



AN OBJECTIVE STUDY OF IMPORTANCE OF “NO TOUCH TECHNIQUE” IN TREATING PATIENTS WITH LOW BACK PAIN DURING ONGOING COVID-19 PANDEMIC.

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ABSTRACT The present covid-19 Pandemic has challenged the medical fraternity in an unprecedented manner. The care giver is required to provide quality care having minimal or no physical contact with the patient. This limitation makes the job of a Spine surgeon daunting especially for treating patients with low back pain. Rising up to the challenge; we fall back to century old practice of medicine where, most of the diseases could be diagnosed mostly by History taking. To overcome the present situation modern spine surgeon will have to rely on History taking, avoiding physical contact and also make use of existing technology to deliver quality health care. This research paper evaluates the role of good history taking in treating patients of low back pain. **AIM:** A Prospective study to evaluate the role of history taking in diagnosing and treating patients of low back pain in the context of ongoing covid-19 pandemic. This study also attempts to compare the efficacy of no touch technique with the conventional method which also includes physical examination, and investigations (laboratory/imaging modalities). **MATERIALS & METHODS:** This single institutional observation study was carried out from Jan to June 2020. Patients with low back pain sharing similar clinical profile were evaluated by allotting them into two groups. The NonCovid group consisted of patients (total 34) who were managed by conventional method in the pre covid pandemic period (01 Jan 2020 to 20 March 2020). The Covid group consisted of patients (total 34) who reported during the lockdown period from 23 March to 21 May 2020. They were managed on basis of history taking alone avoiding physical contact for examination. The time spent with each patient was recorded and pain relief was judged by the patient on a score of 0 to 100. This was recorded prior to treatment and two weeks following treatment. **RESULT:** On the basis of history taking without physical contact, the covid group reported 84% pain relief while the non covid group where the conventional method was used, reported 85% pain relief at the end of two weeks. The time spent with each patient was higher in the covid group as compared to the non covid group (32 minutes versus 18 minutes). **CONCLUSION:** The long forgotten art of history still taking holds good for treating patients with low back pain. With the ongoing pandemic, the no touch technique seems a feasible option for outpatient management of low back pain.

KEYWORDS : Low Back Pain, No touch Technique, Covid Pandemic

INTRODUCTION

Always listen to your patient, they might be telling you the diagnosis.
Sir William Osler 1849-1919

In 1976, Warner Slack at Harvard Medical School wrote “The largest and least utilized healthcare resource is the patient him/herself.” The History taking exercise is an attempt to maximize utilization of this underutilized resource.

Since the time of inception of modern medicine, diagnosing a condition correctly, was considered most important to ensuring successful treatment for any disease. History taking has been considered as the strongest pillar in diagnosing and treating disease. In 1947 Platt claimed that History alone can clinch the diagnosis in most of the diseases. [1] In 1975 Hampton and co-workers through their prospective study concluded that History taking itself established the diagnosis in 82% patients while physical examination and additional investigations added on to it by 9% each. [2] Study conducted by Peterson and colleagues in 1992 also arrived at a near similar conclusion. [3]

21st century has got technology making inroads into all aspects of health care. With increasing stress on quality, the focus on diagnosis and treatment is based more on imaging and laboratory investigations rather than history taking and physical examination. There has been a paradigm shift in the diagnostic methodology. Imaging has begun to take precedence over history taking and physical examination in the sequence of events. As we evolve in health care the art of history taking seems to be pushed into the oblivion.

The current Covid Pandemic has thrown up a fresh challenge to medical fraternity. Medical practice is undergoing a transformation. History taking which was being pushed to oblivion is slowly taking precedence in the schema of diagnosing and treating diseases. The fear of spread of corona virus is prompting doctors to adopt the “no touch technique” in treating patients. The challenge is to arrive at a diagnosis and treat effectively with minimal physical contact.

This prospective study owes its genesis to this back drop. Numerous studies in the past have established the fact beyond doubt that a good history taking helps in hitting the right diagnosis in 70 to 80 % cases. However no study so far has been conducted for treatment of low back

pain in the present day context. This study compares treatment of Low back pain as per current conventions before and during the covid pandemic.

