called mild cognitive impairment, which is present both in people of advanced age as among those that they will suffer from Alzheimer's Disease, but it is still at an initial stage called prodromal phase.

Recent studies have noted the presence of biomarkers in the brain in this prodromal phase which is not found in normal aging, can these cerebral biomarkers allow distinguishing between people will suffer a dementia in the future?

This is what tries to find out from the King's College London, Exeter University, Oxford University, Proteome Sciences plc, EMD Millipore Corporation, Center of Medical research of GlaxoSmithKline (England), the McGill Center for aging studies (Canada), Eastern University and the University Hospital of Kuopio (Finland), University of Lodz (Poland), the University of Perugia (Italy), Aristotle University (Greece), University of Toulouse (France), the Karolinska Institute (Sweden), Research Institute medical QIMR Berghofer (Australia), published in the journal Alzheimer's Disease & Dementia : The Journal of the Alzheimer's Disease Association [24].

1,148 people, separated into three groups, participated in the study 475 patients diagnosed with the disease of Alzheimer's Disease, people diagnosed with mild cognitive impairment and elderly people without cognitive impairment, apart from the characteristic of aging.

Of all analyzed a large number of proteins present in the brain, in addition to passing a test of neuroimaging to detect structural damage in the brain.

Of all the plasma proteins tested, only 16 were significantly present in patients with the disease of Alzheimer's Disease, which is also in cases of mild cognitive impairment. All of them were estimated that 10 were proteins that had more power at the time to explain this deterioration.

The authors indicate the benefits of establishing that it is possible to distinguish between normal aging and mild cognitive impairment, as a prelude to Alzheimer's Disease, with only about 10 biomarkers and even detect this before the deterioration is so important as to establish the diagnosis in this regard.

The huge turnout in the study's researchers and universities around the world, as well as patients, allows us to affirm that the biomarkers are universal.

Consequences of Alzheimer's Disease

Although not we realize until we lose it, we are moving the world thanks to the memory. By it we know what we have to do every day, recognize the places and the person that we find on the street or at work, have a healthy relationship with acquaintances, and especially and most important we identify ourselves as people different from the rest, with an identity and personality.

The memory loss is going to affect each of the fields beginning, so far to go causing a progressive suffering, not just in the patient who sees how increasingly will be seeing more limited, but in its friendly people, who do not understand the reactions characteristic of memory loss.

Which does not return the greeting from someone who until recently was known and it even could have had a more or less cordial friendship. He not know the fellow that has worked, that can travel, or simply meets playful somewhere.

Forget the family important dates or even begin to not knowing who's who within the family. This will create an upset by third people that they will not cause but a greater suffering in the patient, then realizes that is doing damage to others, and does not understand at all why, is something that even makes it to wanting to.

Therefore, if it is not taken into account and cared for very much, trying to involve people known and familiar in the knowledge of the disease, the patient will suffer a progressive isolation from their environment, mainly by lack of understanding, which will make you have less social stimuli, so necessary to cope with times of disease, which is favour a worse prognosis.

While cost the patient sometimes recognize their problem, since it will "fill" gaps of memory, forming 'false memories' and Fables, to bring some coherence to his own speech, reaching the person to believe what he says.

What should not be confused with lies, in Alzheimer's Disease patients, there is no intention to deceive the other person, misrepresenting and manipulating reality, just the person is unable to remember events and tries to overcome their situation through inventions that even believe.

There are several types of memory, each of which goes to leave seeing gradually affected by the disease, with what its external consequences vanan to cause suspicion on relatives that something is wrong, to be evidence undeniable until you reach the absolute dependence for any activity.

Episodic memory, so named to that which we use to store and retrieve information of events that have occurred in the past, i.e., episodes of our own history.

Operative memory is that it allows to perform simple activities or require certain monitoring of successive tasks, as for example dressing.

All this exemplifies how the memory goes beyond what usually is considered, that it is storing data, dates or events.

How the disappointment affect the elderly?

A look a little forgotten from the field of research in regarding the emotional experience of the patients with Alzheimer's Disease, focused efforts to discover new treatments more effective, at times passed by something that the important thing is the person, and especially the emotional world in which we are all immersed.

The elderly have had many positive and negative experiences in life, but that doesn't mean that they are sensitive to the trouble.

