



A GUIDE TO NEW HEALTH

THE MISKAWAAN WAY

THE FUTURE OF HEALTHCARE FOR HUMANITY

MHG CASE STUDIES



**THE PROOF
MHG CASE STUDIES**

THE PROOF MHG CASE STUDIES



The MHG case studies will provide you with some real world examples of our treatment of some pretty serious illnesses

Miskawaan Health's goal is to keep you well through the practice of preventative medicine.

However, if you fall ill, we can utilise our experience and knowledge of medical science and orthomolecular medicine³⁷² to make you well again.

Unfortunately, because of the way we treat our patients and practice our medicine, which is to personalise it, there is no standard treatment for any disease. Standard treatment = standard results.

We are all different, and so is the way that we choose to treat someone. Unlike the orthodox medical treatment model that seeks to treat symptoms using drug therapies (and it is very standardised), our method of treating the cause of an illness, is widely varied. This makes it very difficult to design a standard treatment that can be tested under strict research conditions, such as the randomised double blind, placebo-controlled trials. It doesn't mean they don't work; it is just that it is difficult to 'standardise' across a large group to conduct a trial. This is a sentiment that is echoed and supported by Saks et al in their book, *Researching Health: Qualitative, Quantitative and Mixed Methods*³⁷³.

In spite of this, there are thousands of studies conducted and available on websites, like the National Institutes of Health's PubMed

(<https://pubmed.ncbi.nlm.nih.gov>, <https://www.ncbi.nlm.nih.gov/pmc/>)

that investigate the scientific effectiveness and validity of the treatments that we use, especially in relation to nutrient therapy - see <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2695174/>

We have covered a lot of the basics in this book and have hopefully given you a starting point and shone a light on what Miskawaan Health does and how we might be able to help you or your loved ones on their health journey. And although we cannot direct you to 100% conclusive studies about treatments, we can offer you the above websites and show you what the Miskawaan treatments can deliver by revealing some of our patient clinical case studies (done with their permission of course).

As part of our ongoing research and documentation into the efficacy of our own therapies, we have compiled a short list of in-depth case studies, based on the clinical treatments of our patients, in the following pages.

These case studies include the following conditions and diseases:

- Andropause
- Burnout
- Cancer (Scalp Tumour)
- Cancer (Breast Cancer)
- Cancer (Breast Cancer Reoccurrence)
- Cancer (Leukemia)
- Dengue Fever
- Menopause

NOTE: The case studies of Praxisklinik am Schlosspark Eller/Miskawaan Health Group represent carefully and individually assessed patient treatments following extensive testing. They are only to be used as examples of treatments and for informational purposes, and not as a guideline for treatment. Blood test results listed below were conducted in our German clinic. Names have been changed to protect the privacy of the patients, and permission was sought and given for the use.

³⁷² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2695174/>

³⁷³ https://www.researchgate.net/publication/321011419_Researching_Health_Qualitative_Quantitative_and_Mixed_Methods_2nd_edition

Clinical Case Study

Andropause

Clinical Case Study

Andropause

What is andropause?

Andropause refers to the condition of progressive decline in male hormones with symptoms of low testosterone levels, loss of libido and erectile dysfunction, etc.

It is commonly seen in ageing male populations (Singh, 2013; Schwarz et al, 2011, Dept of Health).

For every decade after the age of thirty, there is a general drop of 10% of testosterone levels in males (Department of Health, 2017).

Common symptoms of andropause

- General symptoms - increased body fat, decreased muscle mass and strength, loss of body height, and loss of energy.
- Psychological symptoms - Mood swings, depression, anxiety, lack of vitality, and sleep problems.
- Sexual and urinary symptoms - low sex drive, reduced rigidity, impotence, and urinary problems.

Patient Background

Our study begins with a male, aged 55, presenting to the MHG doctors with a range of symptoms. Let's call him Joe. Joe presented to MHG suffering from the following symptoms:

- Sarcopenia (loss of muscle mass)
- Osteoporosis
- Loss Of libido and erectile dysfunction
- Constipation
- Mood swings
- Night sweats
- Saggy cheeks

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors ordered blood tests and continued to administer treatments. The treatment protocol was as follows:

- August 2017: Four types of oral supplements
- October 2017: Ten types of oral supplements
- November 2017: Six types of oral supplements

The results of the diagnostic tests and treatments are listed in the following pages.

Blood Test and Treatment

Testing mean corpuscular haemoglobin concentration (MCHC)

Mean Corpuscular Haemoglobin Concentration (MCHC) refers to the average haemoglobin in the red blood cells. Haemoglobin is the protein molecule that carries oxygen to the tissues within the body. The normal range for MCHC is between 33-36 g/dl.

Before treatment - July 2017

Joe's MCHC was slightly under standard at 32.3 g/dl, suggesting that he had signs of deficiency in Vitamin B12, which increases risk of depression, paranoia and delusions, memory loss, incontinence, and loss of taste and smell (Skerrett, 2013).

Test	Result	Unit	Reference Range / Result
MCV	96	fl	80 - 98 
Hämatokrit	48,0	%	35,9 - 50,5 
MCHC	32,3	g/dl	33 - 36 
RDW (Ery)	14,1	%	11 - 16 
Thrombozyten	182	TSND/µl	140 - 400 

During treatment - November 2017

During the treatment you can see that Joe's MCHC level starts to improve, going from 32.3g/dl to 33.2g/dl.

Test	Result	Unit	Reference Range / Result
MCV	93 <small>96(27.07.17)</small>	fl	80 - 98 
Hämatokrit	42,8 <small>48,0(27.07.17)</small>	%	35,9 - 50,5 
MCHC	33,2 <small>32,3(27.07.17)</small>	g/dl	33 - 36 
RDW (Ery)	13,1 <small>14,1(27.07.17)</small>	%	11 - 16 
Thrombozyten	171 <small>182(27.07.17)</small>	TSND/µl	140 - 400 

After treatment - October 2018

After treatment, Joe's MCHC has improved by 4% and has returned to the normal range.

Test	Result	Unit	Reference Range / Result
MCV	93 <small>93(28.11.17)</small>	fl	80 - 98 
Hämatokrit	43,8 <small>42,8(28.11.17)</small>	%	35,9 - 50,5 
MCHC	33,6 <small>33,2(28.11.17)</small>	g/dl	33 - 36 
RDW (Ery)	13,3 <small>13,1(28.11.17)</small>	%	11 - 16 
Thrombozyten	176 <small>171(28.11.17)</small>	TSND/µl	140 - 400 

Treatment Outcome

With MHG's treatment, Joe's MCHC levels normalised, which helped improve his mental health.

Testing homocysteine

Studies have shown that high homocysteine is a risk factor of heart disease (Ganguly, 2015; Wierzbicki, 2007).

The maximum value of homocysteine for normal is people is $<8 \mu\text{mol/l}$.

Before treatment – July 2017

Joe's homocysteine level was at $11.1 \mu\text{mol/l}$ and exceeded the maximum reference value by almost 39%. This suggested a high deficiency in Vitamin B, particularly Vitamin B12 and folic acid. Joe's low level of Vitamin D (22.5 ng/ml ; normal range 30-80) also increased the risk of osteoporosis.

STOFFWECHSEL/KHK

Test	Result	Unit	Reference Range / Result
Homocystein (SR)	11,1	$\mu\text{mol/l}$	<8 

OSTEOPOROSE

Test	Result	Unit	Reference Range / Result
Vitamin D (25-OH)	22,5	ng/ml	30 -80 

After treatment – November 2017

After four months of MHG treatments, Joe's homocysteine levels are reduced by 26% from $11.1 \mu\text{mol/l}$ to $8.2 \mu\text{mol/l}$, while his Vitamin D was raised 3.53 times.

STOFFWECHSEL/KHK

Test	Result	Unit	Reference Range / Result
Homocystein (SR)	8,2 <small>11,1(27.07.17)</small>	$\mu\text{mol/l}$	<8 

OSTEOPOROSE

Test	Result	Unit	Reference Range / Result
Vitamin D (25-OH)	102,0 <small>22,5(27.07.17)</small>	ng/ml	30 -80 

Treatment Outcome

This treatment outcome lowered Joe's risk of osteoporosis and heart disease by restoring Vitamin B and Vitamin D balance.

Testing systemic inflammation

Inflammation is a natural response, but if it turns chronic, silent inflammation can be responsible for causing other illnesses such as heart disease, cancer, diabetes, and Alzheimer's disease.

High Sensitivity CRP (HS-CRP) is a test we use to measure inflammation in our bodies. In terms of your risk of heart disease, it goes up if your HS-CRP level is measured above 3mg/l. A reading of 2mg/l is considered okay, with 1 mg/l being ideal.

Joe's inflammation levels were checked before and after treatment.

Before treatment - July 2017

INFLAMMATION/CHECK			
Test	Result	Unit	Reference Range / Result
Aktueller Entzündungstatus / akute Entzündung / Präaktivierung			
CRP high sensitiv	0,4	mg/l	<3 
<i>< 1 mg/l - Normal</i>			
<i>1 - 3 mg/l - mäßig erhöhtes Risiko</i>			
<i>> 3 mg/l - deutliches Risiko</i>			

Joe's inflammation level is good as his HS-CRP level is at 0.4 mg/l, which is within standard.

After treatment - October 2018

Joe's inflammation (HS-CRP) level improved with a reduction of 50% to 0.2 mg/l.

INFLAMMATION/CHECK			
Test	Result	Unit	Reference Range / Result
Aktueller Entzündungstatus / akute Entzündung / Präaktivierung			
CRP high sensitiv	<0,2 0,4(27.07.17)	mg/l	<3 
<i>< 1 mg/l - Normal</i>			
<i>1 - 3 mg/l - mäßig erhöhtes Risiko</i>			
<i>> 3 mg/l - deutliches Risiko</i>			

Treatment Outcome

During the treatment, Joe's HS-CRP markers reduced by 50%.

Health Outcome Summary

As a result of Joe's treatment at MHG, he experienced the following positive health outcomes:

- Improved mental health by improving his MCHC levels by 4%.
- Reduced risk of osteoporosis by raising Vit D 3.53 times.
- Lowered risk of heart disease by reducing homocysteine 26%.
- Inflammation level improved by a reduction of 50%.
- All symptoms showed signs of improvement.

References: Andropause Case Study

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Clinical Case Study

Burnout

Clinical Case Study

Burnout

What is burnout?

Burnout is a state of emotional, physical and mental exhaustion caused by excessive and prolonged stress (Smith et al., 2018).

Sufferers of burnout are 63% more likely to take sick leave, 2.6 times more likely to leave their current employer, 13% less confident in their performance, and 23% more likely to visit the emergency room (Wigert and Agrawal, 2018).

Common symptoms of burnout

The symptoms of burnout are different from stress, and it is important to know the difference so you get the right treatment.

BURNOUT	STRESS
• Disengagement	• Over engagement
• Blunted emotions	• Overactive emotions
• Feeling helpless and hopeless	• Feelings of urgency and hyperactivity
• Loss of motivation	• Loss of energy
• Leads to feelings of detachment and depression	• Leads to anxiety disorders
• Primary damage to emotions	• Primary damage is physical
• Feeling like life is not worth living	• May lead to premature death

(Smith et al, 2018)

Patient Background

Our study begins with a male, aged thirty, presenting to the MHG doctors with a range of symptoms that pointed to a diagnosis of burnout. Let's call him Jack.

