Tumor Regression and Improved Survival in a Case of

Cholangiocarcinoma

(Klatskin Tumor/Bile Duct Cancer)

Achieved by a Novel Nutritional Therapy

Peter Grandics¹ and Maria Figler²

¹A-D Research Foundation, Carlsbad, CA 92008 USA, ²University of Pecs Medical School, 1st Institute of Internal Medicine, Gastroenterology, Pecs, Hungary

e-mail: pgrandics@earthlink.net

Key words: Hilar cholangiocarcinoma, tumor regression, nutritional therapy, MSQ 15 dietary compositions, molasses
Abstract

Objectives: Cholangiocarcinoma is a rapidly lethal cancer of the biliary system. The aim of this study was to determine the possible clinical benefit of the molasses-based MSQ 15D, 15E, and 15F dietary compositions in a case of cholangiocarcinoma.

Design: Single case study.

Settings/Location: Home.

Interventions: The regime of dietary supplements was administered as follows: all MSQ compositions, 2tbsp TID.

Outcome measures: Clinical improvement and regression of the tumor.

Conclusions: Treatment with the MSQ 15 formulae resulted in tumor regression and clinical improvement. Therefore, this approach may provide a novel therapeutic modality for cholangiocarcinoma.

Introduction

Cholangiocarcinoma is a relatively rare but rapidly lethal cancer of the bile ducts. The etiology of the disease is unclear, but risk factors include inflammation of the bile ducts, parasitic infections, congenital liver abnormalities and exposure to mutagenic substances. The patients may present with abdominal pain, pruritus, abnormal liver function tests, jaundice, weight loss, and fever. Patients are frequently diagnosed at Stage III-IV, which is too late for tumor resection. Currently, the five-year survival rate for non-resectable disease is 0%, and less than 5% in general.

Treatment options for cholangiocarcinoma include surgery, radiation and various chemotherapy protocols. Total resection of the tumor is the only potential chance for a cure; however, this option is available only in cases of early-stage disease. Adjuvant chemotherapy and combined chemoradiotherapy appear to be ineffective. The mortality rate is very high, and disease progression is rapid. The overall median duration of survival is less than 6 months. Therefore, new therapeutic modalities are widely sought and needed.

Previously, we reported a case study using a novel diet-based method to treat a patient with acute myelogenous leukemia (AML). AML is another lethal cancer with a very low 5-year survival rate. The nutritional therapy was designed based on our analysis of dietary deficiencies that are common (ly/and) present in cancer patients, as well as new findings on the etiology of cancer that
have identified a link between infections and the emergence of the cancer stem cell.\textsuperscript{6,7} These analyses led to the hypothesis that all cancers share a common initiation pathway, and would therefore benefit from a common therapeutic approach.\textsuperscript{8} Here, we report that this novel nutritional therapy produced tumor regression and clinical improvement in a case of cholangiocarcinoma.

**Case report**

A 79-year-old female presented with pruritus in the beginning of 2007 and was subsequently diagnosed with multiple drug allergies. However, the pruritus remained even after discontinuing the suspected medications. In mid-March 2007, elevated liver enzymes were detected.

ERCP (Endoscopic Retrograde Cholangiopancreatography) exam described a constriction at the confluence of the left and right hepatic bile ducts. Subsequent computed tomography scan detected an ovoid, 1.5x2.5 cm tumor in the plane of the porta hepatis. Surgical exploration discovered a walnut-sized tumor at the confluence of the left and right hepatic bile ducts (Klatskin tumor). The tumor surrounded both the left and right hepatic ducts and on its left side infiltrated the liver. Cholecystectomy was subsequently performed. The tumor was deemed non-resectable. A stent was inserted into the constricted hepatic ducts.

In the beginning of April 2007, the patient began oral administration of the MSQ 15D dietary composition, 2tbsp TID. In the middle of June 2007, liver function test demonstrated reduced levels of enzymes. An abdominal computed tomography exam was subsequently performed that found no tumor around the porta hepatis.
Liver Enzymes Tests & Therapy Progression Notes

