TREATING HEPATITIS C WITH BIOMAGNETISM

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Resumen
El VHC es un virus de transmisión sanguínea que estaba previamente referido como no-A hepatitis / no-B. El VHC tiene siete genotipos, numerados 1-7. El genotipo 1 es el más común en los EE.UU. El VHC entra al cuerpo a través de la sangre directa la exposición. Ataca a las células en el hígado, donde se multiplica (replica). Las causas del virus de la hepatitis C (VHC) es la inflamación del hígado y mata a las células del hígado. Hasta 75% de las personas inicialmente infectadas con el VHC puede llegar a desarrollar una infección crónica, y dentro de los primeros seis meses puede no ser detectado. La mayoría de las personas con infección crónica por VHC no presentan síntomas y pueden llevar una vida normal. Sin embargo, en el 10-25% de las personas con enfermedades crónicas por VHC, progresan durante un período de 10 a 40 años, y puede conducir a graves daños del hígado, como cirrosis (cicatrización) y cáncer de hígado. Hoy en día, el VHC es el razón principal para trasplantes en los EE.UU. Actualmente no existe vacuna contra el VHC; Sin embargo, el tratamiento puede curar a la mayoría de la gente de VHC y hacer mas lenta la evolución de los daños.

Palabras Clave: Virus RNA, transmisión, diagnóstico, Prevención.

Abstract
HCV is a blood-borne virus that was previously referred to as non-A/non-B hepatitis. HCV has seven genotypes, numbered 1–7. Genotype 1 is the most common in the U.S. HCV enters the body through direct blood exposure. The virus attacks cells in the liver, where it multiplies (replicates). HCV causes liver inflammation and kills liver cells. Up to 75% of people initially infected with HCV may become chronically infected; that is, the infection does not clear up within six months. Most people with chronic HCV do not experience symptoms and lead normal lives. However, in 10–25% of cases, the disease progresses over a period of 10–40 years in people with chronic HCV and may lead to serious liver damage, cirrhosis (scarring), and liver cancer. Today, HCV is the leading reason for liver transplants in the U.S. Currently there is no vaccine for HCV; however, treatment can cure most people with HCV and stop or slow down the progression of the disease.

Keywords: virus RNA, transmission, diagnosis, prevention.

Introduction:
Hepatitis C is a viral infection of the liver caused by a RNA virus, a member of the Flaviviridae family and replicates itself in the liver.

Is spreads from one person to another through blood, after a syringe puncture or injury from a sharp object. Or if blood from a hepatitis C carrier comes into contact with a skin cut, as well as eye or mouth mucus.

Most people infected with hepatitis C do not experience any symptoms for many years. However, generally speaking Hepatitis C is a chronic disease, meaning that there is no cure.
Persons at risk of contracting hepatitis C include:
• Those who use syringes for illegal drugs or share needles with someone that has hepatitis C.
• Those who have been on kidney dialysis for a long time.
• Those who come into contact with blood frequently at work (for example, health workers).
• Those having unprotected intercourse with a person that has hepatitis C.
• Babies born to a mother infected with hepatitis C.
• Persons that have been tattooed or have undergone acupuncture with needles that were not properly disinfected prior to use after being used on another person (the risk level is very low when it is done by a licensed person performing the tattooing or acupuncture).
• Organ transplant recipients who received an organ from a donor with hepatitis C.
• Those who share personal hygiene products such as razor blades, shaving razors or toothbrushes with someone that has hepatitis C (less common cause).
• Those who receive a blood transfusion.

Statistics

Hepatitis C is considered a major public health problem that requires national and international attention. The chronic disease caused by HCV in most cases runs its course undetected, without symptoms, which is why it’s so important in terms of epidemiology. According to estimates, there are close to 170 million infected persons in the world. Global prevalence of HCV infection is estimated to be 2.2% globally. In Mexico it is reported that prevalence is 1% to 1.9%, similar to that reported in the U.S. Based on a conservative model, it could be said that 1.2 million persons in Mexico are infected with HCV.

Symptoms

Persons recently infected with hepatitis C experience no symptoms. Some show signs of jaundice which eventually disappears. The chronic infection generally does not cause any symptoms but can cause fatigue, skin disorders and other problems.

There are several symptoms that might appear during the illness, which include pain in the upper right quadrant of the abdomen, abdominal swelling due to fluids (ascites), discolored or clay-colored feces, Choluria, fatigue, fever, itchiness, loss of appetite, nausea and vomiting.

Diagnosis

Blood tests are done to verify the presence of hepatitis C: Enzyme immune-analysis to detect hepatitis C fighting antibodies; RNA test for hepatitis C to measure the virus load levels.