Jack presented to MHG suffering from the following symptoms:

- Brain fog
- Lack of motivation
- Difficulty concentrating
- Exhaustion

Jack also had also previously used cannabis and had therapy for amphetamines.

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests and continued to administer treatments. The treatment protocol that Jack undertook was as follows:

- June 2018: Three types of oral supplements
- November 2018: Twelve types of oral supplements

The results of the diagnostic tests and treatments are listed in the following pages.

Blood Test and Treatment

Testing blood ferritin levels

Ferritin is a protein that contains iron and is the primary form of iron stored inside of the cells (AACC, 2018).

The reference range of ferritin is between 30-400 ng/ml.

Jack's ferritin level is at 114 ng/ml, which is considered safe. This suggests his symptoms of anaemia are NOT induced by iron deficiency.

Constant fatigue from signs of anaemia are NOT induced by iron deficiency.

Test	Result	Unit	Reference Range / Result
Eisen	92	µl/dl	59 - 158 
Ferritin	114	ng/ml	30 - 400 
<i>Der Zielbereich liegt bei > 35 ng/ml</i>			
Hepcidin (S)	34,1	ng/ml	1,5 - 41,5 
<i>Bitte beachten Sie die geänderte/n Normwerte u/o Einget.</i>			
Transferrin	221	mg/dl	200 - 360 
Transferrin-Sättigung	30	%	16 - 45 
Losl. Transferrinrezept. (sTfR)	2,40	µl/ml	2,2 - 5,0 

Testing red blood cell distribution width

Red Blood Cell Distribution Width (RDW) is a measurement of the range in the volume and size of red blood cells (Medline Plus, 2018). RDW tests help to diagnose types of anaemia and other medical conditions (Healthline, 2017).

The reference range of RDW is 11-16%.

Before treatment – March 2018

When first tested, Jack's RDW is at 10.8%, which is lower than the minimum reference value. This indicates signs of anaemia.

Test	Result	Unit	
Hämotologie			
Hämoglobin (12)	9.1	mmol/l	
Hämatokrit (12)	41.2	%	
Leukozyten (12)	6.1	Gpt/l	
Erythrozyten	4.8	Tpt/l	
MCV-Erythrozytenvolumen (12)	86.5	fl	
MCH-Hämoglobingehalt d.Erythr. (12)	1.9	fmoI	
MCHC-mitti.Korpusk.Hämoglobinkon (12)	22.1	mmol/l	
RDW-Erythrozytenverteilungsbreite (12)	-	10.8	%

After first treatment - June 2018

After his first treatment, Jacks' RDW improves by 18.5% and reaches 12.8%, pushing into the low side of the safe reference range of 11-16%.

Test	Result	Unit	Reference Range	Visual
RDW (Ery)	12,8	%	10 - 16	
Thrombozyten	183	TSND/µl	140 - 400	
Leukozyten	7,2	/nl	4 - 10	
MPV	10,8	fl	7,8 - 11,5	

After second treatment - November 2018

Test	Result	Unit	Reference Range / Result	Visual
RDW (Ery)	13,1 <small>12,8(27.06.18)</small>	%	10 - 16	
Thrombozyten	193 <small>183(27.06.18)</small>	TSND/µl	140 - 400	
Leukozyten	4,8 <small>7,2(27.06.18)</small>	/nl	4 - 10	
MPV	10,9 <small>10,8(27.06.18)</small>	fl	7,8 - 11,5	

Eight months later, following further MHG treatments, Jack's RDW was 13.1%, a total increase of 21%, and back within the normal reference range. This increase improved his symptoms of anaemia.

Testing micronutrient levels

To determine the root causes of Jack's symptoms, his levels of micronutrients were assessed. This included looking at his magnesium, calcium, selenium, zinc and iron (eisen) levels.

The results below show a positive balance in Jack's micronutrient capacity. They are all within range.

Test	Result	Unit	Reference Range / Result	Visual
VITALSTOFFE				
Magnesium (VB)	1,67	mmol/l	1,29 - 1,69	
Calcium (S)	2,45	mmol/l	2,13 - 2,53	
<i>Serum-Calcium unterliegt einer sehr hohen Proteinbindung. Proteingebundenes Calcium ist biologisch nicht aktiv, darum erfolgt bei erhöhten Serum-Eiweiß-Konzentrationen einer rechnerische Korrektur des gemessenen Ca-Wertes, bezogen auf 4g/dl Albumin bzw. 7,76 g/dl Gesamteiweiß.</i>				
Calcium (VB)	1,58	mmol/l	1,14 - 1,68	
Selen (VB)	152,0	µg/l	121 - 168	
Zink (VB)	661	µg/dl	400 - 750	
Eisen (VB)	450,0	µg/l	440 - 500	

Creatinine levels

A high creatinine level indicates signs of impaired kidney function. Creatinine is the most common used indicator of renal (kidney) function (Human Metabolome Database, 2018).

The reference range of creatinine is 40-160 mg/dl.

Jack's level of creatinine is 239 mg/dl. This is very high and an early indicator of impaired kidney function.

BASISCHECKUPS

Test	Result	Unit	Reference Range / Result
Kreatinin (2MU)	239,0	mg/dl	40 - 160 

Testing hormones and neurotransmitters

Adrenaline is a hormone released from the adrenal glands and its major action, together with noradrenaline is to prepare the body for 'fight or flight' response (Society of Endocrinology, 2018). Serotonin is a neurotransmitter that regulates mood, social behaviour, appetite, digestion, sleep, memory, and sexual desire (McIntosh, 2018).

The reference range is as follows:

- Adrenalin 4-10 µg/g Krea
- Noradrenalin 32-58 µg/g Krea
- Serotonin 148-230 µg/g Krea

NEUROSTRESS

Test	Result	Unit	Reference Range / Result
Neurostress Profil			
Adrenalin (MU2)	5,4	µg/g Krea	4 - 10 
Noradrenalin (MU2)	22,5	µg/g Krea	32 - 58 
Norad/Adrenalin-Quot	4,2	Quotient	3 - 6 
Dopamin (MU2)	159,2	µg/g Krea	90 - 220 
Serotonin (MU2)	100,3	µg/g Krea	148 - 230 

The low levels of adrenalin, noradrenalin and serotonin explain why Jack is fatigued and has a lack of motivation.

Causes of fatigue and lack of motivation: Low adrenalin, serotonin and noradrenalin.

No viral infection

Jack's long-standing fatigue could be caused by hidden chronic viral infections. In determining the root causes of the patient's symptoms, viral infections are assessed. However, the below lab results show that the patient is free from virus infection.

Test	Result	Reference
Erreger DNA/RNA		
Profil Herpesvirus	negativ	negativ
HSV1-DNA (SP)	negativ	negativ
HSV2-DNA (SP)	negativ	negativ
HHV6-DNA (SP)	negativ	negativ
CMV-DNA (SP)	negativ	negativ
VZV-DNA (SP)	negativ	negativ
EBV-DNA (SP)	negativ	negativ

Testing inflammation - CRP

C-Reactive Protein (CRP) is a substance produced by the liver in response to inflammation (Marcin, 2017).

The reference range of CRP is <3 mg/l.

Before treatment - March 2018

Jack's CRP level is 82.3 mg/l, which exceeds the maximum reference value by 27.5 times and shows that his body is largely inflamed.

Entzündung			
Test	Unit	Reference Range / Result	
CrP (11)	+	82,3	mg/l
Hormone			
TSH basal (11)	+	4,82	mU/l

After first treatment - June 2018

After three months of MHG treatment, Jack's CRP level reduced by 98% and returned to normal at 1.5 mg/l.

INFLAMMATION/CHECK				
Test	Result	Unit	Reference Range / Result	
Aktueller Entzündungstatus / akute Entzündung / Präaktivierung				
CRP high sensitiv	1,5	mg/l	<3	
<i>< 1 mg/l - Normal</i>				
<i>1 - 3 mg/l - mäßig erhöhtes Risiko</i>				
<i>> 3 mg/l - deutliches Risiko</i>				

Treatment Outcome

This 98% reduction in CRP level reflects that the patient's inflammation has been immensely improved by the MHG treatment.

Testing monocyte levels

A monocyte is a type of white blood cell responsible for the attack and breakdown of germs and bacteria that enters the body (Smith, 2018).

The reference range of monocyte is between 2 - 12%.

Before treatment - March 2018

Jack’s monocyte level was 15.9%, exceeding the reference range by 32.5%. The high levels of monocytes indicates the presence of a chronic infection (Smith, 2018).

After first treatment - June 2018

After the first treatment, Jack’s monocyte level is reduced by 60%. It is down to 6.4%, and well within the healthy reference range.

Test	Result	Unit	Reference Range / Result
Monozyten	6,4	%	2 - 12 
Granulozytenzahl abs	5,25	/nl	1,5 - 7,7 
Lymphozytenzahl abs	1,42	/nl	1,1 - 4,5 
Monozytenzahl afs	0,46	/nl	0,10 - 0,90 

After second treatment - November 2018

By the end of the second treatment, Jack’s monocyte level has stabilised to a healthy 7.4%.

Test	Result	Unit	Reference Range / Result
Monozyten	7,4 <i>6,4(27.06.18)</i>	%	2 - 12 
Granulozytenzahl abs	2,61 <i>5,25(27.06.18)</i>	/nl	1,5 - 7,7 
Lymphozytenzahl abs	1,66 <i>1,42(27.06.18)</i>	/nl	1,1 - 4,5 
Monozytenzahl afs	0,35 <i>0,46(27.06.18)</i>	/nl	0,10 - 0,90 

Treatment Outcome

The Miskawaan treatments have alleviated infection by reducing the number of monocytes in Jack’s body by 53.4%.

Testing mean corpuscular haemoglobin concentration

Mean corpuscular haemoglobin concentration (MCHC) refers to the average haemoglobin in the red blood cells. Haemoglobin is the protein molecule that carries oxygen to the tissues within the body.

The normal healthy range for MCHC is between 33-36 g/dl.

Before treatment - June 2018

Jack's MCHC is a little under the standard healthy range at 32.0 g/dl, suggesting that he has signs of deficiency in Vitamin B12.

KLEINES BLUTBILD

Test	Result	Unit	Reference Range / Result	
Erythrozyten	5,17	/pl	4,3 - 5,8	
Hämoglobin	15,5	g/dl	14 - 17,5	
HBE (MCH)	30,0	pg	27 - 33,5	
MCV	94	fl	80 - 98	
Hämatokrit	49,5	%	39,5 - 50,5	
MCHC	32,0	g/dl	33 - 36	
RDW (Ery)	12,8	%	11 - 16	

After treatment - November 2018

After treatment, Jack's MCHC level improved, increasing 0.5 g/dl within five months.

