

## A rare case of acute lumbar strain

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### Article history

Received 02 March 2022

Received in revised form 15 April 2022

Accepted 26 April 2022

Available online 30 April 2022

## ABSTRACT

**Introduction:** Acute lumbar pain is a suddenly caused pain in the lower back region, and there are spasms in the lower back that result in more severe pain. It occurs in all age groups. The first attack of the lower back pain is typically caused at the age of 30-50. Acute lumbar strain is caused by pushing or tugging and weight lifting heavy objects too heavy for the person's capacity. Most cases of acute lumbar strain can be treated in two to three weeks; if you can cure or take a proper precaution, then it will not cause any injury in the low back region and cannot cause any complications in the health. The lower back pain is healed by cold applications such as ice bags (to reduce the pain and swelling), and heat is applied to the back to prevent the pain.

**Clinical findings:** Pain in the lower back region also creates spasms in the lower back region.

**Diagnostic evaluation:** Blood test: Hb-15.6 gm%, Total RBC count-4.7millions/cu mm, Total WBC count-70000-8000/cu mm, Total Platelet count-2.8 lacs/cu mm, Albumin-4.5 gm%, Bilirubin (conjugated)-0.3 gm%, Bilirubin (unconjugated)-1.0 gm%.

**Therapeutic intervention:** The physician suggests non-steroidal anti-inflammatory drugs and pain killers, and a physiotherapist recommends muscle relaxation exercises.

**Outcome:** After the specialized Treatment, the patient's pain is relieved, and the patient feels very relaxed; now, the patient has a good condition till the last date of care.

**Conclusion:** The patient was admitted with a chief complaint of pain in the lower back region, pain associated while walking, and the patient was not able to sleep properly; there was a disturbed sleeping pattern of the patient. Diagnosed with a case of acute lumbar strain after getting proper treatment and the patient condition was improved.

**Keywords:** Lumbar Strain, Lower Back Pain, Spasm

This article reviewed by Mr. Shoaib Khan, Dr. Ram. Edited by Dr. Pradeep J., Dr. S Gaur.  
Available online 30 April 2022.  
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## **INTRODUCTION**

Acute lumbar strain is a suddenly caused pain in the lower back region or an injury cause in the lower back region (lumbar), which results in the damage of muscles and tendons that can feel sore [1]. The inflammation occurs in the lumbar region, the L1-L5 vertebrae. Acute lumbar strain is usually onset at 20-40 years of age. Its duration is upto approximate 65 percentage, and two to three weeks are needed for better health [2]. A lumbar spine consists of 5 vertebrae that contain multiple bony elements and that skeletal elements are interlinked by flexible ligament, tendon, capsular joints and various types of highly protective muscle and provide different types of loose movements having sensitive nerves (spinal nerves and cranial nerves) [3]. Acute lumbar pain lasts for 2-3 months, and the pain is most intense one or two days (24-48hrs) after the injury. Acute lumbar strain is caused by the pushing or pulling and weight lifting the heavy objects, which are over weighted the person's capacity. In addition, acute lower back pain is also caused by sports events such as playing football, table tennis, basketball, and golf, leading to injury to the lower back region [4]. Some low back pain is caused by excessive damage to the vertebral lumbar (disc). To identify this cause, asks the patient to strain his leg, which can be examined very quickly [5].

There are specific risk factors such as a weak back, forward-tilted pelvic region, excessive curvature of the lower back region, and abdominal injury that can increase the risk of injury to cause lumbar pain [6].

**Present medical history:** A patient age 60 years old was admitted in the orthopaedic ward on 15 Nov 2021, having a chief complaint of pain in the lower back region for two to three weeks, and the condition of the patient is very dull.

**Past medical history:** A patient age 60 years old does not have any past medical history such as diabetes mellitus, hypertension etc.

**Family history:** A patient belongs to a nuclear family and has four members in his family.

**Psychological history:** A patient does not have any psychological history, and the client is aware of the time, place and person.

**Clinical findings:** Pain is in the lower back region. Pain is during the walking and tingling in the back for two to three weeks.

**Physical examination:** There are no abnormalities in the head to foot assessment, but there are abnormalities in the spine's curvature in the lower back region.

**Diagnostic assessment:** CT scan of the lumbar was identified irregular muscles. And it is done to assess the spine for tumours and another internal-external injuries.

**Therapeutic intervention:** A physician advises on certain drugs such as painkillers and anti-inflammatory medications to reduce the pain, which takes a patient at a regular interval of time.

**Follow up and outcome:** Follow up the medications, the physician administers, take a proper diet, make a habit of doing an exercise recommended by the physiotherapist and

maintain good personal hygiene, and if necessary come to regular treatment as advised by the doctors.

**Nursing perspective:** Assess the patient's general condition and check all the vital signs such as temperature, pulse, respiration, etc. The patient's proper hygiene was maintained; treatment was done successfully.

**Care of bedsore:** Bedsore is also a pressure sore. It can be prevented by changing the position of the patient regularly. Also, it can be prevented by applying a back massage and back care.

## **DISCUSSION**

The patient, age 60, was admitted on 15 Nov 2021 with a chief complaint of acute pain in the lower back region. He was a known case of acute lumbar strain. As soon as he was admitted to the hospital, investigation and treatment were done as possible. The treatment was going on, and the patient's condition improved until the treatment was going on the last date of care.

The study was done to assess the cause and conditions of the disease and to study the clinical management practices and clinical presentation. For the study, there were a collection of patient case sheet and that case sheet were recorded and examined for the specialized cases in India. During this study, there were found that most of the 30-50 years age group people can cause this type of disease and less common in the children of age group 10-20 years. In this particular disease, the patient was suffering from severe pain. All those studies had some specific aspects related to the acute lumbar disease [7].

The low back pain was managed by physical management, providing an effective medication and making a proper treatment and surgery. In physical management; provide an exercise therapy that can reduce the low back pain and improve the physical strength and muscle strength. There is no evidence to enhance the physical strength from one therapy to the other. A patient was motivated to do yoga and physical exercise to reduce the low back pain [8]. Another therapy was medication therapy to reduce the low back pain. The medication was recommended and lasts for its duration—the medication such as pain killer relieves the

pain for its duration period. If the pain is not managed and the patient is not comfortable, then the adequate amount of morphine is recommended. The other therapy is a surgical treatment to reduce the low back pain in which there is finding an actual problem and provide a specialized treatment according to the disease condition. The discectomy is done for the removal of a disc if necessary [9].

## **CONCLUSION**

Acute lumbar strain is most of the most common diseases caused in the age group of 20-30 years old and suffering from severe pain. It is essential to take preventive measures.

## **DECLARATION OF COMPETING INTEREST**

All authors declare no conflicts of interest.

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