A three year review of Low Back Pain treated at Physiotherapy Unit, Orotta Medical Surgical National Referral Hospital, 2004-2006.

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Abstract

A review of physiotherapy records of patients with disabling chronic low back pain treated at the physiotherapy unit of OMSNRH from 2004 to 2006 was made.
A total of 2519 patients received physiotherapy services at this unit over the specified period of time. Out of this 1397 (55.5 %) were patients suffering from chronic low back pain. Radicular pain with disc prolapse and/or herniation involving L4/L5 and L5/S1 were the leading causes of chronic low back pain accounting for 42.5% of the total, followed by lumbago due to ligament strain 37.9%. The modalities of treatment offered included physical exercises, electrotherapy, spinal traction, acupuncture and ultrasound therapy. The role of conservative therapy in chronic low back pain has been emphasized.

Introduction

Low back pain (LBP) is one of the most common presenting complaints in the outpatient clinics and a major cause of disability and missed work days. Each year 15-45% of adults suffer low back pain & 1 of 20 people present to hospital with a new episode[1].

About 60 – 90% of the population will experience back pain in their life time and of these approximately 2 to 8 % will develop chronic and disabling pain .The pain occurs most frequently in people between the ages of 20 and 40, and is non-specific in about 85% of patients although it is more severe among the elderly[2].

The origin of chronic pain is often attributed to degenerative spine conditions, yet studies indicate little correlation between clinical symptoms and radiological signs.

The immediate concern in treatment is the alleviation of pain and suffering, and the treatment plan involves modalities that include medical therapy, physical therapy or other non–surgical interventions[3].

The rationale for non operative treatment is supported by studies showing that protruded and extruded disc material can be resorbed over time & clinical improvement follows.

The bad news about chronic back pain is that there is no definite diagnosis in over 80% of cases. However the good news is over 90% improve within two months[4].

In an attempt to identify the pattern of LBP and the response to physiotherapy, a retrospective study was undertaken at Orotta Medical Surgical National Referral Hospital with an objective of emphasizing the magnitude of the problem.

Methods

The study population included all patients with LBP treated at the physiotherapy unit of OMSNRH between 2004 and 2006.

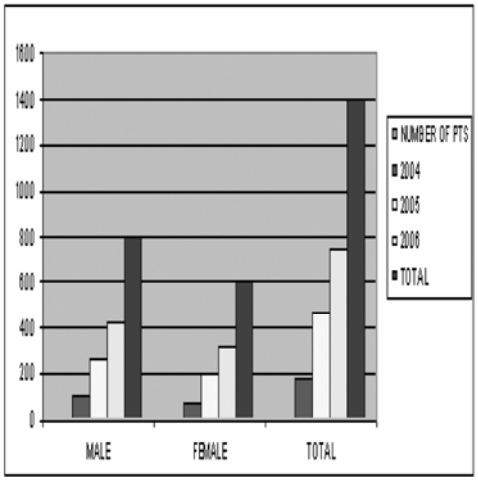
The data base for treatment protocol used in the physiotherapy unit was analyzed. Information regarding sex, age, diagnosis, modalities of treatment and outcomes of therapy was retrieved.

Treatment outcome was defined using the high and low actuality methodology as practiced in the department.

Results

A total of 1397 patients with LBP received physiotherapy services between 2004 and 2006. Out of this 798 (57%) were males (Figure 1).

Figure 1 Gender distribution of the patients with LBP from 2004-2006



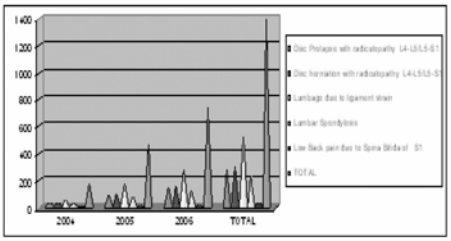
The age range was stratified from 20 to 90 years. The commonest age group affected were between 30 and 50 years (45.4%), followed by 60 and 80 years (25.3%) (Table 1).

Table 1: Age distribution of patients with LBP 2004 - 2006

AGE	2004	2005	2006	TOTAL
<20	1	5	8	14
21-30	18	42	67	127
31-30	34	89	142	265
41-50	48	125	196	369
50-60	33	86	137	256
60-70	15	40	63	118
70-80	29	76	130	235
80-90	2	5	75	82
TOTAL	180	469	748	1397

Radiculopathy involving L4/L5 and L5/S1 due to disc prolapse and/or herniation was the commonest cause of LBP in 594 (42.5%), followed by lumbago due to ligament strain in 37.9%. Spina bifida of S1 was found in only 17 patients (1.2%) (Figure 2).

Figure 2: Working diagnosis of patients with LBP 2004 - 2006



Regarding treatment outcomes of patients in this unit, nearly half of the patients 696 (49.8%) had mild to moderate improvement while 570 (40.8%) were cured or markedly improved. The rest 131 (9.4%) showed no improvement at all or discontinued therapy (Table 2)

. Table 2: Treatment outcomes of patients with LBP 2004-2006

OUTCOME	2004	2005	2006	TOTAL
CURED	14	37	59	110
MARKED IMPROVEMENT	59	154	247	460
IMPROVED	55	144	230	429
SLIGHT IMPROVEMENT	34	90	143	267
NOT IMPROVED	12	28	53	93
DISCONTINUED	6	16	16	38
TOTAL	180	469	748	1397

Discussion

Similar to other studies, males & the younger age group were predominantly affected in this study. Moreover, the study found that LBP due to L4/L5 and L5/S1 involvement was the leading cause of patients suffering from low back pain and getting physiotherapy.

LBP due to ligament strain affected a significant proportion of the group which coincides with the age distribution, in relation to traumas and physical activities.

Studies have shown the majority including those with herniated discs can be successfully managed with proper counseling, well scheduled and carefully monitored conservative means in a multidisciplinary approach. In our case 90.6% were beneficiaries of conservative treatment.

Back surgery has been over prescribed in the past, recent publications however indicated only a small minority of patients may ever require surgery such as spinal fusion or cord decompression. Clinical improvement is usual in the majority of people, and only about 10% still have sufficient pain to consider surgery [2].

Newer treatments for lumbar discogenic pain include percutaneous therapeutic intradiscal

Procedures: IDEA, PLDD, PR Annular Neurolysis and Nucleoplasty [3].

When radicular pain and neurological deficit are discovered, diligence is required to find the cause, requiring a through history and complete physical examination to minimize the morbidity of cord compression.

90% of LBP spontaneously resolve within 8 weeks, another 5% resolve with in 12 weeks. Only 5% persist and become chronic [5]. An appropriate workup and non operative management for up to 12 weeks determines the need for surgery.

This study emphasizes the magnitude of LBP in the society and the role of physical therapy in resolution of the problem. It also suggests the need of prospective studies to analyze the clinical presentation and specific treatment outcomes, to evaluate the prognosis of LBP.

In conclusion, this study has documented that the major causes of LBP including those of local pain caused by irritation to back structures can be conservatively managed by Pain medications and Physical therapy.

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