As we are living we have more experiences, allowing us to know how to deal with the situations that arise, be these positive or negative. That makes that knowing how to react to these circumstances, emotions generated affect us less, at least so there has been a belief for a long time.

At the same time have been developed research that analyze the influence of emotions in health, so a 'strong' or powerful emotion, you can cause temporary mismatches in person, which eventually recovers from the "print".

But these investigations have focused mainly on positive emotions, trying to get to know, for then what are the conditions most conducive to the emotions positive at certain ages, especially sensitive to what is known as the "third age" and even the "fourth age" for the longest.

Then uniting both streams of research and going a bit further, especially with negative emotions, those that cause a greater impact by his unpleasant emotional charge, remains to know how the dislikes affect the elderly?

This is precisely what is at issue is confirmed from the Carnegie Mellon University (USA) published in the scientific journal Health Psychology [25].

The study involved 6.817 over 50 years, from a previous longitudinal study called the Health and Retirement Study (HRS) during the 2006 to 2010.

They were all different standardized questionnaires sociodemographic; their health, the number and severity of cases in which receiving dislikes, as they came from your partner, children, other relatives or friends; and his mood, added to which they took his blood pressure.

These results were compared with expected standards according to their age and condition sociodemographic, previously established, were excluded from the study those that showed high blood pressure baseline and were administered that medications to control your tension.

The results indicate that far from protecting the age facing the trouble, as we grow older we are increasingly sensitive to negative emotions, at least as well researchers understand it to find that in four years of study, 29% of participants had developed hypertension, 38% related to the negative emotional experiences.

This relationship is given with greater intensity in women between 50 to 65 years, and they mainly come from family and friends.

While the results seem to be clear, there are still 62% of cases of hypertension not explained by the negative emotions of the trouble.

Similarly, differences men women, they have been identified but not explained properly on what can be its origin; If it is something biological, life experience or other factors to “protect” the tension of man against these misfortunes and that instead the woman affects you so negatively, which causes him to lose health.

Once known how changing feelings and emotions in the elderly, we can address how to vary these in patients with Alzheimer’s Disease:

As you go advancing disease, you will be slowly changing the person, his character, both in its form of thinking and relating. This is due to several factors, the first of them, is a direct result of his illness, as we are as we are, by our life experiences that we have marked for life, facts and events that we have very present every day and that make us be, think and express ourselves as we do, but when these experiences of the past are forgetting, much of our way of being is losing sense and diluted as if the patient had lost his features more defining.

Contrary to what one might think, the person suffering this disease will be subjected to multiple mood swings throughout the process, especially given by frustrating to see how little by little loses control of his life and above all himself, the inability to recover memories at will and achieve an acceptable life.

Similarly, this anger may be reflection of insulation is suffering, from colleagues and friends with the family, that so it will not disturb them a little side letting the patient.

All will go together with moments of clarity of consciousness in which realizes the suffering it causes in the family and which not only does not want to be responsible, but it also feels bad for it, which increases their sense of impotence.

In addition, and depending on the age of the patient, the feelings will be experienced differently, for what is lost, when one is closer to its end, is much more important than when it is halfway through its life.

Unlike other diseases, that puts at risk the physical health, that this can be reduced, when it comes to health psychology, who is suffering most is precisely who more life experience has been, as he realizes both and so much that it loses.

Do you determine if you have a professional caregiver?

In the strictly field of the patient’s care should take into account that as faculties, due to the progress of the disease, will be lost will be increasingly dependent, specifying why someone who treats you with what you need.

In many cases, the care usually supplement with what is referred to as informal caregiver, as opposed to the formal caregiver. The second is usually a person entitled, specifically prepared for this task, while the first is usually a close relative, who is responsible for caring for the sick.

Dementia, including Alzheimer’s Disease, is is a neurodegenerative disease irreversible, which lost cognitive functions and Musculoskeletal which can occur in both young and older. Although at times it can be confused by the family with a “natural” process of aging and, therefore, loss of features and capabilities following a downward slope from the maturity.

This disease can be caused by the presence of other prior, such as Huntington, Multiple Sclerosis, and Parkinson’s disease, either caused by cranial injuries, tumors brain or by excessive consumption alcohol. Whatever its origin, to be an irreversible degenerative process, family raised, how to attend the patient, either with professional help, or what has come to be called the informal care, i.e. a person or several that are turns, are made in the care and attention of the patient, usually at the expense of “their own lives” that is, giving

up much of their course work, and social activity by an “intensive” care of the patient with dementia.