AIM

To quantitate the importance of history taking by no touch technique making diagnoses and managing patients with low back pain during the ongoing covid-19 pandemic. This study also attempts to compare the efficacy of no touch technique with the conventional method which also includes physical examination, and investigations (laboratory/imaging modalities).

MATERIALS & METHODS

This was a single institute observational study in which patients with complaints of low back pain were evaluated. Only those patients with previously undiagnosed low back pain condition were included in the study. They were placed in two groups. The clinical profile of both groups in terms of age and sex were comparable. The NonCovid group consisted of patients (total 34) who were managed by conventional method in the pre covid pandemic period (01 Jan 2020 to 20 March 2020). The Covid group consisted of patients (total 34) who reported during the lockdown period from 23 March to 21 May 2020 and were managed on basis of history taking alone without making actual physical contact for examination. This was called the no touch technique. The time spent with each patient was recorded and symptomatic relief on a score of 0 to 100 was recorded prior to treatment and two weeks following treatment.

Physical examination with Imaging was ordered when active/emergency intervention was contemplated. Otherwise all patients were treated with pharmacotherapy, physiotherapy, counseling and telephonic follow up. Treatment was considered satisfactory if the patient reported relief in pain by 50 percent or more. Those who reported satisfactory improvement were continued on conservative management. While those with less than 50% after 2 weeks of treatment were reevaluated with further investigations. If required treatment modality was changed. Each patient was interviewed at the end of two weeks of treatment. Data was collected and conclusions drawn.

RESULTS

Of the 34 patients treated in the covid group 26 were managed

satisfactorily without making physical contact. 8 required physical examination and further investigation while 1 required surgical intervention. 28 patients (84%) reported satisfactory pain relief at the end of two weeks. Patients with acute onset pain and those requiring emergency surgery reported maximum pain relief while those with radicular pain and neurogenic claudication reported lesser pain relief.

Of the 34 patient treated in the pre covid group 28 were managed by history taking, Physical examination, 6 were further evaluated with MRI and biochemical tests and 2 required surgery. 29 patients (85%) reported satisfactory pain relief at the end of two weeks.

Table 1: showing the pattern of distribution of Low back pain patients

Provisional Diagnosis	Covid Group	Non Covid Group
Mechanical Low Back Pain	26	22
Mechanical Low Back Pain + Radicular Pain	04	06
Mechanical Low Back Pain + Radicular Pain+ Neurogenic Claudication	03	04
Axial Pain (Non-specific)	01	02

Table 2: Showing the treatment protocol followed in managing the Covid group

Diagnosis(Covid Group)	No of Patients	Treatment protocol	Improvement percentage
Mechanical pain(Acute)	04	48 hours bed rest + NSAID+ muscle relaxant+ local heat application followed by ambulation and spine strengthening exercises	(4/4) 100%
Mechanical pain + radicular pain	24	Muscle relaxant+ NSAID+ Acetaaminophen (SOS)+Gabapantine + supervised physiotherapy+ life style /work ergonomic modifications+ counselling(dos & dants)	(18/25) 75%
Mechanical Pain+ radicular + Neurogenic claudication	06	Muscle relaxant+ NSAID (SOS)+ Acetaaminophen+ Gabapantine+ Physiotherapy+ life style /work ergonomic modification+ counseling	(04/06) 66%
No satisfactory improvement in two weeks	06	All of the above + Nortryptiline+ more detailed history of work ergonomics	(05/06) 83%
Pain with motor weakness	01	Decompressive surgery	(01/01) 100%

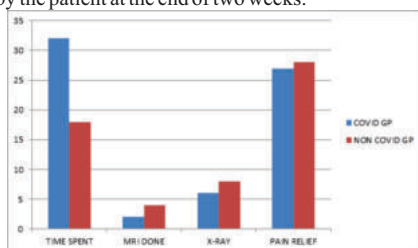
Table 3: Average time spent in minutes

Visit	Non Covid Group	Covid Group
First	18	32
Second	06	16

Table 4: Treatment satisfaction level comparison at the end of two weeks

Treatment Group	Patient Satisfaction
Covid Group	84%
Non Covid Group	85%

Chart 1: Comparing the two groups covid group (n=34), non covid group(n=34) in parameters of time spent (in minutes), MRI and X-Ray LumboSacral spine investigation ordered and the pain relief as reported by the patient at the end of two weeks.