KLEINES BLUTBILD

Test	Result	Unit	Reference Range / Result	
Erythrozyten	5,10	/pl	4,3 - 5,8	
Hämoglobin	15,2	g/dl	14 - 17,5	
HBE (MCH)	29,8	pg	27 - 33,5	
MCV	92	fl	80 - 98	
Hämatokrit	46,8	%	39,5 - 50,5	
MCHC	32,5	g/dl	33 - 36	

Treatment Outcome

Jack saw an increase in his MCHC value by 0.5g/dl from the Miskawaan therapies. This improved MCHC level allowed for more efficient oxygen delivery to tissues with a subsequent reduction in his fatigue and his perceived increase in strength.

Testing for thyroid stimulating hormone (TSH)

TSH is commonly used as an indicator to measure thyroid function (Medline Plus, 2017).

An elevated TSH indicates inadequate levels of effective thyroid hormone.

The reference range of TSH is between 0.35-2.5 µU/ml.

After first treatment - June 2018

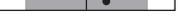
Jack's TSH level was first measured at 2.82 µU/ml. This exceeds the maximum value in the health reference range by 13%, indicating increased risk of hypothyroidism.

Test	Result	Unit	Reference Range / Result
TSH	2,82	µU/ml	0,35 - 2,5 
freies T3	3,68	pg/ml	2,0 - 4,4 
freies T4	1,44	ng/dl	0,98 - 1,7 
ft3/ft4 Quotient	0,26	Ratio	0,24 - 0,48 
Mikrosomale-AK/TPO-AK	<10,00	IU/ml	<35 
Pregnenolonsulfat (S)	50,6	µg/l	45 - 150 

Unter Substitution: erfolgt die Blutabnahme 3-5 Stunden nach der Einnahme, liegt der Zielbereich zwischen 150-300 µg/l.

After second treatment - November 2018

When tested again after the second round of treatment, Jack's TSH level fell to 1.79 µU/ml, which is in the healthy reference range. This is a reduction of 36.5% within five months.

Test	Result	Unit	Reference Range / Result
TSH	1,79 <small>2,82(27.06.18)</small>	µU/ml	0,35 - 2,5 
freies T3	3,03 <small>3,68(27.06.18)</small>	pg/ml	1,88 - 3,18 
freies T4	1,12 <small>1,44(27.06.18)</small>	ng/dl	0,7 - 1,48 
ft3/ft4 Quotient	0,27 <small>0,26(27.06.18)</small>	Ratio	0,24 - 0,48 
IGF-1	190,0	ng/ml	71,2 - 234 
SHBG	41,6	nmol/l	10 - 57 

Treatment Outcome

By undergoing MHG treatment for his increased TSH levels, Jack reduced his TSH level by 36.5%, bringing it back into the healthy range. He also reduced his risk of hypothyroidism and normalised his thyroid hormone function.

Testing the immune system: Interferon Gamma

Interferon Gamma (IFN-gamma) is a cytokine that plays an important role in inducing and modulating an array of immune responses by promoting macrophage activation (Tau & Rothman, 1999).

The reference values are:

- IFN-gamma Kultur 1 is >200 pg/ml.
- IFN-gamma Kultur 2 is >10 pg/ml.

After first treatment - June 2018

After the first treatment, Jack’s interferon gamma levels were measured. His IFN-gamma Kultur 1 was measured at 105.8pg/ml, which is 47.1% less than the minimum reference value, while his IFN-gamma Kultur 2 was at 9.2pg/ml, which is 0.8pg/ml less than the minimum reference value.

Low IFN-gamma indicates weak immune response.

Test	Result	Unit	Reference Range / Result
IL2m Kultur 1	371,4	pg/ml	>100 
IL10m Kultur 1	198,2	pg/ml	>50 
IFN-gamma Kultur 1	105,8	pg/ml	>200 
AG-Kontrolle	Influenza		
IL-2m Kultur 2	19,7	pg/ml	>15 
IL-10m Kultur 2	28,9	pg/ml	<10 
INF-gamma Kultur 2	9,2	pg/ml	>10 

After second treatment - November 2018

After the second MHG treatment, Jack’s IFN-gamma Kultur 1 increases from 5.7 pg/ml to 111.5pg/ml, while his IFN-gamma Kultur 2 increased from 9.2 g/ml to 230.2 g/ml.

Test	Result	Unit	Reference Range / Result
IL2m Kultur 1	112,3 <small>371,4(27.06.18)</small>	pg/ml	>100 
IL10m Kultur 1	345 <small>198,2(27.06.18)</small>	pg/ml	>50 
IFN-gamma Kultur 1	111,5 <small>105,8(27.06.18)</small>	pg/ml	>200 
AG-Kontrolle	Influenza <small>Influenza(27.06.18)</small>		
IL-2m Kultur 2	175,8 <small>19,7(27.06.18)</small>	pg/ml	>15 
IL-10m Kultur 2	3,2 <small>28,9(27.06.18)</small>	pg/ml	<10 
INF-gamma Kultur 2	230,2 <small>9,2(27.06.18)</small>	pg/ml	>10 

Treatment Outcome

The increase on in both IFN-gamma Kultur 1 and IFN-gamma Kultur 2 levels indicate Jack is rebuilding a stronger immune system with more efficient immune responses.

Testing the inflammation response: TNF-alpha

Tumour Necrosis Factor Alpha (TNF-alpha) is an inflammatory cytokine produced by macrophages and monocytes during acute inflammation (Idriss & Naismith, 2000).

The reference range for TNF-alpha stimulated is between 200-1000 pg/ml.

After first treatment - June 2018

After the first treatment, Jack's TNF-alpha stimulated level is 59 pg/ml. This is 70.5% lower than the minimum reference value and is due to previous therapy with amphetamine.

Studies show that low TNF-alpha may increase disease aggravation and defective T-cell maturation (Utheim, 2014).

Test	Result	Unit	Reference Range / Result
IL-1 (VB) stimuliert	9	pg/ml	1000 - 4000 
alpha-TNF (VB) stimuliert	59	pg/ml	200 - 1000 
IL-10 (VB) stimuliert	0	pg/ml	200 - 500 

After second treatment – November 2018

After the second treatment, Jack's TNF-alpha stimulated levels were taken again and were 3,945 pg/ml, improving 65.9 times, and returning to within the normal healthy range.

Test	Result	Unit	Reference Range / Result
IL-1 (VB) stimuliert	3641 <small>9(27.06.18)</small>	pg/ml	1000 - 4000 
alpha-TNF (VB) stimuliert	3945 <small>69(27.06.18)</small>	pg/ml	200 - 1000 
IL-10 (VB) stimuliert	849 <small>1(27.06.18)</small>	pg/ml	200 - 500 

Treatment Outcome

The improvement in TNF-alpha levels shows an improved inflammatory response and reflects that Jack is more protected against infections, injury, virus, and bacteria.

Testing the immune system: interleukin 1 beta

Interleukin 1 beta (IL-1b) is a mediator of inflammatory responses and involves cell growth and differentiation (Ren & Torres, 2008).

The reference range for IL-1b is between 1000-4000 pg/ml.

After first treatment - June 2018

After the first treatment, Jack's IL-1b level was at 9pg/ml, which is very low at 991 pg/ml less than the minimum healthy reference value.

This result is considered to be from previous therapy with amphetamines like Ritalin. Low IL-1b indicates poor mediation of inflammatory responses and inefficient cell growth.

Test	Result	Unit	Reference Range / Result
IL-1 (VB) stimuliert	9	pg/ml	1000 - 4000
alpha-TNF (VB) stimuliert	59	pg/ml	200 - 1000
IL-10 (VB) stimuliert	0	pg/ml	200 - 500

After second treatment - November 2018

After the second treatment, Jack's IL-1b level was measured at 3,641pg/ml. This is an improvement of 99.7%, returning to within the healthy reference range.

Test	Result	Unit	Reference Range / Result
IL-1 (VB) stimuliert	3641 <small>9(27.06.18)</small>	pg/ml	1000 - 4000
alpha-TNF (VB) stimuliert	3945 <small>68(27.06.18)</small>	pg/ml	200 - 1000
IL-10 (VB) stimuliert	849 <small>1(27.06.18)</small>	pg/ml	200 - 500

Treatment Outcome

The treatment resulted in an improved immune system via elevated IL-1b by 99.7%. This also represents an overall improvement in Jack's innate immune system.

Treatment Outcomes

After first treatment - June 2018

- Treated with three types of MHG supplements.

Treatment Outcome

- Improved symptoms of anaemia by increasing RDW by 18.5%.
- Improved inflammation indicated by a 98% reduction of CRP.
- Alleviated infection by reduction of monocytes by 60%.

After second treatment - November 2018

- Twelve types of supplements.

Treatment Outcome

- Improved symptoms of anaemia by increasing RDW by 21%.
- Alleviated infection by reduction of monocytes by 53.4%.
- Strength restored due to elevated MCHC value increasing to 0.5g/dl.
- Reduced risk of hypothyroidism by reducing TSH level by 36.5%.
- Rebuilt stronger immune system by elevating IFN-gamma levels.
- Improved inflammatory response by elevating TNF-alpha by 65.9 times.
- Improved immune system by elevating IL-1b by 99.7%.

Health Outcome Summary

- Improved symptoms of anaemia.
- Reduction in inflammation.
- Alleviated infection.
- Fatigue reduced and strength restored.
- Reduced risk of hypothyroidism.
- Rebuilt stronger immune system.

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CANCER CLINICAL CASE STUDIES

CANCER CLINICAL CASE STUDIES

What is cancer?

Cancer is a disease in which abnormal cells divide without control and can invade nearby tissues (National Cancer Institute, 2018).

Cancer Clinical Case Study 1

Unidentified Tumour on Patient's Scalp

Cancer Clinical Case Study 1

Unidentified Tumour on Patient's Scalp

Patient Background

In February 2016, John, a fifty-year-old male, presented to MHG with an unidentified tumour on his scalp.

John was in the Russian Air Force, where he was a victim of a plane crash. He sustained an injury where his arm and shoulder were badly injured. It took him a year to recover. In 2016, an unidentified tumour developed on his scalp, which kept growing prior to him receiving Dr Wessolly's treatment.

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests and continued to administer treatments. The treatment protocol that John undertook was two-fold with the first and second treatments involving:

- Thirteen types of oral supplements;
- Seven unique ingredients for IV infusions; and
- Six different injections.

The results of the diagnostic tests and treatments are in the following pages.

Blood Tests and Treatment

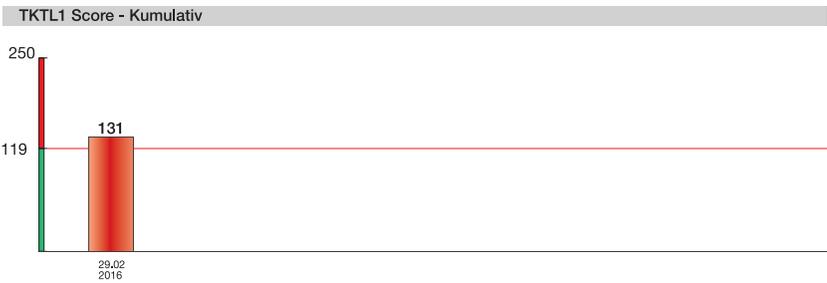
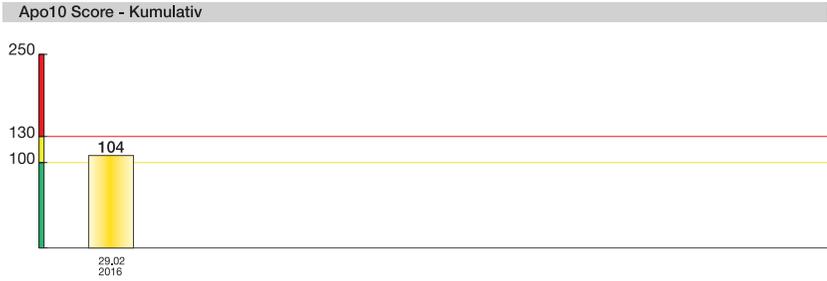
Testing malignant tumour (TKTL1)

The overexpression of TKTL1 is associated with the switch in metabolic pathway from oxidative to non-oxidative in tumours (Lange et al, 2012). Malignant tumour cells usually divide without control and can invade nearby tissues (National Cancer Institute, 2018).

