

Research Article

Prevalence and effect of myths in clinical orthopaedics in Western part of Uttar Pradesh

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ABSTRACT

Background: Myths in the field of medicine regarding the treatment of health problems are frequently observed, which may not only retard the recovery but often be harmful for the patients. We were baffled to see lot of patients under the influence of certain myths about treatment of their orthopaedic ailments. The aim of this observational, prospective study was to dispel the misconceptions and to create awareness in the society about the bad effects of these myths.

Methods: 1285 patients aged 20-55 years, suffering from fractures, neck pain, backache, osteoarthritis knee, myofascial trigger points, episacroiliac lipomas etc. and being under the influence of one or the other myth about the treatment of their ailments, were included in this study.

Results: All Patients were counseled and made to realize the harmful effects of their false beliefs regarding treatment of their orthopaedic ailments. Every patient was treated as necessitated for the ailment. All patients were found satisfied at the end of treatment, and were happy after dispelling their myths.

Conclusions: Misconceptions do not have any scientific basis rather these are rooted in the society due to high rate of illiteracy and lack of health education. Being a part and parcel of the health care system, it becomes our duty to create awareness among patients about the harmful effects of the prevailing false beliefs by imparting proper health care advice and treatment to relieve the sufferings of our patients.

Keywords: Myth, False belief, Misconception

INTRODUCTION

The myths are defined as stories handed down from ancient times about some religious or cultural practice.¹ The society imbibes these myths from its culture, which is richly impregnated with mythology. Mythology pertains either to a set of stories, traditions, beliefs associated with a particular group or the history of an event, arising naturally or deliberately fostered.² Generally myth is defined as an unfounded or false notion, often used to justify a social or cultural practice, or in a larger perspective a myth is nothing but a misconception.³

Myths pertaining to the fields other than medicine may not cause much harm to the individual or community observing it. But the myths pertaining to the field of medicine carry health risks for the individual or community observing it. In popular use, a myth can be a collectively held belief that has no basis in fact.⁴

We are working in a medical college, situated in the state of Uttar Pradesh, India, and are catering to population suffering from orthopaedic ailments. During the course of treatment of these patients, we were baffled to find that a large number of these patients, not only the illiterate but also the literate ones, are observing certain myths, some

of which quite bizarre, regarding the treatment of their ailments. These patients imbibed these myths from their families or from the society in which these myths have been infiltrated by the so called unqualified custodians of the health, but these myths don't provide much relief to their misery, rather their sufferings are often aggravated.

This common scenario in the outpatient department (OPD) of our institution compelled us to think, can something be done to teach our patients to shun the practice of observing the prevalent myths in the society regarding the treatment of orthopaedic ailments?

It led us to develop an information brochure for the patients explaining the myths and facts for desisting them from observing the false beliefs prevalent in the society and to pursue them to follow the prescribed medical advice to recover from their suffering as early as possible without deterioration of their misery, and without any extra cost to their pockets. The purpose of this study was to create awareness about the bad effects of the prevalent myths not only over the patients but the society as a whole.

METHODS

This study was a observational study of prospective design, which was carried out on a total number of 1285 young adult patients aged 20-55 years, attending the outpatient department of Orthopaedics at Subharti Medical College of Swami Vivekanand Subharti University Meerut, Uttar Pradesh, India, during a period of two years from January 2013 to December 2015.

Out of the total number of patients attending the Orthopaedic OPD, only 1285 patients who were under the influence of some myths regarding the way of treatment, were included in this observational study. All patients were informed about the purpose of study and a written consent to this effect was obtained from each patient.

Table 1: Categorization of patients according to orthopaedic ailments.

Category	Total number of patients	Percentage (%)
Backache	408	31.75
Osteoarthritis knee	402	31.28
Neck pain	208	16.19
Fractures	206	16.03
Miscellaneous	61	4.75
Total	1285	100

Out of the total 1285 patients, 408 (31.75%) patients were seeking treatment for backache with or without sciatica, 402 (31.28%) patients for osteoarthritis knee joints, 208 (16.19%) patients for Neck pain, 206 (16.03%) patients for fractures, and 61 (4.75%) patients

were seeking treatment for miscellaneous problems like myofacial trigger points, episacroiliac lipomas etc. (Table 1).

