CASE STUDY

Remission of Hepatocellular Carcinoma in a Patient under Chiropractic Care: A Case Report

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Abstract — This case report describes a course of events associated with the confirmed diagnosis and remission of liver cancer in a 60 year old male patient. In March of 1992, the patient was first diagnosed from alpha-fetal protein levels and CT portagram, with two lesions of approximately 2 cm and 1.6 cm. The larger lesion was confirmed as heptocellular carcinoma, and the second a benign hemangioma. Following nine percutaneous ethanol injections, remission occurred in December of 1993. The patient was also under concurrent chiropractic care during this period. In March of 1995 the carcinoma reappeared with elevated levels of alpha-fetal protein. A CAT scan revealed one, or a cluster of small lesions, collectively 2cm wide and 4 cm long. Surgery was ruled out by the HMO, and the patient declined a second course of percutaneous ethanol injections, or any further medical treatment. However, the patient elected to remain under chiropractic care. In November of 1995, alpha fetal protein levels dropped to "safe" levels, and a follow-up CAT scan revealed no lesions. The present report describes the relationship between the administration of Palmer Specific HIO chiropractic adjustments followed directly by periods of rest, and changes in clinical findings, both during the first and second active episode of the carcinoma. The patient maintained a detailed documented record of medical and chiropractic care, as well as a personal introspection relative to his quality of life during the experience. Commentary is also offered with respect to possible benefits derived from concurrent care. The patient is currently enjoying a life of retirement, and remains under chiropractic care.

Key words: Liver cancer, remission, hepatocellular carcinoma, cancer, chiropractic, Palmer specific HIO, vertebral subluxation.

Introduction

This case report describes a patient who experienced a diagnosis of liver cancer, and two separate remissions. The first remission occurred after extensive medical intervention, and the second in the absence of any medical care. The patient was under consistent Palmer Specific HIO chiropractic care from the onset of the liver cancer through the second remission.

This case report is unique in that the first author is the patient. Because of his training as a research design engineer in rocket propulsion systems, he was inclined to meticulously record the events surrounding his experience with liver cancer. Also, as a chiropractic patient, he was interested in what benefits might arise through the chiropractic care he was receiving in association with the cancerous condition. This report is presented in two stages. The first stage presents the initial liver cancer diagnosis, and subsequent medical intervention with chiropractic as a form of concurrent care. The second stage considers the reoccurrence of liver cancer, and subsequent remission under a chiropractic care only regimen. The relationship between the care regimen and clinical laboratory and imaging findings are evaluated.

Historical Background

The 60 year old patient and his two brothers, both of whom died with liver cancer at age 50 and 52, were infected at birth with hepatitis B. Due to the death of his two brothers from liver

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cancer, and its known link to hepatitis B[1] the patient was under medical surveillance. Periodic testing was conducted for blood levels of alpha-fetal protein (AFP), which is considered a biochemical marker produced by cancer cells in primary cancer or hepatocellular carcinoma.[2] Concentrations above 15 ng/ml are considered of diagnostic value, especially if elevated considerably above this level.

In 1977, the patient presented with low back pain to a practitioner, who is the second author of this report, specializing in the HIO technique developed by B.J. Palmer.[3] After experiencing other chiropractic techniques, the patient made a personal decision to remain under HIO care. He especially felt that the required resting period after the chiropractic adjustment was beneficial and essential for him. Prior to 1992, his chiropractic visits were more on a personal perception of an as needed basis, rather than visiting the chiropractor for consistent spinal evaluations.

First Stage

Initial diagnosis of Liver Cancer and Treatment

In March of 1992, the patient was diagnosed with hepatocellular carcinoma by a Kaiser HMO gastroenterologist. The diagnosis was based on AFP levels of 311 ng/ml and a CT portagram (Table 1, Figure 1) revealing two lesions of approximately 2.0 and 1.6 cm in the right lobe of the liver. The patient had no left liver lobe, only a "stump." The diagnosis was confirmed by two outside specialists, a liver transplant surgeon at the University of California San Francisco, and a liver disease researcher at University of California in Los Angeles. Another Kaiser HMO specialist agreed with the diagnosis and recommended a liver transplant. The HMO Transplant Committee rejected the request based on the patients history with hepatitis B, as it was felt that the new liver would be attacked by the virus. Liver resection was also rejected as too great a risk. The HMO also rejected Cryosurgery due to its cost and experimental status. Alcohol injection, a technique practiced widely in Europe and Asia was chosen as the only medical option. The patient was not expected to survive more than one year without intervention.