Genetic tests are done to verify the genotype of the hepatitis C. There are 6 types of virus (genotypes 1 through 6) and more than 50 subtypes. The genotype 1b is the most common subtype in the world. The following tests are done to verify and monitor the liver damage caused by hepatitis C:
• Albumin level
• Liver function tests
• Prothrombin time
• Liver biopsy
Treatment

A combination of Peginterferon and Ribavirin are usually used. These medication’s objective is to help the body rid itself of the virus, as well as reduce the risk of liver cancer and cirrhosis, both of which can result after a prolonged HCV infection. Interferon suppresses the hematopoiesis and patients frequently exhibit cytopenia (a decrease in blood cells). Ribavirin can suppress erythropoiesis which can aggravate the level of anemia. So another medication is used, Erythropoietin, which helps stimulate erythrocyte production and reduce the need of a blood transfusion.

A good outcome to treatment comes about when the virus is no longer detected in the blood after treatment.

Prevention

The measures that can be adopted to avoid transmittal of hepatitis C from person to person include:

• Healthcare workers must take the necessary precautions when handling blood.
• People should not share needles with anyone else.
• People should avoid tattoos, body piercings and should not be treated with acupuncture by someone who is not a licensed practitioner.
• People shouldn’t share personal hygiene things such as shaving razors or toothbrushes with others.
• People should take the necessary precautions when having sexual intercourse.

Hepatitis C virus is not passed on through casual contact, such as shaking hands, kissing, coughing and sneezing, breastfeeding, sharing eating utensils or drinking cups.
58 year old female client born and residing in Mexico City who was diagnosed with hepatitis C, on October 2013, with a positive viral panel, genotype 1b. Client says she is undergoing treatment and taking 2 tablets of 200 mg Ribavirin every 8 hours, receiving vaccine type shots (not specified) with two doses. History and important information, underwent several surgical procedures including a C-section 33 years ago, hysterecomy and left oophorectomy 8 years ago due to uterine fibroids and polycystic ovary syndrome. Had Human papilloma virus without showing lesions 10 years ago. Underwent appendectomy 15 years ago. Blood transfusions during surgery. Donor was a bloodline relative that was unaware of having hepatitis C. Client does not know how many packs of red cells were used, but there was no adverse reaction to procedure. In addition, client says she has received acupuncture treatment for 7 years.

Biomagnetic Pair Scan

At the first Biomagnetism visit on January 21, 2014, the client is asymptomatic, conscious, alert, and stable in all three areas, does not exhibit characteristic facies, has an adequate hydrolytic and nutritional level, has good skin color and shows no impairment in gait. Included here are the viral load test and genotyping tests done on October 28, 2013 (Image 1) and complete blood count test done on January 2014 (Image 2). During the scan, the following pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 1 (Bioenergetics)**

<table>
<thead>
<tr>
<th>BP 1</th>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liver</td>
<td>Liver</td>
<td>Right Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2</td>
<td>Liver</td>
<td>Liver</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3</td>
<td>Inner ear</td>
<td>Inner ear</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 4</td>
<td>Supraspinatus</td>
<td>Supraspinatus</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 5</td>
<td>Post pineal</td>
<td>Bladder</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 6</td>
<td>Sigmoid</td>
<td>Rectum</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 7</td>
<td>Lesser Trochanter</td>
<td>Lesser Trochanter</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 8</td>
<td>Kidney</td>
<td>Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 9</td>
<td>Lumbar cyst</td>
<td></td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 1 Taken from office visit
David Goiz Martínez1*† and Mario Salinas Soto1,2

Image 1 Client's tests

Image 2 Client's tests
At the second scan done on February 1st, 2014, client reports not having a reaction after the first treatment and claims to be asymptomatic. At this treatment client confirms having taken first dose of interferon alpha-2A in weekly treatment. The following pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 2 (Bioenergetics)**

<table>
<thead>
<tr>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP 1 Liver</td>
<td>Right Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2 Liver</td>
<td>Liver</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3 Diaphragm</td>
<td>Diaphragm</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 4 Post pineal</td>
<td>Bladder</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 5 Occipital</td>
<td>Occipital</td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 2 Taken from office visit

Third scan is done on February 17th, 2014. Client exhibits asthenia and adynamia. The following biomagnetic pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 3 (Bioenergetics)**

<table>
<thead>
<tr>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP 1 Liver</td>
<td>Spleen</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2 Spleen</td>
<td>Spleen</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3 Kidney</td>
<td>Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 4 Right shoulder</td>
<td>Cardia</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 5 Pericardium</td>
<td>Pericardium</td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 3 Taken from office visit

Fourth scan is done on February 22, 2014. There was an improvement in symptoms. Client exhibits influenza illness, which is in its third day, and reports not taking medication to treat it. The following pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 4 (Bioenergetics)**