RESULTS

During a period of 2 years from January 2013 to December 2015, we attended a total of 1285 patients in the Orthopaedic OPD seeking treatment for their different Orthopaedic ailments, and we observed that each of them was under the influence of one or the other misconception regarding the treatment of their problems.

408 (31.75%) patients with a mean age of 33.4 (range 27-48) years (Table 2), with a gender distribution of 287 males and 121 females (M:F = 2.37) (Table 3), seeking treatment for backache with or without sciatica were found to be under the influence of maximum number of false beliefs regarding its treatment, two of which being most bizarre like the one being that sciatica occurs due to collection of impure blood in the veins of leg and can only be cured by its drainage, the second one being that sciatica can easily be cured if the eldest son of any neighbouring house kicks the breech delivered back of the patient.

Table 2: Mean age patients in each category of ailments.

Category	Mean age (Years)	Range (Years)
Backache	33.4	27-48
Osteoarthritis knee	46.8	41-55
Neck pain	30.2	26-52
Fractures	38.7	21-54
Miscellaneous	29.9	21-49

Many of these patients underwent veinesection by some of the quacks but with no respite in their symptoms and most of the patients who tried the second bizarre myth and got their back kicked, came to the hospital with exaggeration of backache as well as radicular pain in the leg.

Most of these patients were lying on the floor without a mattress due to the understanding that it serves as a hard bed and will help in relieving the backache, which on the contrary resulted in aggravation of their pain and stiffness. Another misconception was that one should remain in bed with no exercises till the complete disappearance of pain, but most of these patients could not recover despite bed rest with no exercises for as long as 3-4 weeks.

Most of the patients were having a false belief, that lumbosacral corsets are helpful in relieving the back pain. Some patients were also wearing either an iron ring or black thread in the great toe on the side of sciatica given by some self-proclaimed tantrik to relieve their symptoms

but to no avail. These patients were counseled and were made to understand the harmful effects of these myths especially of the bizarre ones, and were treated by rest on a ply board bed with a mattress not more than 72hrs in acute cases, medication, short wave diathermy, and exercises as soon as the pain lessens. Out of these 408 patients, 151 (37.01%) of backache only, recovered within 7-10 days. Out of remaining 257 (62.99%)

patients of backache with sciatica, 143 (55.64%) recovered with conservative treatment, 38 (14.79%) patients required epidural medication, but 76 (29.57%) patients didn't recover and were advised surgery. Out of these 76 patients, 48 patients got operated, while 16 patients refused surgery but continued with physiotherapy, whereas 12 patients lost in the follow up.

Table 3: Male: Female ratio in each category of ailments.

Category	Total Patients	Male	Female	M:F ratio
Backache	408	287	121	2.37
Osteoarthritis Knee	402	126	276	0.46
Neck pain	208	187	21	8.91
Fractures	206	165	41	4.02
Miscellaneous	61	14	47	0.30

402 (31.28%) patients with a mean age of 46.8 (range 41-55) years (Table 2), with a gender distribution of 126 males and 276 females (M:F = 0.46) (Table 3), seeking treatment for bilateral/unilateral Kellegran's grade 1 to grade 3 osteoarthritis were doing floor level activities and stair climbing, due to the misconception, that if they will not do these activities, their knees will become more stiff, which on the contrary resulted in persistent and increased joint pain.

All these patients were counseled and were made to realize that squatting and regular use of stairs will result into fast deterioration of their knees which may require an early knee replacement. These patients were treated conservatively with medication, quadriceps drill, cycling etc. with a reasonable relief of their symptoms.

208 (16.19%) patients with a mean age of 30.2 (range 26-52) years (Table 2), with a gender distribution of 187 males and 21 females (M:F = 8.91) (Table 3), seeking treatment for neck pain were having a misconception, that in neck pain pillow should not be used, which consequently resulted in aggravation of their neck pain and muscle spasm.