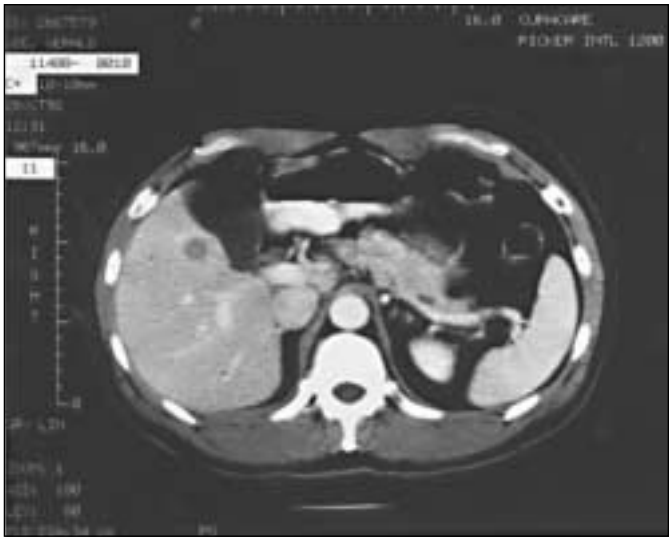

Figure 1. The arrow indicates the largest of two hypodense lesions in the right hepatic lobe of the liver. The radiologist's report of 3/30/92 revealed that the larger lesion, indicated by the arrow, was to the right of the gallbladder, the smaller lesion being more posterior to the gallbladder. The more anterior lesion measured almost 2 cm. The radiologist concluded that these hyodense lesions were not present on a prior CT exam from 1/10/92 and were highly suspicious for neoplasm. This conclusion was confirmed by microscopic evaluation of excised tissue. It was concluded in the pathology report that the finding relative to the larger lesion were diagnostic for heptaocellular carcinoma. The smaller lesion was considered a benign hemangioma. However, it later was also treated with percutaneous alcohol injection therapy.

Prior to this treatment, a tissue biopsy performed in January, 1993 confirmed the malignancy. Survival rates following alcohol injection were, at that time, estimated to be one to five years. Nine sessions of alcohol injection directly into the lesion were conducted under CAT scan between March and November, 1993. AFP levels and/or tissue samples were taken before each session to compare progressive change. By December 21, 1993, the AFP level was 3.3, and the patient was considered to be in remission.

Concurrent Care

A landmark study by Eisenberg et al.,[4] in 1993, revealed the impact of "unconventional medicine," which included chiropractic, in the United States. This categorization is also referred to as "alternative medicine." Consistent with the findings of that study, when the patient in this study sought medical attention, he did not report to medical specialists that he was under chiropractic care. Thus, concurrent care was in effect between March 1992, and December 1993, although it was not known by both disciplines.

Model of Chiropractic Care

The model of chiropractic care administered to the patient is directed to the correction of the condition of vertebral subluxation.[5] It is held by practitioners of this model of care, that all else being equal, the body requires a nervous system free of interference in order for its innate abilities to function optimally. Vertebral subluxation is a condition believed to interfere with the transmission of information through the nervous system. Thus, an assessment is made of the patient at each visit as to whether vertebral subluxation is indicated. These assessments have been described elsewhere.[6] They include, but are not limited to, an initial set of lateral and A-P open mouth x-rays, static palpation of the spine and paraspinal musculature, leg length analysis, and temperature reading of the paraspinal tissues. The HIO technique, as described by Palmer, [7] is limited to manual adjustments, generally to the first cervical vertebra. When an adjustment is warranted, the vectors of application of the adjustment will have been determined from x-ray analysis made by the practitioner.[8]

From the date of the first diagnosis of liver cancer till its first remission, the patient visited the chiropractor on a five day a week basis for analysis and adjustments when appropriate. This routine was only occasionally interrupted.