<table>
<thead>
<tr>
<th>Date</th>
<th>Akaline Phosphate AP U/l</th>
<th>Gamma GT GGT U/l</th>
<th>Transaminases GOT U/l</th>
<th>Transaminases GPT U/l</th>
<th>Total Bilirubin µmol/l</th>
<th>CA-19-9 U/ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>Averages</td>
<td>45-115</td>
<td>0-30</td>
<td>8-48</td>
<td>7-55</td>
<td>5.1-17</td>
<td>&lt;37</td>
</tr>
<tr>
<td>Mar 2007</td>
<td>1918</td>
<td>2471</td>
<td>226</td>
<td>82</td>
<td>79.3</td>
<td>N/D</td>
</tr>
<tr>
<td>June 2007</td>
<td>1120</td>
<td>437</td>
<td>49</td>
<td>22</td>
<td>19</td>
<td>77</td>
</tr>
<tr>
<td>July 2007</td>
<td>1046</td>
<td>417</td>
<td>49</td>
<td>21</td>
<td>19.5</td>
<td>51</td>
</tr>
<tr>
<td>Aug 2007</td>
<td>952</td>
<td>298</td>
<td>63</td>
<td>33</td>
<td>12.7</td>
<td>57.9</td>
</tr>
<tr>
<td>Sept 2007</td>
<td>1298</td>
<td>474</td>
<td>42</td>
<td>19</td>
<td>17.7</td>
<td>N/D</td>
</tr>
<tr>
<td>Oct 2007</td>
<td>1529</td>
<td>524</td>
<td>77</td>
<td>44</td>
<td>15.7</td>
<td>N/D</td>
</tr>
<tr>
<td>Dec 2007</td>
<td>2681</td>
<td>770</td>
<td>79</td>
<td>45</td>
<td>33.9</td>
<td>159.6</td>
</tr>
<tr>
<td>Feb 2008</td>
<td>2662</td>
<td>878</td>
<td>82</td>
<td>55</td>
<td>36.2</td>
<td>210</td>
</tr>
<tr>
<td>Mar 2008</td>
<td>2672</td>
<td>903</td>
<td>79</td>
<td>34</td>
<td>52.4</td>
<td>405</td>
</tr>
<tr>
<td>June 2008</td>
<td>2569</td>
<td>1057</td>
<td>118</td>
<td>61</td>
<td>65.4</td>
<td>N/D</td>
</tr>
<tr>
<td>July 2008</td>
<td>2659</td>
<td>1058</td>
<td>98</td>
<td>54</td>
<td>48.6</td>
<td>445.3</td>
</tr>
<tr>
<td>Aug 2008</td>
<td>2117</td>
<td>807</td>
<td>77</td>
<td>41</td>
<td>37</td>
<td>N/D</td>
</tr>
</tbody>
</table>

N/D – Not Determined

April 2007 - Patient began oral administration of the MSQ 15D dietary composition, 2tbsp TID.
June 2007 - Liver function test demonstrated reduced levels of enzymes. An abdominal computed tomography exam was subsequently performed that found no tumor around the porta hepatis.
July 2007 - Liver function test demonstrated slightly reduced levels of liver enzymes.
August 2007 - Liver function test demonstrated further decrease in the levels of liver enzymes.
Sept. 2007 - Patient presented with an infection of the urinary tract and was treated with antibiotics. At the end of September 2007, liver function test demonstrated an increase in the levels of liver enzymes. The urine contained large amounts of bacteria. We concluded that the elevation in the enzyme levels could have been triggered by the infection.
October 2007 - Liver function test demonstrated an increase in the levels of liver enzymes. As the patient complained about bone pain, a whole body isotope bone scan was performed that detected no skeletal metastases.
November 2007 - The therapeutic dietary formula was changed to MSQ 15E containing an additional 80ml of apple cider vinegar per quart (947ml).
Mid-Dec. 2007 - Liver function test demonstrated an increase in the levels of liver enzymes.

Early Feb. 2008 - Liver function test demonstrated stabilized levels of liver enzymes with the exception of GGT. The CA 19-9 marker was elevated to 210 U/ml.

Mid March 2008 - Liver function test demonstrated stabilized levels of liver enzymes with the exception of GGT. This time the CA 19-9 marker was 405 U/ml.

Early June 2008 - Liver function test demonstrated stabilized levels of liver enzymes with the exception of GGT. The CA 19-9 marker was not determined.

Early July 2008 - Liver function test demonstrated stabilized or slightly reduced levels of liver enzymes. The CA 19-9 marker was 445.3 U/ml.