If until now understood that the decision of the professional or informal caregiver, was rather an economic issue, in which the family after “taking account” decided if they could pay the expenses that a professional caregiver required, either to enter it in a specialized center, or qualified external personnel who take care of you.

A study conducted jointly by the scientific center of health Texas A & M and University of Washington (USA) published in the International Journal of Social Science Studies [26] examines whether the economic issue is decisive.

270 families with patients diagnosed with dementia of a database of 1,770 patients age 70 or older participated in the study from years of the ADAMS database.

Results reported that married people tend to care for their partners regardless of other issues such as economic or demographic.

With regard to demographics, Hispanics and the “white” are those who make most use of the formal caregiver. A surprising result is that economic issues have less weight than expected, resulting not significant when making the decision between the informal and formal care, depends more on the altruism of the family member who is going to make the informal care of the patient with dementia.

The foregoing does not only record the increase in informal by family care, especially when there is a bond of marriage between patient and caregiver, as well as when the caregiver exhibits high levels of altruism.

The study questions that this trend in the care of the patient with dementia, so characteristic of our culture, is adequate and above all effective compared with professional care.

Leaving in evidence the need to train the caregivers, so that, either by reason of love, altruism or economic, to attend their family conditions, unless it involves a loss of attention in comparison with which could provide a professional.

Hence the convenience and the need for family-specific training courses, both for the care of the patient with dementia, as for their own care, i.e. courses of “care for the caregiver”, since it has observed how long term care, leads to a decline in the health of the caregiver, accompanied by certain social isolation, which ultimately derives in a worse quality of care provided to the patient with dementia. But also the caregivers of Alzheimer’s disease patients may suffer negative effects due to their work. In recent years the society has realized, that caring for Alzheimer’s disease caregiver is essential to providing a better quality of life to the patient.

Already, the work of care and a patient’s care is a task that can become exhausting, when cares for a person with Alzheimer’s disease is so much more, and if that is added is a family member, the emotional burden can become huge. If depletion joins him concern, you wear a caregiver to a situation of continued stress, which will bring with it problems sleeping, changes in weight, fatigue and irritability, and that medium and long term will facilitate the emergence of psychosomatic illnesses.

One of the biggest challenges facing a caregiver tends to be his own lack of care, with a tendency to socially neglected and even personally, spend all the hours to be with the family that suffers from Alzheimer’s disease.

Unlike the professional caregiver, that when he finished his day’s work, is “quietly” going home, when it comes to attend to a sick family member that “disconnect” is not. Besides own concern for the patient, the rest of family pressure you for “don’t miss you”, instead of them encourage you to make it clear, and provide better care.

Non-professional caregiver also is left with regret constant of not knowing if what makes served for something, knowing that Alzheimer's Disease is a disease that is progressively deteriorating physical and mental health of the family.

This is why, in recent years, programs being created to care for the caregiver of Alzheimer's Disease, with the invention of inform and educate caregivers on how to perform their work without putting their own health at risk.

In a study carried out by the Hospital of Bohars and Center Jean-Marie Léger, (France) published in the scientific journal Open Journal of Psychiatry [27] reported the increase in cases due to emotional issues, such as major depression disorders, or anxiety disorders, among others, but there are also cases of "social isolation" with loss of friendships which will make it difficult, if possible, that the caretaker has an "escape route".

In addition to the above, and is something in what barely works from support groups caregiver, it is necessary to "re-educate" both the caregiver as their relatives about guilt, since it is the one that will generate large family tensions and ultimately will prevent that the caregiver is temporarily disconnect the work of caring for the patient with Alzheimer's Disease.

"Self imposed" guilt, constantly reminded by their relatives, will lead to the caregiver does not have "free time" and if at some point, feel bad why. That is why the new studies are giving great importance to the quality rather than to the amount of the assistance that receives a patient with Alzheimer's Disease, where it will gradually go to suffer deterioration of their skills. cognitive and physical.

Exercises in the air and the Sun, are the least recommended, in addition to walking; i.e. ' must not lose sight of the health of the caregiver, allowing you to have your moments of leisure, to practice a hobby or go out with friends, all of which not only will not have any negative effect on the patient, but on the contrary, since caregiver will feel renewed in their forces and will assume its work with greater fortitude.