These patients were counseled and made to understand the importance of pillow during sleep and were taught about the type and proper way of using a pillow. All patients were relieved of their neck pain with a proper use of pillow in conjunction with isometric neck exercises, traction, and other medical treatment.

61 (4.75%) patients with a mean age of 29.9 (range 21-49) years (Table 2), with a gender distribution of 14 males and 47 females (M:F = 0.30) (Table 3), were seeking treatment for miscellaneous orthopaedic problems like myofascial trigger points, episacroiliac lipomas, surgical site infections, and osteomyelitis. The

patients with myofascial trigger points, and episacroiliac lipomas, when advised local infiltration with local anesthetic alone or in combination with steroid preparation, were quite skeptical about these injections due to popular false belief that after these injections no treatment will be effective.

These patients were counseled and were convinced to receive local infiltration with a consequent dramatic relief of their symptoms. Patients with infection and osteomyelitis had a peculiar myth that milk and milk products should be avoided in infections as milk results into the formation of pus. These patients were counseled and were convinced that milk doesn't cause pus formation, rather it is a good source of calcium and should, therefore, be a part of the regular diet of all patients.

206 (16.03%) patients with a mean age of 38.7 (range 21-54) years (Table 2), with a gender distribution of 165 males and 41 females (M:F = 4.02) (Table-3), seeking treatment for different fractures of their long bones treated operatively by closed intramedullary nails or conservatively, were under the influence of misconception, that for the healing of fractures lot of calcium supplementation is must and that a fractured bone never regains its original strength.

Some of them were also consuming soup of goat's hoof, said to be a rich source of calcium, thereby putting a lot of burden to their pockets. These patients were counseled and made to realize that calcium supplements are not needed for fracture healing in an otherwise normal healthy patient who is taking a normal balanced diet, and that once a fractured bone is united it regains its original strength in due course of time. 184 (89.32%) patients of fractures attained satisfactory union without any calcium supplements. However 22 (10.68%) patients of fracture

shaft femur and tibia treated initially by intramedullary nails showed disturbed union, due to pre mature unsupported weight bearing, and distraction at the fracture site. out of these 22 patients, 10 were managed by exchange nailing with a one size larger nail and rest of the 12 patients were managed by dynamization. All the 22 patients eventually attained union.

DISCUSSION

It was really surprising to see the prevalence of myths among the patients seeking treatment for their orthopaedic problems in the western part of the state of Uttar Pradesh, India. This study strongly shows that these myths may also be prevalent in the other disciplines of the medicine and in other parts of the country as well, but we are not aware about the types and dimensions of them. But in western part of our state, the prevalence of myths is enormous, which need to be dispelled by proper counseling of patients and their attendants to avoid the ill effects of these myths.

Regarding the myth about the necessity of calcium supplementation for fracture union, we made patients and their attendants to realize that fracture union is a physiological process which helps the bones to undergo the process of union which has evolved over the millennia of mammalian development, without any human assistance.⁵

The human assistance though may be required to keep the fracture in good alignment by external or internal splintage to prevent malunion.

Therefore, the calcium supplements are not needed in an otherwise healthy patient, who is taking normal balanced diet, however calcium supplements may be required in a malnourished patient or in elderly osteoporotic patients. Fractured bones once united in satisfactory alignment are capable of remodeling and ultimately regain its original strength and resilience with passage of time.⁶

Regarding the myth about not using pillow in cases of neck pain during sleep, we must make the patients to understand the need of maintaining the correct posture during sleep to avoid increased pain and discomfort at night.

