

ORIGINAL RESEARCH

Assessment of management of acute low backache in emergency department

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Received: 12March, 2023

Accepted: 18April, 2023

ABSTRACT

Background: The majority of acute and chronic LBP cases are non-urgent, and clinical practice guidelines recommend that patients with LBP be handled in primary care. The present study was conducted to assess management of acute low backache in emergency department.

Materials & Methods: 128 patients of low back pain of both genders were enrolled. Height, weight, body mass index (BMI), marital status and education level were recorded. The use of previous medication, sudden onset of pain (if the pain started suddenly) and duration of symptoms were also recorded.

Results: Out of 128 patients, males were 56 and females were 72. The mean body mass index was 26.4kg/m², previous medication intake was seen in 53.8%, previous LBP episode in 61.2%, sudden onset of pain in 81.6%, duration of symptoms was 1.2weeks and there were 47.2% married. Commonly used drugs was opioids in 12%, NSAIDs in 34%, corticosteroids in 14%, muscle relaxants in 8%, NSAIDs and corticosteroids in 6%, NSAIDs and opioids in 16%, opioids and corticosteroids in 7% and opioids and muscle relaxants in 3%. The difference was significant (P< 0.05).

Conclusion: Maximum patients had sudden onset of pain. Commonly used drugs was NSAIDs, corticosteroids and opioids.

Key words: low back pain, opioids, NSAIDs.

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Introduction

Although low back pain (LBP) is the most common cause of disability worldwide, acute LBP (symptoms lasting less than 6 weeks) has a favourable prognosis, whereas chronic LBP (symptoms lasting more than 12 weeks) has a very poor prognosis.¹The majority of acute and chronic LBP cases are non-urgent, and clinical practice guidelines recommend that patients with LBP be handled in primary care. However, a significant majority of LBP patients are treated in emergency departments.² The main symptoms experienced include dull or sharp pain in the lower back region, localized to the lumbar spine area, occasional shooting pain down the legs, suggestive of possible sciatica, limited range of motion, especially during bending, lifting, or prolonged sitting/standing, mild discomfort during rest or when changing positions.³Try to avoid excessive physical strain and engaged in adequate rest whenever possible. Alternating between applying ice packs and warm compresses to alleviate inflammation. Used nonsteroidal anti-inflammatory drugs (NSAIDs) like

ibuprofen, as per recommended dosage. Attempted gentle stretching and strengthening exercises to support the core muscles.⁴ EDs are typically packed, and many patients with LBP are discharged without sufficient care. Patients with non-specific LBP generally receive more specialized care than is necessary, and patients are rarely educated or reassured about how to control their symptoms.⁵ Despite the increasing demand for patients with LBP in EDs, there are little initiatives to improve clinical practice guidelines-based care for these patients.⁶The present study was conducted to assess management of acute lowbackache in emergency department.

Materials & Methods

The present study consisted of 128 patients of low back pain of both genders. All gave their written consent to participate in the study. Data such as name, age, gender etc. was recorded. Height, weight, body mass index (BMI), marital status and education level were recorded. The use of previous medication, sudden onset of pain (if the pain started suddenly) and

duration of symptoms were also recorded. Data thus < 0.05 was considered significant. obtained were subjected to statistical analysis. P value

Results

Table I: Distribution of patients

Total- 128		
Gender	Male	Female
Number	56	72

Table I shows that out of 128 patients, males were 56 and females were 72.

Table II: Clinical characteristics of patients

Characteristics	Number
Body mass index (kg/m ²)	26.4
Previous medication intake(%)	53.8
Previous LBP episode(%)	61.2
Sudden onset of pain(%)	81.6
Duration of symptoms (weeks)	1.2
Married (%)	47.2

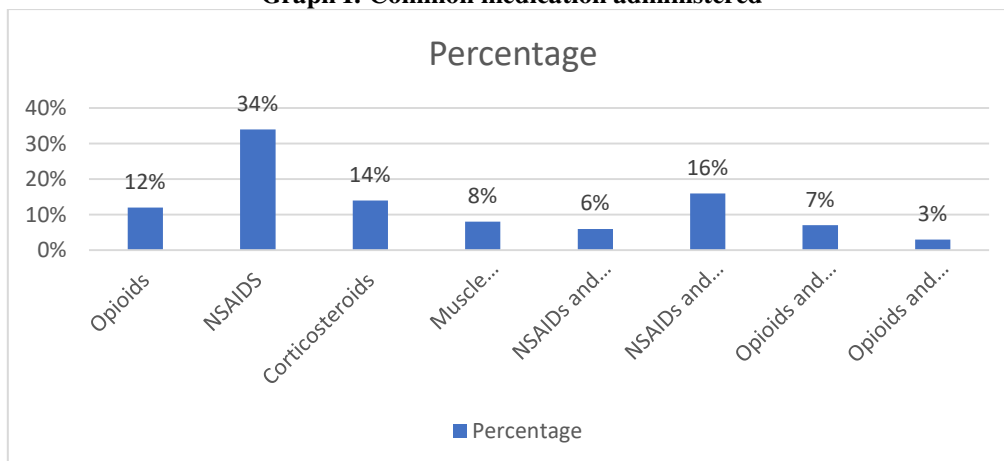
Table II shows that mean body mass index was 26.4kg/m², previous medication intake was seen in 53.8%, previous LBP episode in 61.2%, sudden onset of pain in 81.6%, duration of symptoms was 1.2weeks and there were 47.2% married.