Can be improved by intervening in the caregiver Alzheimer 's disease?

One of the problems associated with Alzheimer 's disease is that it is a neurodegenerative disease, so over time the person is losing powers. A situation which apart from suffering for the patient and their family members, it must also cope with the caregivers, since their work every day are becoming increasingly complex, since Alzheimer's Disease patient is being increasingly dependent.

Often it's an informal caregiver, i.e., a member of the family which is responsible for the care of the patient, which in addition to the emotions it stirs you by their affinity, has an added plus of pressure because you are not trained and prepared for it.

More or less all we are able to cater to a newborn kid, or meet an old man in the more general care, but this is not sufficient when it comes to a sick person and hence the need for these informal caregivers are professionalized or at least come to associations and organizations that can offer the necessary professional support which supplement its shortcomings, with the idea that can provide the highest quality care the Alzheimer's Disease patient.

In fact the knowledge about the disease and its progress will not be the only criterion which will affect the quality of care, but also the own physical and psychological health of the carer, since if this is resented by some disease, it will also care that can provide, hence that in recent years is begun to pay greater attention to the caregiver on everything from the various public and private institutions, that organize events both awareness and coexistence between caregivers, both in terms of information refers, as a time to offer help and consolation emotional, which can "recharge your batteries" to power do its job, but can be improved by intervening in the caregiver Alzheimer's Disease?

This is precisely what research from the school of public health is and the school of Medicine of Drexel University, the Johns Hopkins School of nursing and the University Case Western Reserve (USA) published in the scientific journal International Journal of Alzheimer's Disease [28].

Researchers have tested a training program to caregivers to check if it has effects in themselves and in the patients of Alzheimer care, all evaluated in three times, at the beginning of the study, after six months (time of completion of the intervention) and another six months since the end of the training.

The study involved 102 families, 50 where careers would receive a certain training and 52 where they would not receive anything, control group. Among the requirements to participate in the study was, that they dedicasen more than eight hours a week caring for the Alzheimer's Disease patient, and that they themselves were not no psychopathology, assessed using a standardized questionnaire called the Short Portable Mental Status Questionnaire. Also found that the Alzheimer's Disease patient was not simultaneously suffering other psychopathologies that complicasen the diagnosis, or which is filed along with other dementias.

All participants assessed them their level of anxiety through The State-Trait Anxiety Inventory, A-State (S.T.A.I.), their level of depression with the Center for Epidemiologic Studies Depression Scale (C.E.S.D.), his inventiveness to solve problems with Self-Control Scale (S.C.S.), its preparation as caretaker with Preparedness for Caregiving Scale, the role of the family in care with Family Role Reward Scale (F.R.R.S.), family tension by the care of the patient with Caregiver Role Strain, the quality of care with Mutuality Scale (M.S.), and through Revised Memory and Behavior Problem Checklist (R.M. behavioural problems. B.P.C.). He was carried out in the experimental group intervention sessions of two hours a week, for six months, where trained carer in the management of own emotions.

Also held a training to learn more about Alzheimer's Disease and how had to face each of the situations that will be emerging over time.

After training turned him to assess, to check if there have been changes. He was also evaluated at six months of finishing the program to see if the changes were long-lasting in time.

The results indicate after six months of training, a significant improvement in terms of inventiveness of the caregiver, with a significant increase in their level of anxiety compared to the control group.

Six months after training, changed the tide, now showing higher levels of anxiety caregivers in the control against the trained group, although the difference was not significant, showing these recent higher significant levels of preparation and resourcefulness to solve problems in the care of the patient with Alzheimer's Disease.

In terms of qualitative assessment relatives of participants reported an improvement in the quality of the treatment to the patient thanks to the training program.

The results leave check desirable effects of the intervention on the caregivers that are going to have an impact, both on his own emotional life, and about the quality of care that is going to be able to offer the sick Alzheimer's Disease patient.

Does influence the abuse in Alzheimer 's disease?

One of the main problems between the older is that sometimes can suffer abuse, either verbal or physical. A situation that has little impact on the media, with exceptions given the seriousness of the case, or when he is abandoned to the elderly in a gas station or a hospital, to not become a charge of the same.