Table 1. Alpha-Fetal Protein Values and Liver Function Tests over a period of Sixteen Months Following Initial Diagnosis of Hepatocellular Carcinoma

Test Normal range	AFP 0-15 ng/ml	SGOT 14-48 u/l	SGPT 5-71 u/l	Alk.Phos 47-137 u/l	Albumin 3.3-4.7 grams%	Clotting Time 11.6 seconds	Bilirubin 0.2-1.4 mg%	
Date								
3/12/92	311	134	87	148	3.0	14.0	-	
4/3/92	240	37	54	133	3.0	14.4	-	
4/14/92	34	41	44	-	3.0	-	-	
5/7/92	164	33	38	121	3.4	-	0.5	
5/27/92	194	36	38	82	3.5	13.8	0.6	
6/17/92	197	40	38	115	3.9	14.1	0.9	
7/29/92	196	38	43	103	3.7	-	0.5	
8/28/92	247	-	-	-	-	-		-
9/26/92	288	-	-	-	-	-		-
10/23/92	339	-	-	-	-	-		-
11/6/92	341	36	41	105	3.7	-	0.4	
11/25/92	442	36	53	88	4.0	13.1	0.7	
12/24/92	691	34	51	92	3.9	-	0.8	
1/11/93	1098	40	50	82	4.0	-	0.7	
1/22/93	966	-	-	-	-	-	-	
2/5/93	1259	39	44	105	4.0	-	0.4	
3/5/93	1515	44	44	75	3.8	-	0.8	
3/26/93	-	30	29	96	3.9	-	1.0	
6/15/93	-	29	28	64	4.0	-	0.6	
1/1/94	-	25	-	61	-	-	0.8	

Table 2. Alpha Fetal Protein Values and Tissue Biopsy Results Obtained Prior to and after Alcohol Injection Therapy

Test Date	Value (ng/ml)	Injection	Tissue Sample Pathology
10/15/93	506	-	-
10/18/93	-	complete	malignant
10/26/93	177	-	-
11/3//93	78	complete	benign
11/10/93	37	-	-
11/17/93	18	-	-
12/1/93	6.3	-	-
12/21/93	3.3	-	-

Possible Benefits of Concurrent Care

The patient noted in his diary in February, 1993, that even though he had been diagnosed with liver cancer for approximately one year, with AFP levels reaching as high as 1259 ng/ml (Table 1), he did not feel sick. Moreover, liver enzyme function studies such as serum glutamic oxaloacetic transaminase (SGOT) and serum glutamic pyruvate transaminase (SGPT), as well as alkaline phosphatase, and bilirubin levels, while initially elevated, had returned to normal and remained normal by April of 1992. This was less than one month after the initial diagnosis. Only the blood clotting time remained slightly elevated through November, 1992 (Table 1).

Additionally, the last 7 AFP assessments coupled to the percutaneous alcohol injection sessions, revealed a steady decline from October 18, 1993 to December 21, 1993 (Table 2). This decline was evident even though the ninth injection given on November 3, 1993 had missed the malignant tissue. The opinion rendered by an immunologist consultant to the alcohol injection specialist was that the body's immune system must have taken over and eradicated the malignancy from October 18, 1993 through December 21, 1993.

The medical opinion was that in rare cases extreme pain, such as that encountered by the patient during the injection sessions, has been linked to stimulation of the immune system sufficient to induce remission of cancer. However, recent personal communication with the specialist that conducted the alcohol injection sessions reveals that six additional patients have had the same procedure completed, but all six have died.

From March 1992 through July of 1992, the AFP levels had actually declined from 311 ng/ml to 195 ng/ml, although the specialists had predicted extreme levels based on the lack of progress in eliminating the tumors. However, commencing in August of 1992, levels began to rise again from 246 ng/ml to 1515 ng/ml in March of 1993. The patient's diary record shows that he was not under care for a two week period from August 9, 1992 to August 23, 1992. Regardless of the sudden rise in AFP, the patient records that he remained free of illness symptoms, and as can be seen from Table 1, the liver was not compromised.