CONCLUSION

Our study objectively shows that diagnosing and treating low back pain using no touch technique is a feasible option during the ongoing covid pandemic. The short outcomes are comparable to the conventional method which was being followed prior to the pandemic.

DISCUSSION

Low back pain, (LBP) is a pain in the lumbar spinal region with or without sciatica. It has a lifetime prevalence of 60 to 85% worldwide. [4, 5, 6]. In up to 95% of cases it may be nonspecific and majority of patients show satisfactory response to conservative management. [7, 8]. MRI is the investigation of choice in evaluating patients with back pain. It is the most useful method for the detection of spinal infections, spinal metastases, nerve root disorders and disc abnormalities. Also with multiple abnormal findings the pain generating structure is not always clear to the treating surgeon. Its role in diagnosing pain etiology remains controversial. [9, 10]. The imaging findings coupled with clinical information help in reaching the correct diagnosis and deciding on the right treatment modality. [11, 12]

Clinical information gathered by astute clinician through history taking and physical examination play an important role in ascertaining the etiology of pain and subsequently in drawing out a treatment protocol. In majority of patients the etiology is nonspecific and outcomes good. Most patients can be treated only on the basis of good history with eliciting of findings which can either confirm or exclude a sinister etiology. Intelligent history by a fairly experienced surgeon can ensure accurate etiological diagnosis and ensure adequate pain relief.

In 1975 Hampton and co-workers [2], attempted to evaluate the relative contributions of the history, the physical examination, and laboratory tests in making medical diagnoses, in their study of 80 referral patients, at a general medicine clinic. They found that the diagnosis predicted after taking the history agreed with the accepted diagnosis two months after the initial visit in 66 of the 80 patients (82%). The physical examination led to the diagnosis in 7 patients (9%), and the laboratory investigation led to the diagnosis in the other 7 patients (9%).

Study to objectively assess the importance of history taking, physical examination and laboratory investigations were conducted by Peterson et al in 1992. In this prospective study of 80 medical outpatients with new or previously undiagnosed conditions, internists were asked to list their differential diagnoses and to estimate their confidence in each diagnostic possibility after the history, after the physical examination, and after the laboratory investigation. In 61 patients (76%), the history led to the final diagnosis. The physical examination led to the diagnosis in 10 patients (12%), and the laboratory investigation led to the diagnosis in 9 patients (11%). The internists' confidence in the correct diagnosis increased from 7.1 on a scale of 1 to 10 after the history to 8.2 after the physical examination and 9.3 after the laboratory investigation. [3].

From these numerous studies it can be concluded that History taking is an art which is very vital in diagnosing and treating any disease condition. Our study proves that Low Back pain is no exception. With restrictions on physical contact in present times it has assumed more prominence in the schema of health care. Time is ripe to revive this art which is actually not a mere tool for diagnosis but also works to establish a rapport and empathizes with the patient. Spending more time with the patient and listening, helps in knowing the disease process better. Knowing the kind of life style and physical activity throws a lot of light on the etiology of back pain and also guides the management. These factors go a long way in alleviating pain and improving quality of life. After all at the end what matters is the clinician's effectiveness in relieving his patients fear and anxiety.

Our study included a relatively small sample of population in the given time frame. However notwithstanding the same, it conclusively proves the importance of history taking in treating patients with low back pain. We as healthcare workers may be more knowledgeable about medicine. But the patient too is a specialist as he has that special knowledge about himself/herself of which, we are ignorant. It is therefore imperative that patient should be made a partner in his/her own health care. With Telemedicine and incorporation of Big Data Analytics, artificial intelligence and robotics, diagnostic accuracy by no touch technique is all poised to hit a further high. The Covid Pandemic has given a stimulus to human mind to change the dynamics of health care. As trials and tribulations are certain so is victory.

CONFLICT OF INTEREST

None to declare

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