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Acupuncture as a Modality in Low Back Pain

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Abstract

32 years married muslim female having chronic low back pain for four years was treated in the Deaprtment of Physical Medicine, Burdwan Medical College, West Bengal in the year 2005. Patient could not tolerate NSAIDS due to recurrent peptic ulcer. Physiotherapeutic exercises and management with Ultrasonic therapy had to be withdrawn due to nausea and vomiting reported by the patient. Patient was then put on Acupuncture treatment. There was remarkable improvement with Acupuncture within 2 months. Exercise therapy and advice regarding posture care was continued along with acupuncture therapy.

KEY WORDS: Low Back Pain, Acupuncture

Introduction

Low back pain is a common ailment in the practice of Physical Medicine and is a leading cause of loss of (LBP) working days.[1] Everybody experiences LBP once or twice in his/her life. Majority of LBP cases improve without treatment.[2, 3] A numbers of cases improve with medical treatment within a few days. In refractory cases facet joint injection, epidural infiltration and even neurosurgical intervention are needed. But these types of invasive treatment are not available in primary level of hospitals. So a search is done for a modality which is available in primary setup, not costly and can be administered by attending physician with a little training. Acupuncture is such modality which has some scientific basis. [4]

Burdwan Medical College, West Bengal has one Acupuncture unit. One refractory case of chronic LBP, where NSAIDS could not be administered and usual physiotherapeutic heat therapy could not be continued, was advised Acupuncture treatment. Before starting of Acupuncture treatment patient could not walk without assistance due to pain and spasm. There was remarkable improvement and the patient could do usual ADL activities independently within 2 months of Acupuncture therapy.

Case Report

A 32 yrs married muslim lady, resident of Burdwan district of West Bengal, attended OPD of dept. of Physical Medicine with the main complaints were LBP for 4 years and a feeling of tremors of both lower limbs for 4 months.

There was no history of trauma. Bowel and bladder habit were normal. There was no involvement of any other joints or morning stiffness.

Her 1st conception resulted in premature delivery at 7th month of pregnancy. . The baby died 3 days after delivery. Incompetence of uterus was diagnosed as the cause. Thus Shirodkar's operation was done following her 2nd and 3rd pregnancy. The second baby was a female delivered in the year 1993 and still alive.

Whole episode started following her 3rd conception. The patient noticed cessation of movement of the baby at 6th month of pregnancy. Planned abortion was conducted at 7th month of pregnancy. After the abortion, menstrual flow became painful and foul smelling. Lower abdominal pain and low back pain started 4 months after the abortion. For the last 9 months, abdominal pain gradually decreased in intensity but low back pain increased in intensity.

Patient had past history of migranous headache since her childhood for which she used to take paracetamol as self medication.

The patient suffered from pain abdomen with passage of black stool twice, first in the year 1995 following ingestion of some tablet for headache and again in the year 2000 after taking some NSAID for toothache. She was treated for peptic ulcer and was advised to avoid pain killer.

On 22.9.2005, she first attended urology dept. of Medical College Hospital. Kolkata, for accidental finding of stone

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in right kidney in X-ray of lumbosacral spine done for low back pain. From there she was referred to orthopaedic dept. and finally to Physical medicine dept. of Medical College Hospital, Kolkata. From the dept. of Physical Medicine of Medical Hospital, Kolkata she was advised to attend dept. of Physical Medicine Burdwan Medical College, Burdwan as patient was a resident of Burdwan district. Patient first reported at the dept. of Physical Medicine of Burdwan Medical College, Burdwan on 15.10.2005.

She was helped by two of her relatives to walk to the examination room. She could not move her spine due to pain. On examination there was guarding of lumber spinal movement due to pain and spasm but no neurological deficit was detected. No tremor or fasciculation of lower limbs was noted. Bowel and Bladder were not involved.

X-ray L.S Spinal on 4.9.05 showed early degenerative changes along with suspected kidney stone on the right side. UGS lower abdomen done on 15.9.05 showed right sided nephrolithesis. X-ray KUB done on 23.11.05 after treatment at Urology dept of Medical College, Kolkata showed no evidence of any radio opaque calculus in right kidney.

Thyroid function test done on 7.9.05 showed TSH level at 4 μu/ml. Fasting blood sugar on 21.12.05 was 76 mg/dl. Blood examination done on 24.12.05 showed TLC 4100 and ESR 11 mm after first hour.

MRI of L.S. Spine on 3.10.05 reports posterior annular bulge of L4-L5 disc causing pressure on both existing nerves and thecal sac. Height and hydration of all lumber i.v. discs were almost maintained. Lumber vertebrae are normal in height with few osteophytic spicules and end plate changes. Minimal grade 1 anterior spondylolisthesis of L5 over S1 is seen. No evidence of any infective or metastatic lesion was seen.

On her 1st visit in dept. of Physical Medicine, Burdwan Medical College, She was advised to take absolute bed rest for one week. Lumbo-Spinal brace was advised. Ultrasonic therapy to low back was also advised.

Patient could not tolerate ultrasonic therapy**.** On 1st day of therapy she noticed nausea. After 3rd day of therapy, she suffered from repeated vomiting. Ultrasonic therapy was continued but vomiting increased in intensity. On enquiry it was revealed that patient suffered from nausea even on application of dry heat in lower back. So ultrasonic therapy was withdrawn.