This level of quality of life, seemingly incongruent with a confirmed diagnosis of hepatocellular carcinoma, has also been reported in a similar fashion elsewhere[9] by a chiropractor, also under chiropractic care, who suffers from lymphoma. Moreover, there is other evidence that quality of life is enhanced with various forms of chiropractic care,[10,11] as well as other health related approaches. While studies are yet to be published which convincingly demonstrate a relationship between enhanced immune function and chiropractic care, the relationship between the immune system and the nervous system has been demonstrated.[12] Since vertebral subluxation is postulated to create nerve interference, it is plausible that the patient benefited through correction of vertebral subluxation. Stage 2 gives further support for this hypothesis.

Second Stage

Reoccurrence of Hepatocellular Carcinoma

The patient remained in remission for most of 1994, with monthly monitored levels of AFP remaining low to absent. In November of 1994 AFP was normal, but SGOT and SGPT were elevated above the normal of 60 units/liter (u/l) and 88 u/l, respectively. The tests were performed by a different method from those reported in Table 1, hence the normal values were different. In December the values were 309 u/l for SGOT, and 516 u/l for SGPT. Other function studies were normal. The patient's diary reports he was nauseated frequently. AFP was not tested at the same time through oversight. However, the medical specialist suggested that the hepatitis B was likely resurfacing and creating some liver damage since the last AFP had been reported at 4.4 ng/ml on December 22, 1994. Subsequent tests on February 22, 1995 revealed elevated levels for SGOT and SGPT and an AFP level of 196 ng/ml. On March 3, 1995, the value was 485 ng/ml. A CAT scan, performed on March 10, 1994 revealed one, or a small cluster of lesions measuring 2cm wide and 4cm long in the left "stub" lobe of the liver. The HMO declined the option of surgery again, based on risk, and offered percutaneous alcohol injection as the only option

Concurrent Care

During this period, the patient's regular chiropractor had retired and as of September, 1994 he was under the care of the individual who had purchased the practice. The chiropractor was also an HIO practitioner. On March 9, 1994, the patient visited the retired chiropractor for a re-evaluation. Following re-assessment of the patient, including an analysis of the most recent set of x-rays, the chiropractor administered an adjustment with a different set of vectors. The patient records that he slept for one hour in the office, drove home and slept for another three hours. On March 10, 1994 the CAT scan was performed.

Cessation of Medical Treatment

The patient declined the only medical option available. The decision was based on a belief that the adjustments he had been receiving from the second chiropractor were not correctly applied, but the re-assessment by his first chiropractor and subsequent adjustment was correct. This conclusion was reached after evaluating the significance of the laboratory data. In hepatocellular carcinoma it is usual for the AFP to rise exponentially over time, more than doubling in a period of days. It can rise up to 100,000 ng/ml. The patient's personal data (Table 3) showed a doubling of AFP between February 22, 1995 and March 3, 1995. As well, following the adjustment given by his first chiropractor, the AFP value on March 15, 1995 was 1250 ng/ml, as might be expected. However, on March 22, 1995 the value increased to 1450 ng/ml, and again on April 12, 1995 was 1740 ng/ml. It was expected by April 12 to be as at least as high as 5000 ng/ml. The patient informed his personal HMO physician that he was receiving "alternative medicine" and requested that he be allowed to continue to have the AFP level monitored on a monthly basis.

Other than declining medical treatment, the patient did not alter his lifestyle by the addition of supplements or other modalities. Palmer Specific HIO chiropractic care continued as before.

Table 3. Alpha-Fetal Protein Values and Liver Function Tests over a Nine Month Period Following Re-occurrence of Hepatocellular Carcinoma.