The normal range for TKTL1 score is <119.

John's elevated TKTL1 score of 131 suggests that it is likely to be a malignant tumour (see results).

Test	Result	Reference Range / Result
Tumormarker		
Apo10 Score	104	< 100 < 130 
TKTL1 Score	131	< 119 



Testing for Epstein-Barr Virus (EBV)

EBV is a type of herpes virus that can easily be spread from person to person through saliva. This can be by coughing, sneezing, kissing, or by sharing drinks or eating utensils (American Cancer Society, 2016). It is one of the most common types of herpes viruses with around 90% of adults infected. This type of virus encourages tumour development (American Cancer Society, 2016) and it is estimated that around 200,000 cancer cases are attributable to EBV each year (Australian Academy of Science, 2022).

The normal reference of EBV is below 3000 Kop/ml.

John’s concentration of Epstein-Barr Virus was found to be very high in his saliva. When first measured, it was 7.7 times more than the maximum for non-infected people.

NK-Zellfunktion			
Test	Result	Unit	Reference Range / Result
NK-Check®			
NK/Ctx: basal	21	% K562	>20 
NK/Ctx: IL-2 stim	26	% K562	>35 
NK-Zellen CD69 basal	3	% NK	
NK-Zellen CD 69 IL2	40	% NK	

INFEKTIONEN			
Test	Result	Unit	Reference Range / Result
Aspergillus fumigatus IgG-EIA	18	U/ml	<12 
Aspergillus fumigatus IgG-EIA	1	U/ml	<12 
Aspergillus fumigatus IgG-EIA	1	U/ml	<12 

Erreger DNA/RNA			
Test	Result	Unit	Reference Range / Result
EBV DNA (PCR: Speichel)	23300	Kop/ml	<3000 

Treatment for scalp tumour

- Six types of ingredients for multiple Injections.
- Thirteen oral supplements.
- Seven unique combinations of ingredients of IV MHG proprietary infusions.

Treatment Outcomes

Before treatment

Before treatment, the tumour on John’s scalp was solid but did not penetrate to his bone. Under a microscope, it showed abnormal cells forming under the dark field.

After second treatment

After treatment, the tumour had shrunk to less than half of the initial size. John had planned for his third treatment, but he had problems getting a visa as he lived in a war-torn area of Ukraine at that time.



Cancer Clinical Case Study 2

Breast Cancer Relapse

Cancer Clinical Case Study 2

Breast Cancer Relapse

Patient Background

In November 2017, Jill, a female aged 64, presented to MHG. She had suffered breast cancer seven years before, had recovered, but then continued to suffer multiple (eight) relapses. Throughout her relapses, she had received chemotherapy multiple times.

When she presented to MHG, the relapsed tumour mass was ten centimetres in diameter and one centimetre thick. The tumour was causing Jill pain, a depressed mood and exhaustion.

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests and continued to administer treatments.

Blood Test and Treatment

Testing TKTL1 score: not a malignant tumour

The overexpression of TKTL1 is associated with the switch in metabolic pathway from oxidative to non-oxidative in tumours (Lange et al, 2012). Malignant tumour cells usually divide without control and can invade nearby tissues (National Cancer Institute, 2018).

The normal range for TKTL1 score is <119 .

Jill's low TKTL1 score of 101 (see results) suggests that the tumour is unlikely to undergo metastasis, which means it is unlikely to spread to other sites.

Test	Result	Reference Range / Result
Apo10 Score	115	$< 100 < 130$ 
TKTL1 Score	101	< 119 

Apo10 Score - Kumulativ



TKTL1 Score - Kumulativ



Testing patient's Natural Killer Cell (NK) profile

Natural killer (NK) cells are lymphocytes that have the ability to kill tumour cells and virus infection (Advances in Cancer Research, 2003).

Jill's natural killer (NK) cell profile (see diagram below) suggests that her NK cells are limited to defend her against the tumour cells. By improving her NK cell profile, it will allow Jill to fight off the tumour cells with her own immunity.

INFLAMMATION / CHECK

Test	Result	Unit	Reference Range / Result
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Aktueller Entzündungstatus/ akute Entzündung / Präaktivierung

CRP high sensitiv	0.3	mg/	<3	
<i><1 mg/L - Normal</i>				
<i>1-3 ng/L - n��big erh��htes Risiko</i>				
<i>>3 mg/L - deutliches Risiko</i>				

NK-Zellfunktion

Test	Result	Unit	Reference Range / Result
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NK-Check  

NK/Ctx: basal	21	% K562	>20	
NK/Ctx: IL-2 stim	23	% K562	>35	
NK-Zellen CD69 basal	3	% NK	<8	
NK-Zellen CD 69 IL2	13	% NK	>35	

Treatment for breast cancer relapse

Jill received the following MHG treatments:

- A combination of two ingredients given via IV infusion.
- Six types of oral supplements.
- A prescribed ketogenic diet.

Health Outcome Summary

The outcome from the treatments were:

- The tumour mass became unnoticeable.
- The tissue was no longer solid.
- There were no side effects from the treatment.
- There was no pain.
- The patient's health was restored and her strength regained.

Cancer Clinical Case Study 3

Breast Cancer Rehabilitation

Cancer Clinical Case Study 3

Breast Cancer Rehabilitation

Patient Background

In December 2010, Janice, a female aged 55, who was struggling with her recovery from breast cancer presented to MHG.

Earlier in 2010, Janice had received surgery as part of her breast cancer treatment where she had fifteen lymph nodes removed, after which she received a radiation treatment regime totalling thirty sessions. Due to a lengthy treatment protocol, Janice developed sleep disturbance, depression, joint pain, and exhaustion. She was struggling to recover not only from the breast cancer, but also from the breast cancer treatments.

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests and continued to administer treatments. The treatment protocol that Janice undertook was two-fold with the first and second treatments involving:

- Eleven types of oral supplements.
- A ketogenic diet.

The results of the diagnostic tests and treatments are listed below.

Blood Test and Treatment

Testing for hormones and neurotransmitters

Neurotransmitter are released by neurons to stimulate neighbouring neurons, muscles, or gland cells, allowing impulses to pass from one cell to another throughout the nervous system (Encyclopedia Britannica, 2019).

Janice's pathology results showed that neurotransmitters (i.e., noradrenalin, dopamine and serotonin) were low, presenting outside the normal reference range (see below).

- Reference range for noradrenalin: 32-58 µg/g Krea Janice's was 26.5 (low)
- Reference range for dopamine: 150-280 µg/g Krea Janice's was 89.0 (low)
- Reference range for serotonin: 148-230 µg/g Krea Janice's was 124 (low)

The hormones DHEA, adrenaline and cortisol are also outside the health reference range (see below).

- Reference range for adrenaline: 4-10 µg/g Krea Janice's was 3.9 (low)
- Reference range for cortisol: 3-10 ng/ml Janice's was 2.39 (low)
- Reference range for DHEA: 75-235 pg/ml Janice's was 534 (high)

Neurostress Profil

Test	Result	Unit	Reference Range / Result
Kreatinin (2.M)	163	mg/dl	40 - 160
<i>Erfahrungsbereich für 2. Morgenurin, kein Normbereich</i>			
Adrenalin (MU2)	3,9	µg/g Krea	4 - 10
Noradrenalin (MU2)	26,5	µg/g Krea	32 - 58
Norad/Adrenalin-Quot	6,9	Quotient	3 - 6
Dopamin (MU2)	89,0	µg/g Krea	150 - 280
Serotonin (MU2)	124	µg/g Krea	148 - 230
Cortisol Speichel 0 (7:15h)	2,39	ng/ml	3 - 10
Cortisol Speichel 2 (12:00h)	1,71	ng/ml	1,5 - 5,0
Cortisol Speichel 4 (20:00h)	1,20	ng/ml	0,5 - 1,8
DHEA Speichel 1 (7:15h)	534	pg/ml	75 - 235
<i>Hormonersatztherapie (HRT): Frauen</i>			
<i>Männer</i>			
Oral (5-10mg)	80 - 240 pg/mL	120 - 335 pg/mL	
Dermal (5mg)	105 - 300 pg/mL	135 - 400 pg/mL	
DHEA Speichel 2 (20:00h)	103	pg/ml	45 - 139

It was determined that low levels of neurotransmitters and hormones were the major causes of Janice's morning exhaustion and were the reason she was experiencing symptoms of depression.

Testing T-cell count

A T-cell or T lymphocyte is an essential part of the immune system. It is a type of white blood cell that responds and focuses on attacking specific foreign bodies or antigens such as viruses.

The normal range of T-cell count is 920- 2580/ μ l.

Before treatment - December 2010

Before treatment, Janice's T-cell count was 101/ μ l (very low), which is 89% less than the minimum healthy reference value (920). This is due to multiple radiation treatments that weakened her immune system.

Test	Result	Unit	Reference Range / Result
Monozyten	20	/ μ l	140 - 800
Mono %	3	%	2 - 14
Granulozyten	570	/ μ l	2400 - 7400
Granulo %	75	%	42 - 75
T-Zellen absolut	101	/ μ l	920 - 2580
T-Zellen relativ	63	% Lympho	60 - 84

After treatment - May 2012

After the first treatment, Janice's T-cell count showed improvement and returned to within the normal range, presenting at 1345/ μ l.

Test	Result	Unit	Reference Range / Result	
Monozyten	410	640	/ μ l	140 - 800
Mono %	6	10	%	2 - 14
Granulozyten	4580	4120	/ μ l	2400 - 7400
Granulo %	64	63	%	42 - 75
T-Zellen absolut	1345	1010	/ μ l	920 - 2580
T-Zellen relativ	66	60	% Lympho	60 - 84

After treatment - April 2013

After the second treatment, Janice's T-cell count stabilised to be within the normal range at 1138 / μ l.

Test	Result	Unit	Reference Range / Result	
Monozyten	440	/ μ l	140 - 800	
Mono %	8	%	2 - 14	
Granulozyten	2930	/ μ l	2400 - 7400	
Granulo %	54	%	42 - 75	
T-Zellen absolut	1138	/ μ l	920 - 2580	
T-Zellen relativ	58	% Lympho	60 - 84	

Treatment Outcome

Compared to her initial T-cell count prior to treatment, after the two treatments her T-cell count improved by 11.3 times the original amount and returned to the normal range.