If patient sleeps on a thick pillow, it increases the flexion of neck, but if the patient doesn't use a pillow, the neck falls back in extension with a consequent increase in pain in both the instances, and therefore it is of utmost importance to maintain the normal lordotic curve of the cervical spine with a cervical contour pillow, which is an essential adjunct in the treatment of neck pain.⁷

Regarding the myth about the use of hard bed in cases of backache, we must discourage the patients to lie on the floor rather they should be advised to use a ply board bed with a firm mattress, and should be asked to sleep on the

side with one or both limbs flexed at the hip and knee joints (semi Fowler position), with a pillow between the legs, to obliterate the lumbosacral angle, and should avoid sleeping in a prone position that increases the lumbosacral angle causing exaggeration of the pain.⁸⁻¹⁰ Other myths about the duration of bed rest, initiation of exercises, and use of lumbosacral corsets need to be dispelled by explaining to patients, that in acute backache a bed rest of more than 2 days has not been found to be very effective, and as soon as the pain decreases in intensity with application of ice, massage, and NSAIDs, patients should be encouraged out of bed to roam indoors with ordinary activities of daily living, and isometric exercises for the abdominal and back muscles should be started, which help in an early recovery, while a longer duration of bed rest increases disability.^{10,11}

Similarly the use of lumbosacral corset should be allowed only in the acute phase of the backache and should be discarded once the acute pain subsides, because a prolonged use of the corset limits the back movements which results into atrophy of the back muscles and slows down the recovery.⁹

The two most bizarre myths about the treatment of sciatica like draining of impure blood from the leg veins and getting the back kicked by the breech delivered eldest son of any neighbouring house need to be condemned strongly, as these two myths are not only bizarre but may be dangerous for the patients.

Therefore patients must be made to understand that the sciatica is a condition in which the pain is felt in the distribution of the sciatic nerve i.e. in the back side of the lower limb due to pressure over the nerve from a number of intraspinal, intrapelvic, and extrapelvic causes, and is never due to any dirty blood in the body and that veinesection or a kick on the back will never relieve the symptoms, rather on the contrary it may cause more damage.¹²

Regarding the myth about squatting, floor level activities, use of Indian toilets, and stair climbing among the patients of osteoarthritis knee, we should explain to the patients, that activities requiring squatting and climbing pose enormous abnormal joint loading, which may be very detrimental to the already worn out cartilage of the joint.¹³

In reference to the myth about the local infiltration for the treatment of myofascial trigger points, and episacroiliac lipomas, we should convince the patients that these trigger points are the hypersensitive areas in the muscles resulting in the formation of a nodule which triggers the pain, while the episacroiliac lipomas are the nodules of fibrofatty tissue about the posterior iliac crest and over the sacrum due to herniation through the small openings in the fascia which when gets stretched causes pain in the back and may also cause referred pain in the leg and the treatment of both these problems is local infiltration with

1% lidocaine alone or in combination with a steroid preparation, that might give dramatic relief, and that these injections are not given in the bone but in the muscles and are not harmful.^{14,15}

All these myths, prevalent in western part of Uttar Pradesh and which have been discussed in detail, are not at all a part of our cultural mythoplasm, rather they have been infiltrated into the society by means of some old grand ma's tales or by the narratives our mom told us when we all were little or more importantly by the so called unqualified custodians of the health. There is no scientific basis for all these misconceptions, rather these are rooting in the society due to high rate of illiteracy and lack of health education, which should be imparted, by our government health care system and other supportive agencies.

According to Holey Phillip M.D Linx hospital New York city – the mantra “an apple a day keeps the doctor away” is true sort of. But still nobody knows, are apples really capable of keeping the doctor away? But we certainly believe that apples might help.

Similarly, being a part and parcel of the health care system, it becomes our duty to dispel the prevailing false beliefs and to impart proper health care advice and treatment to relieve the sufferings of our patients. We do not know, how far and how successful we will be in our endeavor to this effect? But we certainly believe that we might help by sincerely educating our patients about the ill effects of all these prevailing myths in the society.

CONCLUSION

Misconceptions do not have any scientific basis rather these are rooted in the society due to high rate of illiteracy and lack of health education. Being a part and parcel of the health care system, it becomes our duty to create awareness among patients about the harmful effects of the prevailing false beliefs by imparting proper health care advice and treatment to relieve the sufferings of our patients.

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