

Chronic fatigue syndrome

Solved subtype of chronic fatigue syndrome with clear evidence and reasoning to support claim

Introduction

In this text I will discuss how I came to uncover the cause of this mysterious illness and you as the reader will have to decide for yourself how credible this finding is. This research has been done based on data of a particular subtype of CFS and is not relevant to any other subtypes of the illness. In order to demonstrate how I solved this illness I use some quite complex concepts along with examples of the concept's in order to help clarify how they work. My research I have gathered comes from a variety of different sources with each taking me one step closer in the progress of solving the illness. However, the bulk of my research comes from discoveries that I have made on my own which may be completely unknown to medical science.

The first part of my research was trying to understand the who, what, where and whys of the condition.

Who gets CFS? Are there certain types of people that are more likely to get it than others? Some key questions in further understanding the illness. There is clear evidence that shows women are more at risk to get the condition with middle aged women especially more likely to develop the illness. Furthermore, studies show that in this subtype there is a genetic disposition for individuals with a significantly higher probability of developing the illness if there is another family member effected by the condition as well. All this information is very important as will be shown further on in the text.

What are the primary symptoms associated with the illness?

Symptoms are of course relevant to any illness and they can be used to create a better understanding of what the root cause of illness is. The main symptoms of this illness of course is fatigue, hence the name of the condition. This is a common symptom of a lot of illnesses and provides us with little understanding of what the cause may be. There are a few more symptoms patients may experience but most of these are trivial and are not always constant or significant. However, there is one particular symptom that stands out above all others and this is the symptom of post exertional malaise, which is clearly known and understood by sufferers of the condition. This symptom is of great importance in working out that cause of this illness as it is a completely unique to this subtype of CFS. Unique symptoms are always good as they give away so much information on understanding the mechanism of the illness. If my hypothesis does not explain why CFS patients get worse during exertion then my claim to have solved the condition is not valid and can be dismissed. Let's now move on to main symptom of the illness and that of course is fatigue, so in order to progress any further we must first be able to explain what fatigue actually is and why fatigue is experienced as a result of the illness.

So what is fatigue?

Fatigue can be described as the lack of energy required to complete voluntary functions; this can be observed through physical fatigue where the individual is unable to perform movement to the same extent of a healthy individual. Or mental fatigue where the individual will be impaired in completing mentally challenging tasks compared to that of someone of good health. The term lack of energy is of course very vague as the term energy is hard to define when used in this case. As to understanding fully the mechanism of fatigue I am not able to do so however I am fully aware of what brings about fatigue

in the case of this illness. Fatigue observed in this sub group of patient with CFS is a clear product of an alteration in gene expressions where the up and down regulation of certain genes will have an effect on normal body cells resulting in fatigue experienced by the individual. This maybe something that is unknown to medical science which I have gone an uncovered on my own. This understanding is also backed up by the fact that there is a clear alteration in gene expression found by CFS researchers where the expression of certain genes is significantly altered in relation to exercise (reference to the symptom of post exertional malaise). The fact that gene expression changes during and after exercise is of huge importance as it in cases the symptom of post exertion malaise, as alterations in gene expression are clearly observed in relation to physical exertion explaining why patients with the condition experience this completely unique symptom of post exertional malaise. As I mentioned before I am not fully aware of the effects that this alteration of what gene expression would have on normal body cells but I do know for sure that these changes result in worsening fatigue for the individual. Fatigue in general is an important mechanism of the body as it can be hugely beneficial in terms of survivability. For example, if we did not experience fatigue, we would keep pushing ourselves until we drop putting our health at a clear risk. Fatigue is also hugely beneficial as it conserves energy so that the body can prioritize that energy on dealing with the main problem at hand.

What then causes this alteration in gene expression?