Testing Natural Killer cells (NK cells)

Natural killer cells are lymphocytes that can kill tumour cells, or cells infected with a virus. NK cells serve a critical role in the innate immune system (Advances Cancer Research, 2003).

The normal range of NK-cell count is between 100-600/ μ l.

Before treatment - December 2010

Before treatment, Janice's NK-cell count was only 41/ μ l (very low), which is 59% less than the minimum reference value.

Test	Result	Unit	Reference Range / Result	
NK-Effektorzellen	92	%NK	85 - 95	
NK-Zellen (absolut)	41	/ μ l	100 - 600	
NK-Regulatorzellen	8	%NK	5 - 15	
NK-Zellen (relativ)	25	% Lympho	6 - 29	

After treatment - April 2013

After treatment, Janice's NK cell count improved to 10.4 times the previous level to 429/ μ l, which is within the normal range.

Test	Result	Unit	Reference Range / Result		
CTL (cytotoxische T-Zellen)	83	113	/ μ l	10 - 190	
cytotoxische T-Zellen relativ	7	12	%CD3	1 - 11	
NK-Zellen (absolut)	429	169	/ μ l	100 - 600	
NK-Zellen (relativ)	21	10	% Lympho	6 - 29	

Treatment Outcome

Improved Natural Killer (NK) cell count by 10.4 times.

Treatment

Janice's breast cancer recovery treatment entailed the following:

- Eleven types of Miskawaan Health supplements.
- Prescribed ketogenic diet.

Treatment Outcomes

After her MHG treatments, Janice's T-cell count normalised, increasing 11.3 times to 1138/ μ l, while her NK cell count normalised by elevating 10.4 times, increasing to 429/ μ l.

Follow up testing

Testing malignant tumour (TKTL1)

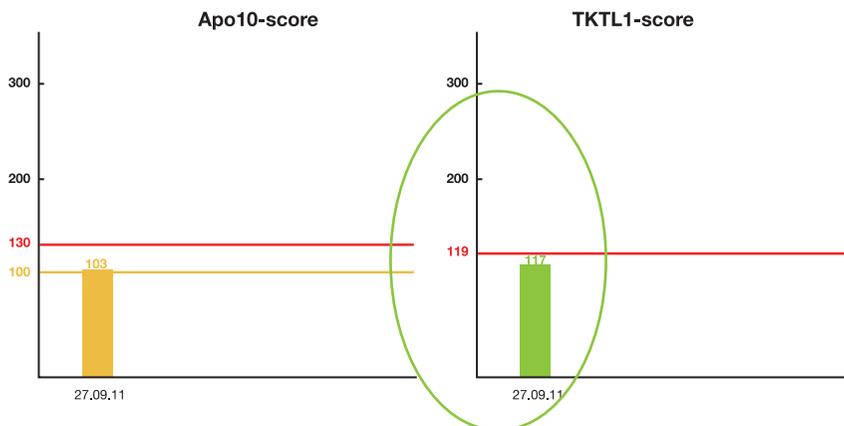
Approximately one and 2.5 years after initial treatment, follow up testing for TKTL1 markers was undertaken. This was to ascertain tumour status.

The overexpression of TKTL1 is associated with the switch in metabolic pathway from oxidative to non-oxidative in tumours (Lange et al, 2012). Malignant tumour cells usually divide without control and can invade nearby tissues (National Cancer Institute, 2018).

The normal range for TKTL1 score is <119.

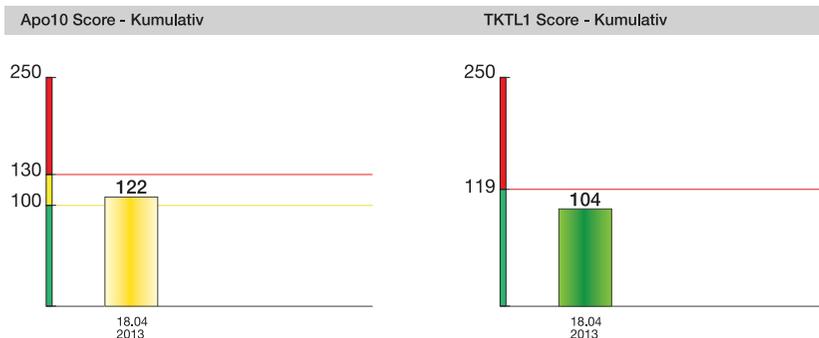
One year later - September 2011

Measured TKTL1 levels are at 117. No tumour cells were found as TKTL1 levels remain under 119.



2.5 years later - April 2013

TKTL1 was measured again and remained at normal level (104), below 119, with no signs of invasive cancer cells.



Testing oestradiol: April 2013 (2.5 years later)

In addition, Janice's oestradiol levels were also checked (see below) and no excessive rise in levels was detected.

Janice was also advised to take 7-keto DHEA to benefit her immune system and mental wellbeing. It was also recommended that she take Vitamin D despite her blood levels being very good. This was recommended for her long-term health benefits, particularly for osteoporosis prevention.

HORMONE

Test	Result	Unit	Reference Range / Result
SHBG	66,0	nmol/l	17,1 - 108,2
Oestradiol (E2)	14,7	pg/ml	20 - 60
<i>Oestradiol Normbereiche Serum (pg/ml)</i>			
<i>Follikelphase (1. - 4.Tag): 30 - 120</i>			
<i>Follikelphase (5. - 11.Tag): 60 - 160</i>			
<i>Zyklusmitte: 90 - 480</i>			
<i>Lutealphase: 45 - 210</i>			
<i>Postmenopause: 20 - 60</i>			
<i>Substitution: < 100</i>			
Testosteron	0,15	ng/ml	0,03 - 0,41
DHEAS	115,00	ug/dl	40 - 200

OSTEOPOROSE

Test	Result	Unit	Reference Range / Result
Vitamin D (25-OH)	99,6	ng/ml	30 - 80

Health Outcome Summary

- Janice was able to cease taking the breast cancer drug Tamoxifen.
- No tumour cells were found after treatment.
- Treatment improved patients' immune system by elevating T-Cells and B-cells.
- Overall, her mental and physical health returned to normal.
- Janice now visits MHG's Dr Wessolly twice a year for a check-up.

**Cancer Clinical
Case Study 4
Multiple Metastasis
from
uterus carcinoma**

Cancer Clinical Case Study 4

Multiple Metastasis from uterus carcinoma

Patient Background

In Feb 2016, Jackie, a 29-year-old female, presented to MHG doctors with multiple metastasis from a uterus carcinoma in her pelvis. The neuroendocrine tumour had metastasised and spread to the mediastinum, liver and lungs. She also presented with swollen legs and lymph congestion. The compression, caused by tumour mass, resulted in lymph congestion and led to swollen legs. Before visiting Dr Wessolly, Jackie had multiple operations and chemotherapy.

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests and continued to administer treatments. The treatment protocol that Jackie undertook was two-fold with the first and second treatments involving:

- MHG proprietary parenteral blend with three key ingredients.
- IV infusions of seven natural ingredients.

The results of the diagnostic tests and treatments are in the following pages.

Blood Test and Treatment

Testing creatinine levels

Creatinine is a waste product of the wear and tear on muscles (National Kidney Foundation, 2017). The normal range of creatinine level is between 0.66-1.09 mg/dl.

Before treatment - August 2017

Before treatment, and due to previous operations and chemotherapy, Jackie returned a high creatinine level of 2.77mg/dl. This exceeded the maximum healthy reference range by 2.5 times.

Research shows high levels of creatinine is associated with serious kidney impairment and Jackie's previous doctor advised her that she would have to undergo dialysis for the remainder of her life.

STOFFWECHSEL/KHK			
Test	Result	Unit	Reference Range / Result
Kreatinin (S)	2,77	mg/dl	0,66 - 1,09 
Glomeruläre Filtrationsrate (GFR) 24,3	24,3	ml/min	>90 
<i>Die Berechnung der GFR erfolgt seit 25.11.15 auf der Grundlage der nach IFCC-Standardisierung gemessenen Cystatin-C-Konzentration.</i>			
Hamstoff	86	mg/dl	15 - 39 
Cystatin C	2,61	mg/l	0,62 - 1,20 

After treatment - October 2017

After treatment, Jackie's creatinine level has a 15% drop to 2.35mg/dl, which showed signs of kidney recovery.

Test	Result	Unit	Reference Range / Result
Kreatinin (S)	2,35	mg/dl	0,66 - 1,09
Glomeruläre Filtrationsrate (GFR) 24,3	26,9	ml/min	>90
<i>Die Berechnung der GFR erfolgt seit 25.11.15 auf der Grundlage der nach IFCC-Standardisierung gemessenen Cystatin-C-Konzentration.</i>			
Harnstoff	54	mg/dl	15 - 39
Cystatin C	2,42	mg/l	0,62 - 1,20

Treatment Outcome

The treatment resulted in improved kidney function via lowering creatinine levels by 15%.

Testing complete blood count (CBC)

The complete blood count (CBC) is a measure to assess red blood cells, white blood cells and platelets in the blood. It is used to evaluate overall health and detect a wide range of disorders (National Cancer Institute, 2018).

The red blood cells (RBC) contains erythrocytes, which in turn contains haemoglobin. It is the haemoglobin within the RBC that carries oxygen to tissues within the body (University of Rochester Medical Center, 2019).

The normal healthy reference range for erythrocytes is between 3.9- 5.2/pl.
The normal healthy reference range for haemoglobin is between 12.3-15.3 g/dl.

Before treatment - August 2017

Before treatment, Jackie's erythrocyte level was at 2.56/pl. This was 34.3% less than the minimum healthy reference value, indicating a low number of RBC. Her haemoglobin level was at 7.9g/dl. This was 36% less than the minimum healthy reference value, suggesting a diminished ability for oxygen delivery to cells.

Test	Result	Unit	Reference Range / Result
Erythrozyten	2,56	/pl	3,9 - 5,2
Hämoglobin	7,9	g/dl	12,3 - 15,3
HBE (MCH)	30,9	pg	27 - 33,5
MCV	97	fl	80 - 98

After treatment - October 2017

After treatment, Jackie's erythrocyte level increased by 52.7% to 3.91/pl, back into the healthy reference range. Her haemoglobin level showed an increase of 48%, reaching 11.7 g/dl and showing a huge improvement in the blood's ability to deliver oxygen to the body's cells.

Test	Result	Unit	Reference Range / Result
Erythrozyten	3,91	/pl	3,9 - 5,2
Hämoglobin	11,7	g/dl	12,3 - 15,3
HBE (MCH)	29,9	pg	27 - 33,5
MCV	93	fl	80 - 98

Treatment Outcome

Following treatment, the blood's ability to deliver oxygen to the cell has greatly improved.

Testing haematocrit and mean corpuscular haemoglobin concentration (MCHC)

Haematocrit is the ratio of RBC volume to total blood volume (Billett, 1990). The normal range of haematocrit is between 35.5–45%.

Mean corpuscular haemoglobin concentration (MCHC) refers to the average haemoglobin content in the red blood cells (RBC). Haemoglobin is the protein molecule that allows the red blood cells to carry oxygen to the tissues within the body. The normal range for MCHC is between 33–36 g/dl.