An abuse that there is still little social awareness, as opposed to the abuse of gender or abuse the child, but is so much or more serious than any of the previous two, since it is produced on a defenseless population, weakened by the passage of time and in many cases suffering illness. This abuse of the elderly, usually come from the closest family circle, both caregivers when they serve them.

How to express this abuse can be verbal, through insults, threats, or contempt, or physics either through aggression or preventing the elderly to perform some activity, as for example go out. It is known, there is still no clear the offender profile, or the “reasons” that drive you to mistreat the elderly, may already come from social, economic or family problems.

The consequences of such abuse are equal to or more serious than the abuse of gender or of the child, these two there is time to “recover” and even carry a life standard since, but the elderly do not have that time.

Abuse whether physical or verbal, will have significant effects both psychologically in the mood of the person and their self-esteem, as at the physical level, both by the consequences of the aggression, and that affected the immune system with a reduction of defenses and result in worse health.

To this he must join a climate of tension, anxiety and even fear that the elderly, develops when you must live with their abuser, without knowing when will return to attack him, or if this time will do so with a greater gravity.

But when this abuse elderly people who are already suffering illness live, the situation is more serious, since it will go to the detriment of the recovery of his illness and the aggravation of their symptoms.

One of the most serious diseases that the elderly can suffer is the Alzheimer’s Disease, both by its cognitive consequences and of quality of life of the patient, but does influence the abuse in Alzheimer’s Disease?

This is precisely what is trying to be investigated from the University of the South Florida, the State University of the South in Connecticut (USA) published in the scientific journal *Aging Science* [29].

The data analysed in this study were extracted from one more so-called Aggression and Violence in Community Based Alzheimer’s Disease families grant (AV_CAD), involving more than 6,000 people. The participants made a first screening according to the following criteria: be older than 60, be diagnosed with Alzheimer’s Disease according to the NINCDS/SARD criteria at least three years prior to the study, have a level of normal cognitive skills according to the Folstein Mini Mental Status Exam (M.M.S.E.).

So at the end there were responses from 254 caregivers and 76 patients diagnosed with Alzheimer’s Disease.

All them questionnaire was administered a standardized domestic conflict resolution called Conflict Tactic Scale (C.T.S.), which evaluates three strategies for resolving family conflicts, reasoning, verbal aggression, and physics.

The results indicate that the reasoning is the most usual resolution of conflicts both by caregivers and patients with 91.4% and 89%, what is reduced in the last year of the disease, going to 66.3% and 45.3% respectively.

Which shows that the progress of the disease will have a direct impact on the deterioration of the use of reasoning as a means of conflict resolution.

On the other hand, in the last year of study resolution through verbal aggression levels rose to 59.3% and 68.7% respectively; and to a lesser extent, although not it less worrisome physical aggression, a 16.8% and 24.2% respectively.

The data leave no doubt of the worrying situation faced by those suffering from Alzheimer's Disease, as soon as that are recipients of abuse by their caregivers and family members.

Note that there seems to be a vicious cycle of violence that is established as the disease progresses, since levels of verbal and physical aggressiveness have increased from caregivers to the elderly, but to a greater extent from this to their caregivers and families, both verbally and physically.

The study despite being clear in its results does not assess the motivations that may be behind this change of trend towards violence.

Prevention of Alzheimer's Disease

Eight hours sleep is essential for our brain health, but lack of sleep can be a risk factor that is conducive to the emergence of Alzheimer's disease?

Sleep is essential for our brain activity, which is when they are creating and "archiving" traces of memory of what has been learned during the day.

Classic experiments upon deprivation of sleep, they show the devastating effects on attention, performance, and other cognitive functions like learning, and can even put at risk the mental health of the person, which shows tired, exhausted, but also irritable, with moments of euphoria, paranoid thoughts, and can suffer psychotic episodes, and all for not sleeping well after days without sleep.

It is said that you a time overcome childhood, in which there is a greater number of hours of sleep than of monitors, the agency reversed that ratio, need around eight hours of sleep the rest of his life. Although sometimes the administration of time is not continued, being able to produce losses and accumulations of sleep for a while, then recovering, for example, in the "guards" of some works, which lengthen the workday, or when young people were already is for academic reasons or for fun, then recovered that dream "hoarded" with a long layoff.