This is the next question I am faced with as there is obviously some function of the body that is calling for this change but what is it. When you think about this it becomes pretty obvious what is causing this alteration as it is one of the only functions of the body that actually could make this occurrence happen. **The immune system.** Anyone who understands the immune system will understand that an alteration of gene expression can occur as a result of immune system functions. This is clearly observed in all sort of illnesses, for example an individual with the flu is going to be in a state of fatigue, so what then causes this fatigue. Is it the virus itself that brings about fatigue? Or is it the immune systems reaction to the virus that brings about fatigue? And the answer is pretty obvious for just about anyone to understand that the immune system is the primary cause of fatigue in this particular case. So, if the immune system causes fatigue and fatigue is a product of an alteration of gene expression then we can successfully conclude that the immune system can in fact alter the expression of a particular genes. Now we must then work out why the immune system is conducting this change, what is the immune system reacting to that is causing this occurrence? Now first off, we must understand what the immune systems role is in survivability and the general idea is that the immune system is like the human bodies very own problem-solving defense unit where if something goes wrong within the body the immune system will fight in order to return the body to a homeostasis state. It's a fairly simple concept where if there is something wrong with the indivial then the immune system is going to be involved in one way or another and if the problem is not resolved within a period of time then the likelihood that the immune system is the problem itself is then increased significantly. So clearly there must be something that is stimulating the immune system in order for this reaction to be taking place, but what could this possibly be? If the immune system is constantly in activation mode what does this mean for the individual? Now if the immune system is responding to a threat why is the immune system unable to remove that threat? Is the indivial with this illness in some sort of stalemate with some unknown virus? And the answer is of course no. I will use an example to explain this, if there are two fighters and they opt to fight each other until only one of the fighters is standing, eventually a winner is going to emerge, as the idea of a continuous stalemate is so very unlikely. So, what then could it be that is stimulating the

immune system? Now this becomes once again pretty obvious answer when you think about it and the clear answer is that the antigen that the immune system is reacting to must be a part of the individuals own body. So essentially what I am saying is that this subgroup of chronic fatigue have some kind of hidden auto immune condition, this is a fair assumption as it is the only real logical explanation to these occurrences. Am I sure of this? Well if you compare the condition to various other auto immune conditions you will start to notice some distinct similarities. For example, auto immune conditions are quite often progressive and more common in woman, CFS is quite often progressive and more common in woman, auto immune conditions are generally constant in disease severity and have a genetic root to them, the subtype of CFS is defiantly constant in disease severity and for sure there a genetic roots linked to the illness, auto immune conditions are in general quite hard to diagnose and new auto immune conditions are being discovered over time, CFS is clearly challenging to diagnose as many researchers have found out and I stand by my claim that I have discovered a new auto immune condition. There are plenty more reasons to support my claim as well, for instance, what was said to be the breakthrough in chronic fatigue research? The use of rituximab in CFS patients. Researchers were stunned when several patients with a diagnosis of CFS went into remission following the infusion of rituximab. Now let's think what exactly is the drug rituximab and what exactly does it do??? Rituximab is a monoclonal antibody that binds to the CD20 protein on the surface of B cells and causing depletion via a variety of different mechanisms. It is essentially a drug that is used to treat auto immune conditions and with a great deal of success for that matter. so, the fact that people with CFS symptoms improve significantly upon using this drug it is of no real surprise to me as this treatment method should work based on my hypothesis. The majority of the drugs used to treat autoimmune condition can be used across the whole range of auto immune conditions because of the fact that these drugs are generally made to block or impaired immune pathways resulting in a decrease in severity of the illness. The usage of rituximab in auto immune conditions have some of the best result I have seen as it appears to stop stimulation altogether and has smaller side effects than some of the other drugs used. The fact that a drug used to treat auto immune conditions works on an unexplained illness that I am claiming to be an auto immune condition is fairly significant in terms of evidence. More so, I have even more information to suggest that I am right as another example would be with pregnancy in woman. Woman with this subtype of CFS found that their symptoms eased off during pregnancy and the reason is once again fairly obvious as to why. There is of course clear evidence that the immune system is being suppressed in pregnant women as the immune system is of course going to be tuned out so that it doesn't start attacking the newly formed fetus. This is once again just a random find that helps me back up the claim I am making. Naturally I have even more evidence to prove the fact that this sub group of CFS patients have a hidden auto immune condition but I shall leave it out as I feel I have made my point already.

What then is the antigen?