Before treatment - August 2017

Before treatment, Jackie's haematocrit was at 24.7%, which is 10.8% less than the minimum healthy reference value. This indicates that she has a low ratio of RBC volume to total blood volume.

Jackie's MCHC is at 32 g/dl, which is 1g/dl less than the minimum healthy reference value, suggesting she has a low concentration of haemoglobin in RBC and that her ability to carrying oxygen to tissues can be improved.

Jackie has both a low concentration of RBC, as well as a low MCHC, which altogether means that she has a decreased ability to deliver oxygen to her cells.

Test	Result	Unit	Reference Range / Result
HBE (MCH)	30,9	pg	27 - 33,5
MCV	97	fl	80 - 98
Hämatoknt	24,7	%	35,5 - 45
MCHC	32,0	g/dl	33 - 36

After treatment - October 2017

After treatment, Jackie's haematocrit improved by 35.2% and her MCHC by 1%. This showed signs of improved oxygen delivery.

Test	Result	Unit	Reference Range / Result
HBE (MCH)	29,9	pg	27 - 33,5
MCV	93	fl	80 - 98
Hämatoknt	36,2	%	35,5 - 45
MCHC	32,3	g/dl	33 - 36

Treatment Outcome

Overall, the red blood cell (RBC) count showed signs of improvement.

Treatment

Jackie's treatment entailed the following:

- MHG proprietary parenteral blend with three key ingredients.
- IV infusions of seven natural Ingredients.

Health Outcome Summary

As a result of MHG treatments, Jackie noticed the following improvements:

- Improved kidney impairment by lowering her creatinine level by 15%.
- Increased erythrocytes by 52.7%.
- Increasing haemoglobin number by 48%.
- Improved ratio of RBC volume to total volume of blood by 35.2%.
- Improve haemoglobin concentration in RBC by 1%.

Overall, the blood count showed improvement, especially in erythrocyte and haematocrit, which are back to normal range. This has resulted in improved oxygen delivery to tissues, benefiting her swollen legs and lymph congestion.

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Cancer Clinical Case Study 5

Leukaemia

Cancer Clinical Case Study 5

Leukaemia

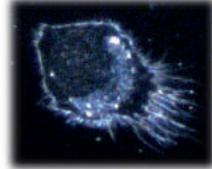
Patient Background

In May 2017, Roger, a 53-year-old male, presented to MHG.

Three years previously, Roger had suffered an infection with a fever and severe throat pain. After examination by way of a normal routine body checkup, it was discovered that he had a conspicuous white blood cell count. After further investigation, Roger was diagnosed with hairy cell leukaemia (HCL), which is a rare and slow-growing blood cancer. It occurs when there is a heavy infiltration in bone marrow, the spleen and liver by leukemic cells (Vazzana et al., 2004; Swerdlow, 2008).

Under the microscope, it showed that Roger had developed hairy cell leukaemia and almost no platelets were observed at the darkfield.

The proliferation of these abnormal leukemic cells reduces the generation of healthy white blood cells, red blood cell and platelets.



Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests and continued to administer treatments. The treatment protocol that Roger undertook was designed to improve his white blood cell count and reduce the severity of the HCL. His treatment consisted of:

- Six types of supplements.
- One type of anti-viral drug.
- Prescribed ketogenic diet.

The results of the diagnostic tests and treatments in the following pages.

Blood Test and Treatment

Testing for B-cells

B-cells are an important component of the adaptive immune system. They produce and secrete millions of different antibody molecules. Each of these antibodies recognise a foreign antigen (Ollila & Vihinen, 2005).

High expression of CD19+ and CD20+ is associated with hairy cell leukaemia (Ginaldi et al., 1998; Troussard & Cornet, 2017).

Roger's B-cell clonal expansions of CD19+ and CD20+ are 99%. This is extremely high. The 1% granulopoese co-expression of CD14+ indicates that Roger is low in granulocytes, which is a type of white blood cell. There is high B-cell co-expression and low granulocytes co-expression.

The result is that Roger has a weakened innate immune system.

Test	Result	Reference Range
B-Zellen	CD19+	22 % der Ly
	CD19+ und kappa+	19 % der B-Z.
	CD19+ und lambda+	72 % der B-Z.
	CD19+ und CD5(+)	29 % der B-Z.
	CD19+ und CD10+	59 % der B-Z.
	CD19+ und CD20+	99 % der B-Z.
Nk-Zellen	CD19+, CD25, CD103+	37 % der B-Z.
	CD3-, CD16+, CD56+	8 % der Ly
Granulopoese / Monopoese	CD13+	41 % der Zellen
	CD14+	1 % der Zellen
Erythropoese	CD71+	3 % der Zellen
	Glycophorin A	4 % der Zellen

Testing for thrombocytes

Thrombocytes help to form blood clots to slow or stop bleeding and facilitate wound healing (National Cancer Institute, 2018).

The normal range of thrombocytes is between: 140-400 TSND/ μ l.

Before treatment - June 2017

Before treatment, Roger's thrombocytes levels are very low, below the minimum value of the healthy reference range, at 76 TSND/ μ l.

Test	Result	Unit	Reference Range / Result
Hämatokrit	45,8	%	35,9 - 50,5
RDW (Ery)	15,7	%	11 - 16
Thrombozyten	76	TSND/μl	140 - 400
Leukozyten	2,2	/nl	4 - 10
MPV	11,1	n	7,8 - 11,5

During treatment - August 2017

After two months of treatment, the number of thrombocytes increased by 17% to 89 TSND/ μ l. Still very low, but treatment was working.

Test	Result	Unit	Reference Range / Result
MCHC	34,7	g/dl	33 - 36
RDW (Ery)	15,4	%	11 - 16
Thrombozyten	89	TSND/μl	140 - 400
Leukozyten	2,7	/nl	4 - 10
MPV	10,9	n	7,8 - 11,5

After treatment - October 2017

Roger stopped taking treatment and as he reduced the medication and supplement intake, his number of thrombocytes dropped back to roughly the same as initial measurement.

Test	Result	Unit	Reference Range / Result
MCHC	34,7	g/dl	33 - 36
RDW (Ery)	14,8	%	11 - 16
Thrombozyten	72	TSND/μl	140 - 400
Leukozyten	2,3	/nl	4 - 10
MPV	12,3	n	7,8 - 11,5

Treatment Outcome

While on the treatment, Roger's thrombocytes increased by 17%.

Testing Vitamin D and selenium

Low levels of vitamin D and selenium are associated with increased risk of cancer.

The normal healthy reference range for vitamin D is 30-80ng/ml.
The normal healthy reference range for selenium is 121- 168µg/l.

Lab test results

Roger's vitamin D level is less than half of the average at 19.2ng/ml, while his selenium level is 88.6µg/l, 26% lower than the minimum acceptable for a healthy range.

OSTEOPOROSE			
Test	Result	Unit	Reference Range / Result
Vitamin D (25-OH)	19,2	ng/ml	30 - 80 

VITALSTOFFE			
Test	Result	Unit	Reference Range / Result
Selen (VB)	88,6	ug/l	121 - 168 
ug Zink (VB)	683	ug/dl	400 - 750 
Coenzym Q10	947	ug/l	750 - 1200 

Therapeutischer anzustrebender Bereich: > 1500 mg/L

Epstein-Barr Virus

Epstein-Barr Virus (EBV) was found to be the first virus that causes cancer in human. It is associated with a wide range of human cancers from epithelial cells, lymphocytes and mesenchymal cells (Thompson & Kurzrock, 2004; Ko, 2015).

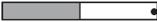
Before treatment - June 2017

Before treatment, the concentration of Epstein-Barr virus was found to be very high in Roger's saliva at 1,060,000 Kop/ml. This was 353 times more than the considered maximum for normal healthy people. This type of virus encourages tumour development.

Erreger DNA/RNA			
Test	Result	Unit	Reference Range / Result
EBV DNA (PCR: Speichel)	1060000	Kop/ml	< 3000 

February 2018 - Treatment Interrupted

Roger stopped taking his medication and supplements, effectively interrupting his treatment. As a result, his EBV concentration skyrocketed to 7,960,000 Kop/ml.

Erreger DNA/RNA			
Test	Result	Unit	Reference Range / Result
EBV DNA (PCR: Speichel)	7960000 500(19.10.17)	Kop/ml	< 3000 

During Treatment - March 2018

Roger was given strict advice by Dr Wessolly, which he followed, and his EBV reduced by 802.4 times from 7,960,000 to 9,920 Kop/ml within a month. This is a huge decrease but is still considered too high.

Erreger DNA/RNA			
Test	Result	Unit	Reference Range / Result
EBV DNA (PCR: Speichel)	9920 7960000(02.02.18)	Kop/ml	< 3000 

After treatment - May 2018

After another few months of following the treatment plan, Roger's EBV concentration has reduced to 382 Kop/ml, which is within the normal healthy range. Compared to the EBV concentration before treatment, it has reduced 2774.9 times.

Erreger DNA/RNA			
Test	Result	Unit	Reference Range / Result
EBV DNA (PCR: Speichel)	382 9920(12.03.18)	Kop/ml	< 3000 

Treatment Outcome

Lowered Epstein-Barr virus (EBV) by 2774.9 times within a year.

Treatment

Although interrupted at one point, Roger's treatment entailed the following:

- Six types of supplements.
- One type of anti-viral drug.
- Prescribed ketogenic diet.

Health Outcome Summary

As a result of the MHG treatments, Roger's health parameters improved. He noticed the following:

- Increased number of thrombocytes by 17%.
- Reduced Epstein-Barr Virus by 2774.9 times within a year.
- Improved white blood cell profile by increasing the number of thrombocytes.
- Reduced severity of hairy cell leukemia.

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Case Study Glossary

EPSTEIN-BARR VIRUS (EBV):

It was found to be the first virus that causes cancer in humans. It is associated with a wide range of human cancers from epithelial cells, lymphocytes and mesenchymal cells (Thompson & Kurzrock, 2004; Ko, 2015).

B-CELLS

They are an important component of adaptive immunity by producing and secreting millions of different antibody molecules. Each of these antibodies recognise a foreign antigen (Ollila & Vihinen, 2005).

NATURAL KILLER (NK) CELLS

They are effector lymphocytes of the innate immune system that control a number of tumour types and microbial infections by limiting their spread and subsequent tissue damage (Vivier et al, 2008; Wu & Lanier, 2003).

TKTL1

It is a marker for anaerobic glucose metabolism, which is concomitant with invasive growth/metastasis, and resistant to radical and apoptosis inducing therapies (Coy, 2017; Grimm et al, 2013).

T-CELL COUNT

It is a blood test that measures the number of T-cells and other associated immune cells in the body. T-cells are a type of white blood cell that respond to viral infections and boost immune function. Low T-cell count usually indicates there is a problem with the body's immune system or lymph nodes (Martel, 2018). It is also found that cancer patients with low immune cells, such as T-cells, are associated with decreased overall survival (Madu et al, 2013).

