Fibromyalgia And Vehicular Trauma: A Case Report

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Article ID: WMC001001
Article Type: Case Report
Submitted on: 20-Oct-2010, 10:02:01 PM GMT Published on: 21-Oct-2010, 05:30:08 PM GMT
Article URL: http://www.webmedcentral.com/article_view/1001
Subject Categories: ALTERNATIVE MEDICINE
Keywords: Chiropractic care, Manipulation, Fibromyalgia

How to cite the article: Briggs L, Fibromyalgia And Vehicular Trauma: A Case Report. WebmedCentral ALTERNATIVE MEDICINE 2010;1(10):WMC001001

Source(s) of Funding:
Financial support is from the Department of Chiropractic Research, Sherman College of Chiropractic. Spartanburg, South Carolina. 29304.
Fibromyalgia And Vehicular Trauma: A Case Report

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Introduction

Fibromyalgia is a chronic condition characterized by widespread pain in muscles, tendons, and ligaments of susceptible individuals. The patient may also experience a litany of other associated health conditions, such as chronic fatigue and/or migraine headaches, to name a few. Fibromyalgia occurs in about 1 to 2% of the population in the United States [1, 2] and women are more likely to develop the disorder than men [1, 2]. Fibromyalgia symptoms have been observed to begin after a physical or emotional trauma, but in many cases there appears to be no triggering event. [3] The diagnostic criteria and developing contributions to the scientific literature has increased considerably within a relatively short period of time [4-6].

The latent interest, in the author’s opinion, is probably due to the associated disability and the enormous economic affect the condition has on business and industry. Fibromyalgia was once ignored by a large segment of the traditional health care system and was generally dismissed and assumed to be the result of female hormonal imbalances or hysteria [7-9]. The prevailing attitudes in health care at that time made it difficult to provide care and/or manage this condition [7]. In 1990, the American College of Rheumatology set up criteria defining fibromyalgia as widespread pain of more than three months duration in combination with tenderness at 11 or more of 18 specific sites [5]. Widespread pain is defined as pain on the left and right side of the body; as well as, pain above and below the waist [5].

Case Report

This case report is unique in view of the pre traumatic history and long duration of continued chiropractic care after a traumatic event. A 36 year old employed, African American female presented for chiropractic care following a severe soft tissue injury to her neck, upper back, mid back and lower back. She was the driver of an automobile that pulled out into traffic from a shopping center and was struck on the driver’s side door by an on-coming vehicle, reported to be traveling at speeds between 40 to 50 miles per hour. The patient was transported by ambulance to a local hospital emergency room (ER) where x-rays and treatment for her injuries were provided. Radiography revealed no fractures, dislocation or pathologies and the patient was prescribed 800 mg of ibuprofen, a cervical collar, lumbar support, and was released from the hospital after a 7 hour observation period. On release the ER doctor advised the patient to use ice on sore areas for two days and to follow-up with a private physician if the symptoms persisted. The patient was seen in the author’s office for examination and care of her injuries three days following the accident. She was ambulatory but in severe pain. Her cervical range of motion (ROM) was minimal and lifting, bending and twisting of her neck and back increased the severity of the pain. The pain was most severe at night which prevented her from getting adequate sleep.

Patient History

The patient has a childhood history of rheumatic fever secondary to a streptococcal infection (strep throat). The symptoms included fever, sore throat, muscle pain, joint pain, nausea, fatigue and headaches. The age of onset for this condition was 5 years. During the early period (5 through 10 years old) Penicillin was administered as a prophylactic. She had suffered with constant widespread pain most of her childhood and all of her adult life. The patient described the pain intensity level during that time as 2 on a pain intensity scale of 0 to 10, 10 being the most severe level. The patient indicated that the true pain level was probably higher but she had become accustomed to the pain. At age 20 she was diagnosed as having mitral valve prolapsed. There is no history of corrective surgery. Family History

Immediate family history (father, 2 brothers and 1 sister) is unremarkable except for her birth mother who also has a history of rheumatoid arthritis, chronic fatigue, migraine headaches and depression.