Drug	Percentage	P value
Opioids	12%	0.02
NSAIDS	34%	
Corticosteroids	14%	
Muscle relaxants	8%	
NSAIDs and corticosteroids	6%	
NSAIDs and opioids	16%	
Opioids and corticosteroids	7%	
Opioids and muscle relaxants	3%	

Table III: Common medication administered

Table III, graph I shows that commonly used drugs was opioids in 12%, NSAIDS in 34%, corticosteroids in 14%, muscle relaxants in 8%, NSAIDs and corticosteroids in 6%, NSAIDs and opioids in 16%, opioids and corticosteroids in 7% and opioids and muscle relaxants in 3%. The difference was significant (P< 0.05).

Graph I: Common medication administered



Discussion

Low back pain (LBP) is regarded as a symptom rather than a condition. Ligaments, facet joints, paravertebral musculature and fascia, intervertebral discs, and spinal nerve roots have all been implicated as pain generators.⁷ Despite this, 85% of patients with isolated back pain do not have a specific reason for their symptoms.⁸ The aetiologies are classified as mechanical, systemic, or referred. By far the most common cause (97%) is mechanical, with "non-specific LBP" being the most common kind.^{9,10} The present study was conducted to assess management of acute lowbackache in emergency department. We found that out of 128 patients, males were 56 and females were 72. Oliveira IS et al¹¹ conducted a study with 600 patients with low back pain presenting in four public emergency departments. Of all patients, 12.5% (n=75) underwent some diagnostic imaging tests. Medication was administered to 94.7% (n=568) of patients. The most common medications were non-steroidal anti-inflammatory drugs (71.3%; n=428), opioids (29%; n=174) and corticosteroids (22.5%; n=135). Only 7.5% (n=45) of patients were referred to another type of care. We found that mean body mass index was 26.4kg/m², previous medication intake was seen in 53.8%, previous LBP episode in 61.2%, sudden onset of pain in 81.6%, duration of symptoms was 1.2weeks and there were 47.2% married. Pengel et al¹² described the course of acute low back pain and sciatica and to identify clinically important prognostic factors for these conditions. 15 studies of variable methodological quality were included. Rapid improvements in pain (mean reduction 58% of initial scores), disability (58%), and return to work (82% of those initially off work) occurred in one month. Further improvement was apparent until about three months. Thereafter levels for pain, disability, and return to work remained almost constant. 73% of patients had at least one recurrence within 12 months. We found that commonly used drugs was opioids in 12%, NSAIDs in 34%, corticosteroids in 14%, muscle relaxants in 8%, NSAIDs and corticosteroids in 6%, NSAIDs and opioids in 16%, opioids and corticosteroids in 7% and opioids and muscle relaxants in 3%. Roelofs et al¹³ in total, 65 trials (total number of patients = 11,237) were included. Twenty-eight trials (42%) were considered high quality. Statistically significant effects were found in favor of NSAIDs compared with placebo, but at the cost of statistically significant more side effects. There is moderate evidence that NSAIDs are not more effective than paracetamol for acute low back pain, but paracetamol had fewer side effects. There is moderate evidence that NSAIDs are not more effective than other drugs for acute low back pain. There is strong evidence that various types of NSAIDs, including COX-2 NSAIDs, are equally effective for acute low back pain. COX-2 NSAIDs had statistically significantly fewer side effects than traditional NSAIDs. Van der Gaag et al¹⁴ found that

there was extremely low- quality evidence that there is no discernible difference in the number of individuals reporting adverse events when using NSAIDs versus placebo (RR 0.86, 95% CI 0.63 to 1.18; 6 RCTs, N = 1394). There is very low- quality evidence of no clear difference in the proportion of individuals who could return to work after seven days when NSAIDs were used versus placebo (RR 1.48, 95% CI 0.98 to 2.23; 1 RCT, N = 266). There is no clear difference in short-term pain intensity decrease between those who took selective COX-2 inhibitor NSAIDs and those who did not. The limitation the study is small sample size.

Conclusion

Authors found that maximum patients had sudden onset of pain. Commonly used drugs was NSAIDs, corticosteroids and opioids.

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