Clinical Case Study

Dengue Fever

Clinical Case Study

Dengue Fever

Dengue virus (DENV) is what causes dengue fever. It is a mosquito-borne infection, meaning it is spread via the bite of infected mosquitos. There are four serotypes of dengue fever (DENV1, DENV2, DENV3, DENV4). It is a virus of the flaviviridae family. The virus causes a mild flu-like illness, or a more 'severe dengue' that can be fatal.

Dengue fever exists in 100 countries spanning Africa, the Americas, the Eastern Mediterranean, South-East Asia, and the Western Pacific. There is an estimated annual global infection rate of over 400 million each year.

Currently, there is no standard protocol in treating the disease (World Health Organisation 2020).

The general symptoms that categorise dengue fever are high fever (~40 degree C), swollen glands, rash, flu-like symptoms (severe headache, pain behind the eyes, muscle and joint pains, nausea and vomiting).

Secondary infection by other serotypes of dengue may result in the following:

- Severe bleeding
- Organ impairment
- Plasma leakage
- Repaired breathing
- Severe abdominal pain
- Persistent vomiting
- Fatigue

Patient Background

Tom was first infected with dengue in 1991 in Thailand, at the age of 34. This was broadly undiagnosed at the time with Tom having a high fever for a few days.

The second time he was infected was when he was 62, in December 2019 in Myanmar. This time his symptoms were high fever (two days - 19 and 20 December), dehydration, extremely weak and fatigued, no appetite, severe back pain, and insomnia. At the time of these symptoms a few days later, Tom was in Paris and called upon conventional medical treatment.

PARIS: 20 DECEMBER 2019

On 20 December 2019, the first doctor called suspected a bacterial infection causing the febrile illness. The doctor prescribed strong antibiotics, aspirin and paracetamol ('French Tylenol').

On 21 December 2019, a second doctor was called as Tom's symptoms were getting worse. The doctor confirmed the diagnosis and medication given by the first doctor.

CONVENTIONAL TREATMENT IN PARIS

The outcome of the conventional treatment in Paris was:

- The condition of dengue fever was exacerbated.
- Reduction of client's blood platelet count.
- White blood cell count dropped.

Following a further deterioration in Tom's condition on 22 December 2019, Tom contacted MHG. Our doctors advised to cease all medication immediately and attend an MHG clinic as soon as possible. Tom departed France and arrived at MHG in Bangkok in the morning of 24 December to commence immediate treatment.

Diagnostic Testing, Treatment and Outcome

Following arrival at MHG in Bangkok, Tom underwent a series of blood tests so the MHG doctors could determine what was causing his symptoms before administering treatment.

Diagnosed with Dengue Fever

To determine the cause of Tom's symptoms, Tom was tested for both Influenza A and B, with both returning a negative result.

Test	Method	Result	Unit	Reference
Influenza A/B screening	ICT	Negative		Negative
Influenza Type A (Screening test)	ICT	Negative		Negative

At the same time, Tom was also tested for dengue fever. This returned a positive result.

Test	Method	Result	Unit	Reference
DENGUE DUO				
Dengue IgG screening	EIA	Positive		Negative
Dengue IgM screening	EIA	Positive		Negative
Dengue NSI Ag	EIA	Positive		Negative

Treatment

After the diagnosis for dengue fever was confirmed, the MHG doctors replaced the antibiotics, aspirin and paracetamol that Tom was taking in Paris with MHG's proprietary infusions and supplements. The table below shows how Tom's high fever is eliminated, and his blood pressure is stabilised.

	24 Dec	25 Dec	26 Dec	27 Dec	02 Jan
 Body Temp. (normal: ~37 °C) <i>NHS, 2017</i>	37.9 °C	36.2 °C	37.2 °C	-	-
 Blood Pressure (120-129/80-84 mmHg) <i>Adventist Health, 2001</i>	109/72 mmHg	139/89 mmHg	131/85 mmHg	152/92 mmHg	-
 Supplements	4 types	4 types	4 types	4 types	2 types
 Infusions	13	14	16	10	11
 Injection	0	2	0	0	2

Blood Test and Treatment

Testing white blood cells

White blood cells (WBC) are part of the immune system and help the body fight against infection by ingesting foreign materials and producing antibodies (Encyclopedia Britannica, 2020).

The normal range of WBC is between 4.5 - 10.0 x 10³/uL.

Before treatment - 24 December 2019

Before treatment, Tom's WBC level was at 2.46 x10³/ul, which is 45% less than the minimum reference value and is very low.

Test	Method	Result	Unit	Reference
Complete Blood Count(CBC)				
Total WBC	L	2.46	10 ³ /uL	4.5-10.0

Second day of treatment - 25 December 2019

As treatment was underway, Tom's WBC was tested each day. On the second day of treatment, Tom's WBC level is at 4.01 x 10³/ul and has improved, though still low. This value was only 10.8% less than the minimum healthy reference value.

Test	Method	Result	Unit	Reference
Complete Blood Count(CBC)				
Total WBC	L	4.01	10 ³ /uL	4.5-10.0

Third day of treatment - 26 December 2019

By the third day of treatment, Tom's WBC level has increased to 5.81 x 10³/ul and has returned into the normal reference range for healthy people.

Test	Method	Result	Unit	Reference
Complete Blood Count(CBC)				
Total WBC		5.81	10 ³ /uL	4.5-10.0

Fourth day of treatment - 27 December 2019

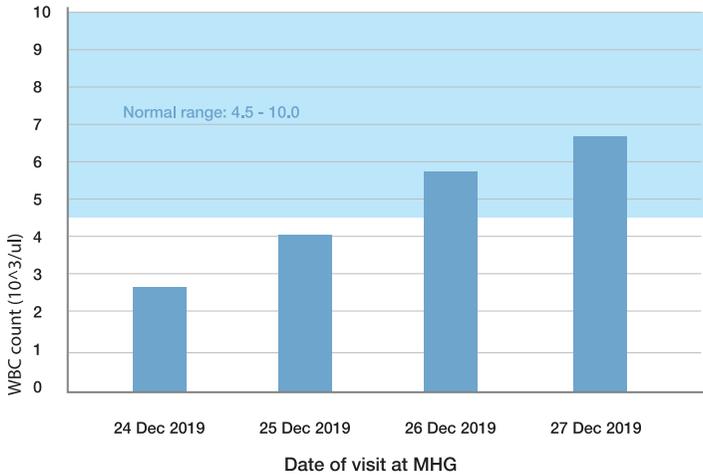
By the fourth day of treatment, Tom's WBC level has increased 2.55 times the initial reading to 6.27 x 10³/ul and is being maintained within the normal healthy range.

Test	Method	Result	Unit	Reference
Complete Blood Count(CBC)				
Total WBC		6.27	10 ³ /uL	4.5-10.0

Treatment Outcome

Following four days of treatment and testing, the WBC count improved by 2.55 times the initial reading of 2.46 x10³/ul, which is very low, up to 6.27 x 10³/ul which is considered healthy.

Client’s White Blood Cell (WBC) Progress



Testing platelet count

Platelet count is the average number of platelets in the blood. It helps the body to heal wounds and prevent excessive bleeding through clotting (Medical News Today, 2019).

The reference range for healthy platelet count is 150 – 450 x 10³.

Before treatment - 24 December 2019

Before treatment, Tom’s platelet count was at 49 x 10³/ul, which is 67% less than the minimum reference value for healthy people.

DURING TREATMENT – 24 DEC 2019

Test	Method	Result	Unit	Reference
Platelet Count		L 49	10 ³ /UL	150-450
Platelet Comment		Decrease		

During treatment - 27 December 2019

DURING TREATMENT – 27 DEC 2019

Test	Method	Result	Unit	Reference
Platelet Count		L 62	10 ³ /uL	150-450
Platelet Comment		Decrease		

During treatment, Tom’s platelet count had a further drop to 26 x 10³/ul on 25 December, and 23 x 10³/ul on 26 December, respectively. By 27 December, after a couple of treatments, his platelet count has raised back to 62 x 10³/ul.

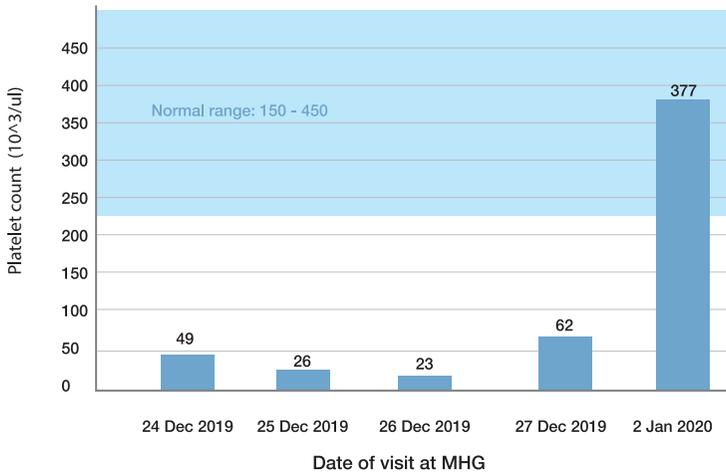
After treatment - 2 Jan 2020

AFTER TREATMENT – 2 JAN 2020

Test	Method	Result	Unit	Reference
Platelet Count		377	10 ³ /uL	150-450
Platelet Comment		Adequate		

After treatment, Tom’s platelet count has increased 7.69 times to 377 x 10³/ul and returned into the normal healthy reference range

Client’s Platelet Count Progress



Treatment Outcome

Following treatment, Tom’s platelet count improved by 7.69 times the initial reading of 49 x 10³/ul to 377 x 10³/ul, which is considered healthy.

Health Outcome Summary

Treatment began in Paris under conventional medical care. When Tom's condition deteriorated despite this medical care, the MHG doctors intervened and prescribed the following treatment protocol over five days.

Eleven to sixteen different MHG proprietary infusions each day.

- Two to four supplements each day.
- Two series of two injections over two days.

Tom experienced a rapid recovery after the four-day treatment:

- His total WBC (white blood cell) count improved by 2.55 times and returned to the healthy range.
- His platelet count increased by 7.69-times and returned to the normal healthy range.
- Tom's appetite was back on 25 December.
- He was able to attend business meetings and dinners on 27 December.
- The treatment had eliminated his back pain and insomnia.

After the treatment:

- By 4 January, Tom was able to resume international travel and normal working hours.
- By 6 January, Tom returned to his regular gym regime.

It is worth noting that Tom required no hospitalisation during the dengue fever treatment and recovered with MHG treatment protocols. Also, according to studies, treating dengue with conventional methods, the recovery period of second infection of dengue fever can take up to six months (Gonzlez et al, 2005) and some have shown alterations in immunological parameters in the following two years (Garcia et al, 2011; Bandara et al, 2019).

	MHG	Conventional
 Diagnosis	Dengue Fever identified	Bacterial Infection
 Treatment	Natural Proprietary Infusions, Injections & Supplements	Chemical Drugs (Antibiotics, Aspirin, Paracetamol)
 Recovery Duration	Approx. 2 weeks	Approx. 6-12 weeks

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Clinical Case Study

Menopause

Clinical Case Study

Menopause

Menopause is a normal, natural event defined as the final menstrual period in a woman's life. It represents the permanent cessation of menses, resulting from loss of ovarian follicular function due to ageing (NAMS, 2010). In Asia, menopause usually occurs in women between the age of 45-55 (Bin, 2016).