Data Analysis

Analysis of grouped symptoms is completed with the Student’s T-test in Excel (Microsoft Corp., Redmond WA). In addition, correlations are completed using Pearson’s product moment coefficient test also performed in Excel, to assess linear association between the groups.
Chiropractic Intervention

A physical examination that included orthopedic, neurological and chiropractic examinations was completed on the initial visit. Physical examination findings were as follows: Decreased lumbar range of motion with pain and decreased cervical ROM with this visit to determine if additional care was necessary and as symptoms improved the number of visits per week were decreased. After the first two weeks the patients visits were decreased to 3 visits per week. This schedule was continued for the next 6 weeks. At this time patient symptoms had improved but an additional four weeks of visits were scheduled in an effort to continue restoration of ROM, reduce pain and improve mobility. Visits were reduced during the final four weeks of care to two visits per week. Over the entire twelve weeks of care, her gait improved to near normal and on release her cervical and lumbar ROM were within normal limits and her pain and discomfort was minimal. (Fig 1) The patient returned to our office in distress from pain after a period of five weeks following her release. Many of the symptoms were the same or similar to the initial complaints but without stiffness and decreased ROM. Her care was extended for two additional weeks and during that time she received some relief but the pain persisted. The patient was referred to an orthopedic physician for a follow-up evaluation. The Orthopedist recommend six week of complete rest, physical therapy and anti-inflammatory medications. After completing the physical therapy she remained in severe pain, so she was examined and treated by a family medical physician. After 3 months of treatment the patient returned to our office with many of the same complaints and some additional associated symptoms not recorded previously. The additional symptoms were depression, disturbances in moods, lack of concentration, sleep disturbance, severe migraine headaches and chronic fatigue. It was recommended that the patient be evaluated by a rheumatologist to rule out conditions with similar symptoms but have prognoses of more serious outcome. The rheumatologist performed a variety of laboratory and physical test which were all negative. The final diagnosis of the rheumatologist was post traumatic fibromyalgia. The patient was returned to our office and a long term maintenance program was initiated. She initially received maintenance care 3 times per week and was reexamined twice per month. The patient was given a self report form and asked to report her pain level at the time of reexamination. In addition, she was asked to record the number of migraine headaches and over all fatigue level at that time, on a scale between 0 through 10 with 0 being no fatigue and 10 being the most extreme fatigued level. The numbers of migraine headaches and the fatigue levels were averaged for each month. As the patient progressed the numbers of office visits were decreased. Table 1 shows the three major symptoms experienced by this patient and the average values obtained for each year of care. Body pain and migraine headaches follow a similar course through out the years of chiropractic care. (Fig 2) In the 13th year the patient’s pain level dropped to pre-traumatic range, then below that level during the 14th year. The patient is then 50 years old. The data obtained in the study is normally distributed as indicated by the skew which equals less or more then (+2/-2) respectively. The t-test between body pain and migraine headaches show no significant difference (t = 0.21) where as there are significant differences observed between body pain and chronic fatigue (t = 0.002) and migraine headaches and chronic fatigue (t = 0.00). The Pearson’s product moment coefficient is completed to assess linearity between the symptoms. A strong positive correlation is seen between body pain and migraine headaches (r = 0.81 p = 0.0004) and weekly positive correlations are seen between body pain and chronic fatigue (r = 0.13 p = 0.68) and migraine headaches and chronic fatigue (r = 0.16 p = 0.58) The most debilitating symptom in this case appears to be chronic fatigue which changes after 3 to 4 years but the average level remains near 6 which is the initial level at the start of maintenance. (Fig 2) It is not clear if her chronic fatigue is part of the fibromyalgia syndrome in this case or if it is a separate and distinct condition.