This right here is the million-dollar question as in figuring out what exactly the antigen is equates to the solving the illness, this is and will be of great significance to further medical research and also great significance to anyone currently suffering from the condition. So, in order to work out what the antigen is we must first look back at what the symptoms are in the hope that it will provide us with some information in order to fully solve the condition. Now what did I say was the most obviously unique symptom of CFS? The answer to this of course being “**post exertional malaise**” where the patient with the condition will become more fatigued in relation to an increase in exertion. Why then do patients

suffering from this condition get worse in relation to exertion? Just the thought of this seems so random as getting worse in relation to exertion does sounds kind of ridiculous. Now then, to work out the antigen we must first understand some fairly basic concepts. The immune systems reaction is entirely dependent on two factors and two factors only the reaction caused by the antigen and the antibodies, and the amount of stimulation between the antigen and the antibodies. To demonstrate this concept, I will use an example If a person of whom was allergic to peanuts and was forced to choose between eating one peanut or ten peanuts which would they choose? And the answer of course would be the smaller amount as there would be less of a reaction due to the less amount of stimulation between the antigen and the antibodies. So, if a patient with CFS gets worse in relation to an increase in excretion then this just mean that whatever the antigen is it has to be more present during exertion. So, what then is being increased in the body in relation to exertion and there is only one possible answer as to what the antigen is. A hormone!!!! What gets increased during exertion? The activation of the Hypothalamic pituitary adrenal axis, more cortisol is synthesized during exertion and this of course is common knowledge. Exercise is a form of voluntary stress, right? And what is stress??? Stress in this case is a word that represents the activation of the HPA axis more cortisol is going to be secreted from the glands into the bloodstream in relation to exercise. Fatigue of course is going to worsen due to the increase in stimulation between the antigen and the antibodies making my hypothesis appear to be valid. Now let's run through my hypothesis in order to make sure I am correct, remember that if my hypothesis cannot explain every symptom and every aspect of the condition then I cannot be right. So the question is does my hypothesis explain the symptoms of which the CFS patients have? Ok I am going to ask the question, assuming my hypothesis is true what would the symptoms be as a result of this. What would happen if the immune system was indeed attacking one of these hormones and the short answer is not a lot, seeing as these hormones are disposable not a lot would happen as a result of this. Essentially the individual would be having a mild to low case of Addison's disease of which would not result in any obvious symptoms. This is interesting as it shows the reasons why there is lack of evidence in the condition itself and why it has been so hard to discover. More so, the immune system cannot target every hormone as if this was the case the individual would be dead so it's kind of hard to say what percentage of these hormones are coming into contact with the auto antibodies of the immune system. The hypothesis itself showcases why there are of no real symptoms associated with CFS other than fatigue as there would be little sign of any abnormalities apart from a small drop in overall cortisol concentration. If I am right about the cause then patients with this subtype of CFS should show a drop in overall cortisol levels, and this can be shown in multiple studies done by various researchers that there is a sub group of CFS patients shown to have a significantly lower level of cortisol concentration. Furthermore, the reason for this phenomenon remains unexplained by medical science as the idea that the immune system is attacking the hormones themselves has never been considered as a possibility. The equation used to know if I am right or not is simply, **if** (everything known about the sub group of CFS patients) = (what would be the results if my hypothesis were in fact true) then my hypothesis is correct. So far, I am without contradiction meaning my equation is true. This is kind of a weird concept and is very hard to explain on paper.