	Tests*		
	AFP	SGOT	SGPT
Test Date			
2/22/95	196	233	271
3/3/95	485	-	-
3/9/95	Date of Chiropractic Re-evaluation and Adjustment by the First Chiropractor		
3/15/95	1260	202	226
3/22/95	1450	181	194
4/12/95	1740	51	48
	Declination of Medical Treatment and Inauguration of Chiropractic only Regimen		
5/17/95	213	-	-
5/24/95	165	-	-
6/21/95	56	-	-
7/19/95	23	-	-
8/9/95	17	-	-
8/31/95	10	-	-
9/27/95	8	-	-
11/1/95	7	-	-
11/29/95	5	-	-

* Normal values for AFP are 0-15 ng/ml. In Table 3, normal values for SGOT and SGPT were derived from a different test methodology from those presented in Table 1.Normal values in units/liter for SGOT and SGPT reported above were 60 and 88, respectively.

The diary of the patient records a period of extreme fatigue during the month of May, 1995. From March 9, 1995 to the end of the month, the patient received seven adjustments either from the first or second chiropractor. Seven adjustments were also received in the month of April, and three in the month of May. The patient records that he slept approximately three hours after each adjustment. On May15, 1995 the AFP level was 213 ng/ml, declining to 5.0 ng/ml by November, 1995 (Table 3). A CAT scan performed on November 6, 1995 revealed no lesions. The patient is currently living in retirement in Sacramento, California, and remains under chiropractic care.

Summary and Conclusions:

The first stage of this case report describes the progress of a patient with a confirmed diagnosis of hepatocellular carcinoma receiving a medical intervention in the form of percutaneous alcohol injection, and concurrent chiropractic care. The condition entered into remission approximately 21 months after the initial diagnosis. Throughout the course of Stage one, contrary to what might be expected, the patient records that he did not feel sick, but rather expressed what might be considered under other circumstances, a "normal" quality of life. Additionally, clinical data reveals that the liver was not compromised in the active phase of the cancer. Moreover, the AFP levels continued to decline following the last session of alcohol injection therapy even though the alcohol did not engage malignant tissue. The medical opinion, in consultation with an immunologist, was that in rare instances pain can induce the immune system to respond to the point of eliminating a cancerous condition. Another report presents a similar comparisons to the present patient's quality of life response from a patient also under chiropractic care, experiencing active cancer and periods of remission. Moreover, the close connection between the nervous system and the immune system, suggests that chiropractic care may enhance immune status by relieving nerve interference. Additional study, indicating a relationship between quality of life and a form of chiropractic care, also implicates concurrent chiropractic care as beneficial to patients with conditions receiving medical intervention.

Stage two of this case report is more rigorous in the sense that the patient, after confirmation of the reoccurrence of the

cancer, declined any further medical treatment. Given the medical expectation of survival in the absence of medical treatment, the decision had to be based on a firm rationale. The declination of medical treatment followed an evaluation of the AFP levels in conjunction with the timing of the chiropractic adjustment following re-assessment by the first chiropractor. At a time when AFP levels would be expected to minimally double in concentration, levels increased only slightly. A chiropractic only regimen was adopted, during which time the patient did not alter his lifestyle in any way previous to declining medical treatment. Within a period of six months, from reoccurrence of the cancer, AFP had declined to a safe level of 10.0 ng/ml, and by nine months from the point of reoccurrence, a CAT scan revealed no lesions in the liver. Although "spontaneous" or "unexplained" remission cannot be ruled out, the patient records his belief that appropriate chiropractic care was responsible for the response of his immune system to eliminate the cancerous condition.

It is concluded that under the conditions of this report, the form of chiropractic care received was safe and effective as a form of health care. Its benefits should be more thoroughly investigated in order that the best possible concurrent care can be offered to those in need, as well as to promote the best health for those who exhibit no overt disease states or other afflictions. For the present first author of this case report, the proper form of chiropractic care was the HIO technique practiced by "purists," in the sense of adhering to the technique developer's methods. Since evidence exists to suggest that other forms of chiropractic may also be effective in situations similar to that described herein, it may be that different people respond uniquely to the type of care received. Although the present authors are not actively engaged in clinical research they emphasize the importance of investigation into the theoretical aspects of vertebral subluxation, and the consequences of its presence, as well as reported benefits to the patient, which follow its correction.

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