Discussion

Fibromyalgia (also called fibrositis or fibromyositis) is a syndrome that causes widespread chronic debilitating nonspecific muscle and joint pain. Fibromyalgia symptoms may occur or become more intense following a traumatic event such as a motor vehicle accident (MVA). Today doctors of chiropractic see a relatively large number of patients that are injured in MVA’s, as well as, other types of traumatic occurrences, so it is important to investigate conditions that may lead to or trigger fibromyalgia symptoms. In addition, if fibromyalgia is suspected prior to trauma a complete history and differential diagnosis should be initiated, which may have medico-legal implications. In the present case
for nine months following the automobile accident the patient was totally unable to perform her occupation and incurred difficulty with functions of daily living. Gradually, near the end of the first year when pain levels and associated symptoms were near 6 on the pain and discomfort scale, she is able to resume some of her normal activity. (Fig 2) Clinical observations in this case span a period of 15 years and are presented to emphasize the importance of patience when treating patients with problems that develop into chronic health conditions. Chiropractic manipulative therapy may be thought of as the most effective method of treatment for reducing pain and some other symptoms in this case but more research is needed to substantiate this claim. Decreased pain and stiffness in responses to the adjustments during the acute period are probably due to reduced inflammation to soft tissues (i.e.; joints, ligaments and muscle) damaged during the traumatic event. The healing process usually takes a relatively long period of time (8 to 15 weeks) due to inadequate blood supply to spinal ligaments and tendons. On-the-other-hand, muscle which has a good blood supply, usually heals relatively quickly, substantiated by decreased tension and spasms, as well as, maintenance of an improved ROM observed when the patient returned to our care after her first relapse. The reemergence of the pain is probably due to her fibromyalgia which is theorized to be related to a reduction in pain threshold. The pain experienced by this patient in the chronic phase of care is described as being different from the acute phase. Pain from trauma according to the patient is localized to joints and muscles and affects a specific point of injury. The pain would come and go and was related to the type and amount of physical activity she preformed. Fibromyalgia was described as constant, unrelenting; none stop pain that affected all aspects of her life. However, the patient remained under chiropractic care because the pain intensity was lowered to a level that allowed her to continue to maintain employment and perform other physical demands of daily living. There are other symptoms that are associated with the patient’s fibromyalgia (i.e.; coldness of extremities, sleep disturbance, depression, and mental insufficiency) which were not predictable so have not been included in this assessment. The diagnosis of post traumatic fibromyalgia is not a problem if fibromyalgia pain symptoms develop rapidly, has a clear clinical picture and involves other medical specialist. When vehicular trauma is associated with fibromyalgia and myofascial pain syndrome, the patient evaluation can be complicated because of the similarity of the symptoms. However, it is helpful for the chiropractor to preform a careful history and physical examination, which in turn helps him/her to determine whether the patient potentially has fibromyalgia, myofascial pain syndrome, or a combination of both. An important criterion for differential diagnosis for fibromyalgia is the presence of tender points associated with widespread nonspecific soft tissue pain. In addition, fibromyalgia is usually accompanied by other morbid symptoms. In contrast, myofascial pain syndrome exhibits regional referred pain, with distinct muscular trigger points associated with taut bands of skeletal muscle. Caution should be implemented, because these two clinical conditions may be confused or exaggerated in the medico-legal domain.

Conclusion

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Reviews

Review 1

Review Title: Fibromyalgia associated with Trauma - Treatment Assessment - A Case Study

Posted by Dr. Bill Misner on 14 Sep 2011 03:56:20 PM GMT

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Rating: 8

Comment:
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The following 5 references/review papers present information that may be added to this case study:


The information presented shows the necessity for patience for individual myofascial response to trauma prior to selection of treatment protocols. Family history has a relationship to the event initiating the disorder that this author practitioner determined and skillfully applied.

Competing interests: None.
Invited by the author to make a review on this article? : No

Experience and credentials in the specific area of science:
From 1984-1999, I was a practitioner, [Certified Athletic Trainer] assigned to a Physical Therapy Clinic that treated Fibromyalgia patients.

Publications in the same or a related area of science: Yes


How to cite: Misner B. Fibromyalgia associated with Trauma - Treatment Assessment - A Case Study [Review of the article ‘Fibromyalgia And Vehicular Trauma: A Case Report ’ by ]; WebmedCentral 1970;2(9):REVIEW_REF_NUM945
Review 2

Review Title: Fibromyalgia, trauma and chiropractic care

Posted by Dr. Marco Luchetti on 09 Jul 2011 08:50:29 AM GMT

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Rating: 6

Comment: Very interesting case report on the association between fibromyalgia and trauma treated with chiropractic care.

Competing interests: none

Invited by the author to make a review on this article? : No

Experience and credentials in the specific area of science:
Complementary medicine practitioner. Shiatsu therapist.

Publications in the same or a related area of science: No

How to cite: Luchetti M. Fibromyalgia, trauma and chiropractic care[Review of the article 'Fibromyalgia And Vehicular Trauma: A Case Report ' by J]. WebmedCentral 1970;2(7):REVIEW_REF_NUM846
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