After one week there was some improvement of pain but still patient could not walk independently. NSAIDS could not be prescribed as for past history of malena.

So there was search for alternate treatment. Acupuncture was considered and a try was given.

Proper consent was taken from the patient before starting Acupuncture treatment. Acupuncture therapy was started on 23.11.2005. Proper aseptic measures were followed. Acupoints selected were along paraspinal region and lower limbs following principles of anatomical acupuncture. Initially only manual stimulation of the inserted needle and hammering of lower back were done. On the 4th day of treatment, electrical stimulation of the needle (Electroacupunture) was added.

Selected points were UB23, UB25, UB54, UB40, GB30, GB34, and UB60. UB stand for Urinary Bladder Channel and GB stands for Gallbladder Channel.

Initially, alternate day therapy for 20 minutes for 12 sittings was done. Then there was a gap of 7 days. Then biweekly treatment was continued for 4 weeks.

Patient was evaluated for subjective and objective changes. For pain VAS scale (0-10) was used. Patient was evaluated initially before starting of acupuncture treatment, at completion of alternate therapy and finally after completion of biweekly therapy.

Results

At the initiation of the acupuncture treatment, there was excessive pain (Score 10 on a numeric scale) which was lessened to a great extent at the end of alternate day therapy (Score 5). After completion of acupuncture treatment there was minimal pain left. (Score 2)

Before initiation of acupuncture treatment, patient was not able to move her spine due to pain and spasm. Independent standing or walking was not possible. After completion of therapy patient improved so that she could flex her lower spine to some extent with pain. After completion of treatment, patient improved to a great extent so that she was able to do her ADL activities independently with minimal difficulty. She was even able to cross railway over bridge independently.

Discussion

Acupuncture is a component of Traditional Chinese Medicine (TCM).[5] Acupuncture originated in china in prehistoric times. The word 'acupuncture' comes from two Latin words 'acus'(needle) and 'punctura'(puncture). In TCM (Traditional Chinese Medicine), a disease process is thought to be due to disharmony between two opposite forces (yin and yang) and flow of qi. Qi is considered to be vital force concentrated in bilateral pathways or channels called meridians that run longitudinally throughout the body. [6]

The acupuncture would be used to bring yin and yang into balance or to release the stagnation of qi. [7] This is achieved by inserting thin, noncutting needles along the

meridians into specific points called acupoints. [6]

Researchers have considered acupuncture to be a form of neuromodulation. There are two theories regarding pain control achieved by acupuncture. First, acupuncture may stimulate large sensory afferent fibers and suppress pain perception as explained by gate control theory of pain. Second, the needle insertion may act as noxious stimuli and induce endogenous production of opiate like substance to effect pain control.[4]

According to Yellow Emperor,s Classic Internal Medicine, there are 360 acupoints corresponding with 360 days in a year(according to Chinese lunar calendar), but thorough searching reveals only 295 acupoints. The acupoints are organized essentially into 12 meridians (channels) to coincide with the ancient Chinese system of 12 time intervals in the day. [7]

Manual stimulation of the inserted needle is done to generate De. Qi. Sensation, which is considered essential for achieving result of acupuncture treatment. De Qi is usually described as a heavy, numb, aching feeling that is produced when needle enters a acupuncture point. Joseph and Linda concluded that it is not necessary to create this sensation to achieve acupuncture in anatomical basis. Anatomical Acupuncture is the practice of acupuncture using the knowledge of modern anatomy, physiology and pathophysiology. This approach has been developed since 1970 by Dr. Joseph Y Wong. Electroacupuncture is a method where acupuncture needle are stimulated by electrical current instead of manipulation by hand. [8]

In low back pain with or without sciatica, combination of local and distal acupoints is selected. [9]

In the present study, anatomical acupuncture was used. The points selected were paraspinal in lumber spine and on the lower limbs.

Osler, one of the great physician of modern medicine indicated effectiveness of acupuncture in the treatment of lumbago.[6] In a study by Geenfield, 220 patients with the chief complaints of the syndrome of LBP due to various causes, after acupuncture 59% had a reduction of pain to a barely perceptible or zero level lasting from a minimum of 3 months to no recurrence at all.[10]

In the present study, NSAIDS could not be used due to past history of precipitation of peptic ulcer twice following ingestion of drugs for pain. In addition, Ultrasonic or heat therapy could not be continued for precipitation of nausea and vomiting. Nausea and vomiting as a side effect of ultrasound therapy on lower back had not been recorded earlier by any observer.

Conclusion

Low Back Pain is common so far as experience of the physician as well as of patient is concerned. We sometime meet patients where NSAIDS could not be administered either due to GI problem or due to intolerance of the patient. In addition physiotherapeutic modality could not be applied due to intolerance as in the case studied. In some rural set up even basic physiotherapeutic setup is not available. In those setting Acupuncture can come into rescue of the attending physician. Acupunture can be considered as a modality which has some scientific basis and which could be learned by doctors with few months of training. Further exploration of possibility of utilization of Acupuncture in pain management and other areas of rehabilation medicine is needed.

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