Menopause usually results in some or all of the following symptoms:

- **General symptoms:** increased body fat, hot flushes and loss of energy.
- **Psychological symptoms:** mood swings, depression, anxiety, lack of vitality, sleep problems, forgetfulness, and having trouble focusing.
- **Sexual and urinary symptoms:** Low sex drive, vaginal dryness, irregular periods, and urinary problems.

Patient Background

Our patient, Jane, visited MHG in March of 2018. Jane is a 61-year-old female suffering from the following symptoms:

- Joint pain
- Hair loss
- Loss of libido
- Hot flushes
- Dry skin
- Osteoporosis
- Chronic fatigue
- Homocysteine intolerance
- Sleep disturbance
- Mood swings
- Problems with cognition

Diagnostic Testing, Treatment and Outcome

After coming to see us at MHG, our doctors conducted some blood tests to gather information and design a treatment plan, and then continued to administer treatments. The treatment protocol that Jane undertook involved:

- Twelve types of MHG supplements

The results of the diagnostic tests are in the following pages.

Blood Test and Treatment

Testing homocysteine and diamine oxidase levels

Studies have shown that high homocysteine is a risk factor of heart disease (Ganguly, 2015; Wierzbicki, 2007).

A normal homocysteine level for healthy people is $<8\mu\text{mol/l}$.

Jane's homocysteine level was at $12.4\mu\text{mol/l}$, which was considered excessive by almost 55%. This suggests a high deficiency in Vitamin B, particularly Vitamin B12 and folic acid.

STOFFWECHSEL/KHK

Test	Result	Unit	Reference Range / Result
Homocystein (SR)	12.4	umol/l	<8 

OXIDATIVER STRESS

Test	Result	Unit	Reference Range / Result
Mitofunktion/Ox-Nitrostress Nitrotyrosin im Plasma	356	nmol/l	<533 

Aufgrund Umstellung der Kitcharge ist ab 14.02.2017 ein neuer Normbereich gultig.

Jane's diamine oxidase (DAO) is very low at 7.9U/ml, below the minimum healthy level of 10 U/ml. It is 21% lower than the minimum value of the standard for a healthy person. This explains why she has histamine intolerance, as DAO is the main enzyme for the metabolism of ingested histamine (Maintz & Novak, 2007).

Erreger DNA/RNA

Test	Result	Reference
Profil Herpesvirus		
HSV1-DNA (SP)	negativ	negativ
HSV 2-DNA (SP)	negativ	negativ
HHV6-DNA (SP)	negativ	negativ
CMV-ONA (SP)	negativ	negativ
VZV-DNA (SP)	negativ	negativ
EBV-DNA (SP)	negativ	negativ

ALLERGIE

Test	Result	Unit	Reference Range / Result
Diaminoxidase	7,9	U/ml	10 - 50 

Histamine intolerance

Histamine intolerance is not a sensitivity to histamine but an indication of excessive histamine within the body.

Functions of histamine:

- It facilitates communication to the brain.
- It stimulates the release of stomach acid to help digestion.
- It releases after injury or allergic reaction as part of the immune response.

Causes of high histamine levels:

- DAO deficiency – as DAO is responsible to breakdown histamine coming from food.
- Bacterial overgrowth.

Symptoms of histamine intolerance:

- Headaches or migraines
- Nasal congestion or sinus issues
- Fatigue
- Hives
- Digestive issues
- Irregular menstruation

In severe cases:

- Abdominal cramping
- Tissue swelling
- High blood pressure
- Irregular heart rate
- Anxiety
- Difficulty regulating body temperature
- Dizziness

Testing for mean corpuscular haemoglobin concentration (MCHC)

Mean corpuscular haemoglobin concentration (MCHC) refers to the average haemoglobin content in the red blood cells (RBC). Haemoglobin is the protein molecule that allows the red blood cells to carry oxygen to the tissues within the body.

The normal range for MCHC is between 33-36 g/dl.

Before treatment - March 2018

Before treatment, Jane's MCHC is just under the standard for a healthy patient at 32.1 g/dl, suggesting that she has signs of deficiency in Vitamin B12.

Test	Result	Unit	Reference Range / Result
Hämoglobin	13,1	g/dl	12,3 - 15,3
HBE (MCH)	28,9	pg	27 - 33,5
MCV	90	fl	80 - 98
Hämatokrit	40,8	%	35,5 - 45,5
MCHC	32,1	g/dl	33 - 36
RDW (Ery)	13,6	%	11 - 16
Thrombozyten	253	TSND/µl	130 - 450
Leukozyten	7,5	/nl	4 - 10

After treatment - October 2018

After treatment, Jane's MCHC has improved by increasing 0.8 g/dl within three months, edging closer into the healthy range.

Test	Result	Unit	Reference Range / Result
Hämoglobin	13,5	g/dl	12,3 - 15,3
HBE (MCH)	29,6	pg	27 - 33,5
MCV	90	fl	80 - 98
Hämatokrit	41,0	%	35,5 - 45,5
MCHC	32,9	g/dl	33 - 36
RDW (Ery)	13,9	%	11 - 16
Thrombozyten	269	TSND/µl	130 - 450
Leukozyten	7,0	/nl	4 - 10

Treatment Outcome

The elevated MCHC value by 0.8g/dl allows for more efficient oxygen delivery to tissues and subsequently reduces the patient's fatigue.

Testing for Oestradiol levels

Oestradiol is a sex hormone that maintains the female reproductive system, promotes breast tissue development and increases the density of bone and cartilage (Society for Endocrinology, 2018). Research also shows that low oestradiol encourages cholesterol build up on artery walls that can lead to increased risk of heart disease (The Office of Women’s Health, 2017).

The normal range of oestradiol is between 20-60pg/ml.

Before treatment - March 2018

Before treatment, Jane’s oestradiol result was very low at <5.0 pg/ml, which indicates menopause.

Test	Result	Unit	Reference Range / Result
Progesteron (S)	<0,20	ng/ml	<1,0
<i>Progesteron-Normbereiche (ng / ml):</i>			
<i>bis 25.02.2016 nach 25.02.2016</i>			
<i>Follikelphase:</i>	<i>bis 1,1</i>	<i>0,33 - 1,2</i>	
<i>Zyklusmitte:</i>	<i>0,8 - 3,0</i>	<i>0,8 - 3,0</i>	
<i>Lutealphase:</i>	<i>1,8 - 21</i>	<i>0,72 - 17,8</i>	
<i>Postmenopause:</i>	<i>bis 1,0</i>	<i>< 1,0</i>	
<i>Gravidität</i>	<i>1. Trimester</i>	<i>9,3 - 33,2</i>	
	<i>2. Trimester</i>	<i>29,5 - 50,0</i>	
	<i>3. Ta. tester</i>	<i>83,1 - 160</i>	
Östradiol (E2)	<5,0	pg/ml	20 - 60
<i>Östradiol - Normbereiche Serum (Pg/ml)</i>			
<i>Follikelphase (1. - 4. Tag): 30 -120</i>			

After treatment - October 2018

After treatment, seven months later, Jane’s oestradiol levels had increased by 84 times, from <5.0 pg/ml to 47.2. pg/ml.

Test	Result	Unit	Reference Range / Result
Progesteron (S)	0,47 <0.20(21.03.18)	ng/ml	<1,0
<i>Progesteron-Normbereiche (ng / ml):</i>			
<i>bis 25.02.2016 nach 25.02.2016</i>			
<i>Follikelphase:</i>	<i>bis 1,1</i>	<i>0,33 - 1,2</i>	
<i>Zyklusmitte:</i>	<i>0,8 - 3,0</i>	<i>0,8 - 3,0</i>	
<i>Lutealphase</i>	<i>1,8 - 21</i>	<i>0,72 - 17,8</i>	
<i>Postmenopause:</i>	<i>bis 1,0</i>	<i><1,0</i>	
<i>Gravidität</i>	<i>1. Trimester</i>	<i>9,3 - 33,2</i>	
	<i>2. Trimester</i>	<i>29,5 - 50,0</i>	
	<i>3. Trimester</i>	<i>83,1 - 160</i>	
Östradiol (E2)	47,2 <5,0(21.03.18)	pg/ml	20 - 60

Treatment Outcome

The MHG supplements reduced associated risks of low oestradiol levels by elevating it by 84 times its initial measured level and well into the healthy range.

Pregnenolone levels

Pregnenolone is the precursors of steroid hormones that affect nerve cell growth and modulate moods (Goepf, 2007).

The normal range for pregnenolone is between 24-50 µg/dl.

Before treatment - March 2018

Before treatment, Jane's pregnenolone level was very low at 14.9 µg/dl, which is about 38% lower than the minimum value set for the healthy reference range.

Test	Result	Unit	Reference Range / Result
Testosteron	0,03	ng/ml	0,03 - 0,41 
Dihydrotestosteron	141	ng/l	10 - 181 
<i>Frauen</i>			
<i>prämenopausal: 24 - 368 pg/ml</i>			
<i>postmenopausal: 10 - 181 pg/ml</i>			
Freier Androgen-Index (FAI)	n.b.	%	0,4 - 8,4 
Pregnenolonsulfat (S)	14,9	µg/l	24 - 50 
<i>Unter Substitution: erfolgt die Blutabnahme 3-5 Stunden nach der Einnahme, liegt der Zielbereich zwischen 150-300 ug/l.</i>			
DHEAS	73	µg/dl	20 - 190 

After treatment - October 2018

After treatment, Jane's pregnenolone level increased 15 times from 14.9 µg/dl to 223 µg/dl.

Test	Result	Unit	Reference Range / Result
Testosteron	<0,03 0,03(21.03.18)	ng/ml	0,03 - 0,41 
Dihydrotestosteron	132 141(21.03.18)	ng/l	10 - 181 
<i>Frauen</i>			
<i>prämenopausal: 24 - 368 pg/ml</i>			
<i>postmenopausal: 10 - 181 pg/ml</i>			
Freier Androgen-Index (FAI)	n.b. n.b.(21.03.18)	%	0,4 - 8,4 
Pregnenolonsulfat (S)	223,0 14,9(21.03.18)	µg/l	24 - 50 
<i>Unter Substitution: erfolgt die Blutabnahme 3-5 Stunden nach der Einnahme, liegt der Zielbereich zwischen 150-300 ug/l.</i>			
DHEAS	71 73(21.03.18)	µg/dl	20 - 190 

Treatment Outcome

After Jane's treatment, her pregnenolone levels increased by 15 times. This stabilised her mood swings, improved her cognition problems and facilitated steroid hormone generation, such as oestradiol.

Health Outcome Summary

Treatment was by way of twelve different types of supplements, which began in March 2018. As a result of the MHG treatments, Jane regained her strength and suffered less fatigue. This was from improved efficiency in oxygen delivery to tissue by the increased MCHC levels (MCHC increased by 0.8g/dl). The treatments also helped:

- Reduce associated risks of low oestradiol levels, such as heart disease (oestradiol level increased by 84 times);
- Stabilise her mood swings;
- Alleviate her cognition problems; and
- Improve the production of steroid hormones by elevating her pregnenolone levels (by 15x).

References: Menopause Case Study

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LINKS

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