Equally, and naturally, in the third age it tends to produce a division of the sleep time, instead of the eight hours, sleep is usually wake up after five hours of sleep, to last a few hours, to complete the three remaining hours.

But in the third age, is usually tend to leave a little aside morality, unless noted you with some insistence, thus gives frequent is that may suffer major cases of dehydration, especially in winter, since they do not maintain a routine of drinking plenty of water daily, and instead leave it to when they are thirsty or "remember"; as well, the same seems to happen with sleep, that sometimes is "they deregulate", not sleeping eight hours daily, but they do so when they feel tired, not realizing that sleep is essential for the proper functioning of the brain, even in older people.

So at least says a University of Washington study published in the journal Nature Reviews Neurology that relates to the lack of sleep with the presence of a substance in the brain called peptide, whose buildup, moreover, is one of the risk factors for the onset of Alzheimer's Disease [30].

The study analyzes the relationship between the Beta-amyloid peptide, lack of sleep and the onset of Alzheimer's Disease, concluding there is a direct relationship between an insufficient quantity and quality of sleep, with a greater appearance of this amino acid; There is a direct relationship between the accumulation in the brain of this peptide, with a worse cognitive performance showing symptoms that could be classified as their own in the early stages of dementia.

Given two relations sets a new, that lack of sleep, in quantity and quality, can be a risk factor that would trigger the appearance of Alzheimer's Disease.

This deregulation of sleep, could be explained by both the sleep disorders that often accompanies Alzheimer's Disease patients, not so much a consequence as up to now believed, if not precisely a cause of the disease and its further aggravation.

Extension Alzheimer's Disease

Is one of the main problems that currently have some of the Governments of developed countries when it comes to deal with the issue of Alzheimer's Disease is that it always do so palliative, putting the media to solve, when the disease is advanced and patients show obvious cognitive deterioration that led him to the query to get a diagnostic light in this regard.

A process that since it began to show the first symptoms of the disease through the mood swings and the progressive loss of memory, makes that the diagnosis could manage to delay even years. Especially when the disease usually experience at an advanced age, making it difficult in many cases to discern between what is a decay of the cognitive abilities of the age of deterioration caused by Alzheimer's Disease in its early stages.

When the disease progresses more and its effects, by the progressive deterioration of skills and abilities of the patient and the increase of the dependence of the same are being more evident. But this time, have already spent years in which could be engaged to try to stop the advance of the same, in the absence of a scientific development that will reverse the effects of the disease.

Therefore, that many efforts have been made to establish the early diagnosis of Alzheimer's Disease, using various instruments, such as biomarkers or neuropsychological evaluations.

But equally they can only be applied to patients who attend consultation, because they have suspicions that something happens to them, and who do not respond as before, that excludes a vast majority receive a screening at time, so the disease will continue silently, until you are in advanced stages, where the originated deterioration is already too evident even to the person.

Since different scientific societies and associations of patients, are works by raising awareness about the disease, but still lack established preventive plans, as is made to other diseases, such as breast cancer, where is recommended to the entire female population, carried out an annual check-up from a certain age.

But in order to establish a plan as well, incorporating diagnostic techniques early, first of all, we must make clear what percentage of the population affected, and establishing the age from which it would be useful to perform an annual check-up, but is it possible to estimate the incidence of Alzheimer's Disease?

This is precisely what is studied from the Hospital Alto Deba, Hospital Donostia and appointment-Alzheimer's Disease Foundation (Spain) whose results have been published in the scientific journal completo Alzheimer's Disease Research & Therapy [31].

In this case study is a mathematical model that allows to make predictions on the matter, so it not is has worked directly with patients, if not with the data collected from macro statistics earlier.

This model considers three main variables, to determine the incidence of Alzheimer's Disease in the general population, the first of it is the age of onset of the disease, the second time since arises the disease until obvious symptoms, and a third is show time of the patient's life. Results in the Spanish population show that since the age of onset of the disease, which tends to be between 40 to 60 years, this takes in expressing an average 22-year-old. Being affected by 35.9% of the population by this disease from the age of 60.

Despite this, the results clearly indicate that from the 60's it would be appropriate to perform some preventive analysis, to determine if early symptoms of Alzheimer's Disease, will suffer as the population incidence is 33%, being indispensable from the 65 it ascends to the 44.5%.