<table>
<thead>
<tr>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP 1 Pericardium</td>
<td>Pericardium</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2 Vagina</td>
<td>Vagina</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3 Mastoid</td>
<td>Mastoides</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 4 Supraspinatus</td>
<td>Supraspinatus</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 5 Bladder</td>
<td>Bladder</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 6 Kidney</td>
<td>Kidney</td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 4 Taken from office visit
Fifth scan is done on March 14th, 2014. Client reports improvement of symptoms and is asymptomatic at the time. Provides new test results dated February 25th (Image 3), doctor has suspended interferon. The following pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 5 (Bioenergetics)**

<table>
<thead>
<tr>
<th>BP</th>
<th>Negative (−)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Liver</td>
<td>Right Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>2</td>
<td>Liver</td>
<td>Left Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>3</td>
<td>Post pineal</td>
<td>Bladder</td>
<td>2cm</td>
</tr>
<tr>
<td>4</td>
<td>Pericardio</td>
<td>Pericardium</td>
<td>2cm</td>
</tr>
<tr>
<td>5</td>
<td>Cardias</td>
<td>Appendix</td>
<td>2cm</td>
</tr>
<tr>
<td>6</td>
<td>Kidney</td>
<td>Kidney</td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 5 Taken from office visit

Image 3 Client’s tests
Sixth scan is done on May 27, 2014. Client is asymptomatic and provides tests dated April 2014 (Image 4). The following pairs were found:

### Biomagnetic Pair Scanning Technique - Scan 6 (Bioenergetics)

<table>
<thead>
<tr>
<th></th>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP 1</td>
<td>Right Kidney</td>
<td>Left Parietal</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2</td>
<td>Stomach</td>
<td>Thymus</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3</td>
<td>Post pineal</td>
<td>Bladder</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 4</td>
<td>Mesenterio</td>
<td>Mesenterio</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 5</td>
<td>Scapula</td>
<td>Scapula</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 6</td>
<td>Kidney</td>
<td>Kidney</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 7</td>
<td>Quiste Mediastino</td>
<td></td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 6 Taken from office visit

Seventh scan is done on June 9th, 2014. Client is asymptomatic and the following pairs were found:

### Biomagnetic Pair Scanning Technique - Scan 7 (Bioenergetics)

<table>
<thead>
<tr>
<th></th>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP 1</td>
<td>Bladder</td>
<td>Bladder</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2</td>
<td>Left shoulder</td>
<td>Cardias</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3</td>
<td>Cardias</td>
<td>Appendix</td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 7 Taken from office visit

Image 4 Client's tests
Eighth scan is done on July 1st, 2014. Tests have been done and client resumes interferon alpha-2A intake. The following pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 8 (Bioenergetics)**

<table>
<thead>
<tr>
<th></th>
<th>Negative (-)</th>
<th>Positive (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP 1</td>
<td>Supraspinatus</td>
<td>Supraspinatus</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 2</td>
<td>Deltoid</td>
<td>Deltoid</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 3</td>
<td>Carina</td>
<td>Carina</td>
<td>2cm</td>
</tr>
<tr>
<td>BP 4</td>
<td>Thoracic cyst</td>
<td></td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 8 Taken from office visit

Ninth scan is done on July 14th, 2014. Client is experiencing dizziness and weakness once more upon resuming interferon. Reports the presence of pruritus on the left shoulder and provides the results of the tests mentioned at the previous session (Images 5 & 6). The following pairs were found:

**Biomagnetic Pair Scanning Technique - Scan 9 (Bioenergetics)**

<table>
<thead>
<tr>
<th></th>
<th>Negativo (-)</th>
<th>Positivo (+)</th>
<th>DMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB 1</td>
<td>Parietal</td>
<td>Parietal</td>
<td>2cm</td>
</tr>
<tr>
<td>PB 2</td>
<td>Oído</td>
<td>Oído</td>
<td>2cm</td>
</tr>
<tr>
<td>PB 3</td>
<td>Carina</td>
<td>Carina</td>
<td>2cm</td>
</tr>
<tr>
<td>PB 4</td>
<td>Colon descendente</td>
<td>Colon descendente</td>
<td>2cm</td>
</tr>
<tr>
<td>PB 5</td>
<td>Quiste lumbar</td>
<td></td>
<td>2cm</td>
</tr>
</tbody>
</table>

Table 9 Taken from office visit
Clinical diagnosis
1 Hepatitis C
2 Seasonal Influenza
3 Allergic reaction at test

Discussion of the clinical case
Patients with this diagnosis usually experience a moderate progression of the aforementioned symptoms. The base test on this case showed hepatitis C. Unfortunately in these cases, following treatment is difficult due to varying results which are an important factor to consider when gauging the value of Biomagnetism when treating this pathology.

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References:

David Goiz Martinez1*† and Mario Salinas Soto1,2