End of July 2008 - An abdominal computed tomography test was performed. No tumor was detected in the abdomen. At that point the patient was switched to the MSQ 15F formula containing an additional 1 tsp of cayenne pepper, 1 tbsp of baking soda and 2tsp of apple cider vinegar per quart more in the basic MSQ 15D formula. This was necessitated by the rise of the tumor marker CA 19-9, which suggested possible pancreatic involvement.

Mid-August 2008 - Liver function test again demonstrated reduced levels of liver enzymes. CA 19-9 was not determined. Bacterial level present in the urine was slightly elevated.

At 17 months after diagnosis, the patient is in a satisfactory overall physical condition. The therapy continues.
Discussion

This paper describes a nontoxic, nutrition-based therapy for a case of hilar cholangiocarcinoma (Klatskin tumor). Cholangiocarcinoma is a rapidly lethal cancer of the bile ducts with an incidence of about 1-2 people per 100,000 in the Western world. The incidence of cholangiocarcinoma is rising worldwide. Main presentations include pruritus, fever, weight loss, abnormal liver function tests and jaundice. As cholangiocarcinoma is unresponsive to chemoradiotherapies, surgery remains the only viable therapeutic option, however, since patients commonly present at Stage III-IV when the tumor is already non-resectable, practical options for cholangiocarcinoma are very limited. This is why the 5-year survival of non-resectable cholangiocarcinoma is 0%.

The elderly patient in this case report was inoperable. With no therapeutic option available to her, she chose to take our novel nutritional cancer therapy, the principles of which have been published.

We have found that nutrient deficiency of plant-derived phenolic compounds, folate and vitamin B12 as well as other B vitamins, essential lipids, iodine and several minerals correlate in a variety of cancers, and also increase their incidence. This correlation has led us to reexamine the role of nutrition, unifying perspectives on cancer and recasting it as a single disease, potentially treatable by a single protocol.

From this point of view, we hypothesized that supplementing deficient nutrients in cancer patients might reverse the course of their disease. In a previous case study with an AML patient, we demonstrated the therapeutic effectiveness of this approach.

Recently, we analyzed links between infection, inflammation, and tumorigenesis, specifically examining how chronic infections and tissue inflammation could facilitate the formation of the cancer stem cell. Inflammation of the bile ducts as well as parasitic infections have been identified as causative to the development of cholangiocarcinoma.

Phenolic polysaccharides from molasses used in the MSQ 15 dietary compositions are potent anti-inflammatory and anti-carcinogenic compounds and likely play an important role in suppressing the underlying causes of tumorigenesis. As the gut is a main point of entry of
This study demonstrates the result of our hypothesis in a case of a rapidly lethal cancer, hilar cholangiocarcinoma with an elderly patient. Administration of the MSQ 15D dietary composition led to regression of the tumor as demonstrated by computed tomography scans. The course of the disease is particularly interesting. The elevated liver function markers decreased over the first 5 months of the therapy during which time the tumor also regressed. Subsequent to a urinary tract infection, the markers began to rise. We have earlier found a link between infection and cancer, so it appeared that the infection triggered a reversal of the recovery process. Therefore, we decided to switch over to the more active MSQ 11E composition that contained additional apple cider vinegar, a natural antibiotic.

Over the subsequent 8 months we have seen the liver function markers stabilizing at the elevated levels. Of concern, however, was the rise of the tumor marker CA 19-9, suggesting potential pancreatic involvement. Therefore, we decided to switch to the MSQ 15F dietary composition containing increased apple cider vinegar, baking soda and cayenne pepper. This composition was originally developed for pancreatic adenocarcinoma, another rapidly lethal form of cancer.

The next testing in the middle of August 2008 demonstrated a reduction in liver function test markers. Although the therapy of the patient is still ongoing, we believe it is important to report this case because of the regression of the tumor, as well as the relatively increased survival time of the patient. In a Stage IV, inoperable cholangiocarcinoma, typical patient survival is 1-2 months and we have already passed the 17 months mark with this patient, who is in a satisfactory overall physical condition.

This case study suggests that our novel nutritional therapy may prove to be an effective tool for the management of cholangiocarcinoma, and demonstrates the potential for a common therapeutic approach for cancer. Further studies are warranted to investigate the utility of this therapy in a larger population of patients.

_Contributing Editors Note: There is subjective evidence to suggest that the liver enzymes will remain at elevated levels for as long as 24-36 months before leveling to normal levels. Ongoing follow of this patient will determine if this is verifiable._
References