These data allow to know the incidence of Alzheimer's Disease in the population, and to establish plans for early diagnosis, to help detect the disease early and implement compulsory treatment, which can include pharmacology to stop progression of the disease, and in any case, intervention Neuropsychological that develop strategies and skills that make up that are gradually going to go missing because of Alzheimer's Disease.

Is Alzheimer's disease progression equally in all countries?

A recent report by the complete Alzheimer Disease International, titled World Alzheimer Report 2015 - The Global Impact of Dementia draws a picture of the extent of Alzheimer's Disease in worldwide, with a total of 46.8 million affected by this disease. Of which 9.4 million are in America, 4 million in Africa, 10.5 million in Europe, and 22.9 in Asia.

A situation far from stabilized, is predicted to reach almost will double in just 15 years, expected 74.7 million in 2030. Waiting for a higher advance in America and Africa, from 9.4 to 15,800,000 and 47,000.000 respectively.

These figures may seem alarming, especially if one considers that by 2050 it is forecast that the planned figure almost doubles 2030 and going from 74.7 to 131,500,000 people affected by this disease, but there you have to do is associated with a progressive aging of the population, so too does the possibility of the occurrence of diseases where advanced age is a risk factor for its occurrence as occurs with Alzheimer's Disease but Is Alzheimer's Disease progression equally in all countries?

This is what comes to figuring out from Eli Lilly and Company, Indianapolis, one of the largest US pharmaceutical company, in collaboration with Indiana University School of Medicine, Indianapolis; University of California, Irvine, Institute for Memory Impairments and Neurological Disorders; Baylor College of Medicine, Department of Neurology, Houston; University of California San Diego School of Medicine; Dementia and Geriatric Psychiatry, Bracket and Cleveland Clinic Lou Ruvo Center for Brain Health (USA) whose results have been published in scientific journal with title complete Alzheimer's Disease Research & Therapy [32].

An international study which centers in 29 countries, the results were grouped into four regions, North America took place; South Armerica; Western Europe and Israel; Eastern Europe and Russia; Australia, South Africa, Asia and Japan.

In all of them they conducted four clinical trials to evaluate the effectiveness of various substances used in the treatment of Alzheimer's Disease, all with their corresponding control groups.

The study was to analyze how advanced the disease by comparing participants receiving a type of treatment versus those who were not receiving it.

The success of the study of each of the drugs have been previously publish the free, what concerns us in this study is comparing the efficacy of each of these in each region, which at first was not investigated.

The results show that there is an unequal effectiveness of treatments depending on the region of the patient treated, that is, the Alzheimer Sexually transmitted diseases seems to advance faster in Eastern Europe and Russia. By contrast, with respect to the average, slower progress of Alzheimer's Disease in Japan and Asia block was observed and in South America. Getting an evolutionary intermediate between the countries of Western Europe and North America and Israel.

Something they would not expect from a clinical trial research, where there is usually consider the location of the patient to the design of new drugs.

Emphasize that it is the first global analysis, with the participation of many countries in a clinical trial of its kind to combat Alzheimer's Disease.

Keep in mind, as the authors themselves point out that despite the large number of countries participating in the study, the contribution in number of patients in the study have been uneven, which makes the results have to be taken carefully.

Likewise, the existing differences in the criteria used in assessing the evolution of Alzheimer's Disease may be misleading as to the findings of the study.

The authors try to offer a range of explanations, such as an incorrect activities, differences in the experience of the researchers involved, or age differences of the participants themselves, have been cited as possible explanations; all it is assuming that there is no environmental cause that could be influencing a different evolution of Alzheimer's Disease.

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The center of attention State reference to people with Alzheimer's Disease and other dementias of the IMSERSO is configured as a central public health specialized and advanced research, analysis, knowledge, evaluation and training about Alzheimer's Disease and other dementias and attention and intervention with those affected and their families. It depends on organic and functionally of the IMSERSO, Ministry of health, social services and equality.

The C.R.E. of Alzheimer's Disease arises to meet the needs of people with dementia and their families. In view of the current situation and forecasts for the future, clearly the need to move forward in the search for answers and solutions, adopt measures of a social nature along with the sanitary improvement of disease, establishing a network of social and health care to the patient and his family. Covered in the law of dependence, as key node of this network of services have created a set of State reference centres. One of them, located in Salamanca, specializing in Alzheimer's Disease and other dementias.