Hard evidence to prove my hypothesis right

I have spent a great deal of time trying to prove myself wrong following the construction of my hypothesis as if I cannot be wrong therefore, I am right. In all my attempts at doing I have this failed as there was no way I could possibly find contraction in my work. I then finally came up with an idea in order to confirm my hypothesis and that was by doing a synthetic hormone stimulation test. If a patient's immune system was reacting to one of these hormones like I am claiming, how then do I prove it? And the test I came up with is a defendant sure way of knowing this. upon stimulated the HPA axis of a patient with this condition the fatigue of the patient should become significantly worse during and after the stimulation test. By using synthetic hormones, one could find out very quickly whether or not they have the condition. And yes, this has been done! patients with this subtype of CFS went off to do a stimulation test of the adrenal gland where synthetic ACTH was injected intramuscularly into the patient in order to test whether or not the adrenal gland was synthesizing the correct amount of cortisol in relation to the stimulation of the ACTH hormone. The evidence was clear as day, as following the test numerous patients complained of being completely wiped out during and after testing. This is exactly what I predicted would happen with the doctors in charge of the tests being completely ignorant to this phenomenon. There is no other possible reason that this occurrence would happen and it really does confirm my hypothesis to be true. This test I have created would work as a future diagnostic test for those of which feel they have this condition or are suspected of having this condition. Essentially if the test works you have the condition and if the test fails then you do not have the condition but not only does it confirm the cause of illness it can also be used to identify the correct hormonal antigen. There is a chance that some patients may have auto antibodies that react to the hormone ACTH and so synthetic CRH would be needed in order to make this diagnosis. Furthermore, I will use an example to explain how and why this test is so effective. Ok, what is the fastest way to find out if your allergic to peanuts? And the answer to that would be simply eating a peanut, if you react to the consumption of the peanut you are allergic and if you don't react then you are not allergic. And seeing as an auto immune condition and an allergy are essentially the same thing this can be used to diagnose the condition perfectly. The only difference between an allergy and an auto immune condition is that one is external and one is internal because allergies are external, they can generally be avoided however with auto immune conditions the antigen is constantly being exposed to the immune system so a reaction will always be occurring. Because these hormones are being secreted into the bloodstream in order to achieve ordinary body functions naturally the patient will be in a constant state of fatigue. This fatigue is going to be increased under stress where there will be a greater number of stress hormones circulating throughout the body.

Does this mean I have solved chronic fatigue syndrome?

No, I have not solved chronic fatigue syndrome as chronic fatigue syndrome does not represent a condition itself. Chronic fatigue syndrome could potentially be a label of multiple different conditions, this is explained by the fact that some treatment methods work for some patients but not for others. Take rituximab for example, why did rituximab work for some and not for others? Did these people have the same illness? And I generally believe this to be true as there have been countless studies to prove that there are distinct differences between individuals labeled with CFS. Another fine example of this would be to take a look at a condition called Gulf War Illness which was experienced by soldiers in the Gulf War. I bring this up because Gulf War Illness meets the criteria for chronic fatigue syndrome, it is an unexplained cause of fatigue that lasts more than 6 months. Essentially what I am saying is someone with Gulf War Illness would be given a diagnosis of chronic fatigue if they leave out the war part. If there can be one illness that goes undetected then the likelihood that there are more illnesses that go undetected is defiantly possible.

So, am I really right?

Well I said at the start that if I can find one piece of contradiction in my work then my claim is dead, I however cannot find one single piece of contradiction and believe me I have tried. My hypothesis covers every aspect of the condition perfectly as it explains why these people have these symptoms. My diagnostic test that I invented works amazingly well as it will only work if the individual has the condition and will not work if they do not have the condition. Like I said the test has been done, not intentionally but it has been done and worked on multiple patients with clear results. Though the test at this stage is very unconventional, later adjustments could be made in order to get a more standardized test.

What am I claiming.

I am claiming to have uncovered one of the more complex problems in medical science with clear evidence and reasoning to support my claim. The benefit from my discovery is huge as it will result in potential treatment options for patients of this condition, not only that but it will give the sufferers piece of mind in the fact that they know what's going on. Many of these patients suffer in isolation as nobody understands just how terrible this fatigue can be and are found quite often having to justify their illness to the people around them. For those who do not believe my claim to be valid I challenge anyone to find contradiction in my work, so that when you fail to do so my claim will become even more credible. I want people to challenge me, I want people to try and prove me wrong. At this stage I feel I am too right to be wrong but I always welcome a challenge.

Notes

I am hoping to make my work public knowledge as my discoveries will benefit society in a huge way, if anyone is interested in helping me make this happen, it would be much appreciated. Your welcome to try out my diagnostic test for yourselves as upon doing so you will soon realize I am right. If anyone has any questions relating to my work feel free to email me at robertwills27@gmail.com

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