The C.R.E. of Alzheimer's Disease has a multidisciplinary team specialized in care to people with dementia and their families, divided into different areas, while working in a coordinated and complementary to a comprehensive and continuing care:

Medical: doctors of primary care, psychiatrist, neurologist, geriatrician, team of nurses and nursing assistants.

Area of intervention: neuropsychologists, occupational therapists, Physiotherapists, speech pathologist.

A families: Social workers, social educators and psychologist therapist family.

Professionals of non-pharmacological interventions: music therapist, dance therapist, professional intervention assisted with animals, re-education psychomotor therapists, professional intervention in new technologies...

In addition to the intervention team already described, the Center has a team of address, professional services of cleaning, reception, catering, security, maintenance, etc.

C.R.E. Alzheimer's Disease also has psychologists in two areas:

Neuropsychology: responsible for paying attention to people with dementia who attend the Center, responsible for design, neuropsychological assessment of interventions and development of stimulation (psycho-cognitive stimulation)...

Psychologist / family therapist: in charge of addressing the welfare of families that make for the care of persons with dementia. Detecting and addressing the needs with the peculiarities presenting each of the families, always from a biopsychosocial approach is essential.

C.R.E. Alzheimer's Disease offers two distinct services:

Direct intervention services: responsible for providing care to people with dementia and their families who are users of this Center, seeking the improvement of the quality of life

and provide quality specialized care. Between the resources center is the center of day/night and living units, for the attention people in daytime mode or 24-hour. Stay in any of the resources is temporary, depending on the target set for each particular case.

Reference services: responsible for generating and transferring knowledge to the rest of society: professionals, institutions and families... Focus on research, analysis, training, cooperation between institutions that allows to develop knowledge that will benefit society as a whole. It has two areas:

Training, technical assistance and cross-sectoral cooperation. Responsible for providing training courses, in form of classroom training or e-learning, as well as the management of social networks which has the Center and its website.

Information, documentation, research, and evaluation. Responsible for research in non-pharmacological therapies, development of guides and publications, and attention to the demands of information to individuals, institutions and professionals.

Since the Centre has various services, there are also different user profiles.

People with dementia and families.

Social and health-care professionals.

Organizations, institutions and NGOs related to the disease.

The C.R.E. of Alzheimer's Disease, since it started its path in the search for the best possible care and the improvement of the quality of life of people with dementia, has always followed the line of research focused on the non-pharmacological therapies. You are defined as: "Any non-chemical intervention, theoretically underpinned, focused and replicable, carried out on the patient or caregiver and potentially able to obtain a relevant benefit" [33].

The objectives achieved so far have been many. Research on non-pharmacological therapies are giving good results, as in the case of animal-assisted intervention.

This research has provided positive results, demonstrated through the relaxing effect of the sessions, by the non-appearance of alterations of conduct and for the high level of involvement of users, compared to other activities.

Another intervention with very good results was the programme of comprehensive cognitive care in dementia, which was developed together with the University of Salamanca. It allowed the development of a guide and pieces of work that is available on the web www.crealzheimer.es

In addition, within the project "Space border on aging" of the program of cross-border cooperation (co-financing), the C.R.E. of IMSERSO, next to the University of Salamanca and the Fundación Alzheimer Queen Sofia have developed a pilot study for the "creation of a unit of quality of life", for people with dementia.

With regard to the objectives to be achieved in the future, they are continuing the improvement of the care of persons with dementia, through research, development of guides and manuals of good practice, as well as continue with the training of persons allowing the acquisition of knowledge adapted to this collective. Also a fundamental objective to achieve the Mission of this Center is the cooperation, the development of networks of experts for the transfer and exchange of knowledge between all the institutions that work, with the shared objective to improve the quality of life of people with dementia and their families.

Conclusion

I have tried to serve as a first approach to Alzheimer's Disease, clearing the own doubts by age or by having a family member suffering from it, being also a reference book for anyone who wants to deepen the knowledge of the latest research about this disease.

I have presented explanations clear and easy to assimilate about Alzheimer's Disease, their first symptoms, diagnostic tests employed, knowing what to do when the disease appears, what consequences will have on the everyday life of the patient and relatives, as well as the more correct way to confront the disease.

Among its pages have addressed the most relevant topics and the most important issues relating to the development, treatment and care of the patient who suffers from Alzheimer's disease.

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