

LBA As An Increasing Health Problem In India

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Abstract

Low back pain is an extremely common health problem throughout the world. It is one of the common causes of activity limitation and work absenteeism and hence cause of great economic burden on the country. Low back ache has multifactorial etiology. This observational study was conducted from June 2013 to June 2014, to know about the clinical trends of low backache in patients requiring admission and its distribution with respect to age, sex and occupation. 180 patients were enrolled in this study at department of orthopaedics G.M.C Jammu. In this study low back ache was more common in third and fourth decade, more in males but with female preponderance in the geriatric age group. Low back ache was more common in non sedentary occupation group. Duration of low back ache was mostly two months to two years. Many etiologies were observed as a cause of low back ache like lumbar spondylosis, prolapsed intervertebral disc, senile osteoporosis, spinal canal stenosis, compression fracture, spondylolisthesis, tuberculosis, lumbar strain etc

Key Words

Low Back Ache, Prevalence, Health Problem, Silent Epidemic

Introduction

Low back ache is neither a disease nor a diagnostic entity of any sort, it is just a constellation of symptoms. Low back ache is an important clinical, social, economic and public health problem affecting the general population indiscriminately. It is a disorder with many possible etiologies, occurring in various occupational groups of the population. Therefore the vast literature available on low back ache is not only heterogeneous but also contradictory. In accordance with the report of World Health Organization in 2002, low back ache constituted about 37% of all occupational risk factors which occupies first rank among the disease complications caused by work. Such high prevalence of complications at international levels has made the World Health Organization to name the first decade of the third millennium as the "decade of campaign against musculoskeletal disorders (as the silent epidemic)" (WHO, 2005). (1) The prevalence of low back ache in Indian population has been found to vary between 6.2% (in general population) to 92% (in construction workers). (1) The prevalence of low back ache has been found to

increase with age and more common among females in the geriatric age group. Low socioeconomic status, poor education, various physical factors such as lifting heavy weights, repetitive job, prolonged static posture and awkward posture, psychosocial factors such as anxiety, depression, job dissatisfaction, lack of job control, mental stress, prolonged working hours and obesity have been found to be associated with low back ache.

Material and Methods

This was an observational study done on 180 patients including both male and female patients above the age of 18 years who had severe low back pain and admitted in department of Orthopaedics G.M.C Jammu over a period of one year from June 2013 to June 2014. History and physical examination of all patients were done after taking a verbal informed consent. History included name, age, sex, occupation, residence whether rural or urban, duration of low back ache, sciatica and neurological deficit if any. All details regarding pain - mode of onset, duration, character, severity, progression, radiation, aggravating and relieving factors were noted. General, systemic and local

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Fig.1 Age Wise Distribution of LBA Patients

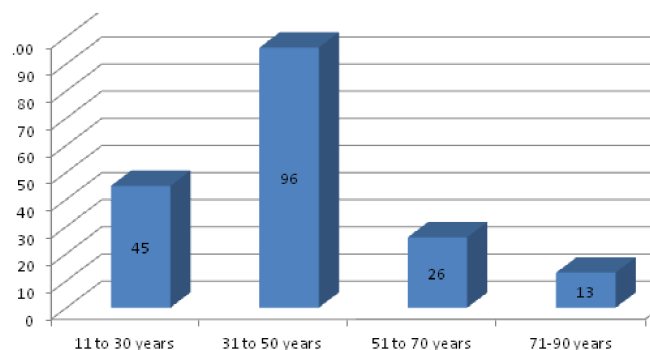


Fig.2 Gender Wise Distribution of LBA Patients

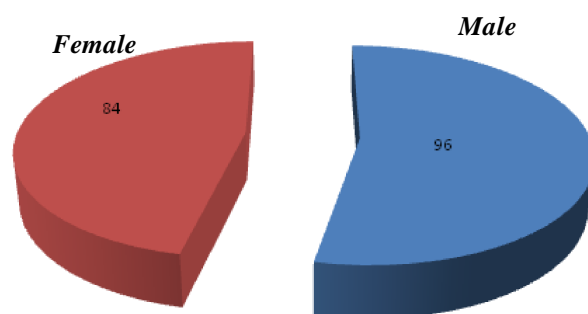


Fig.3 BMI of LBA Patients

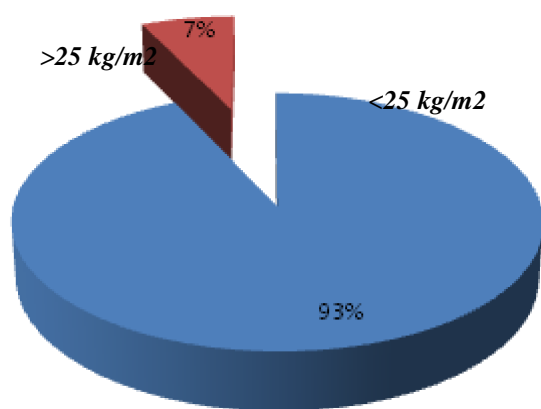


Fig.4 Distribution of LBA Patients as per life style

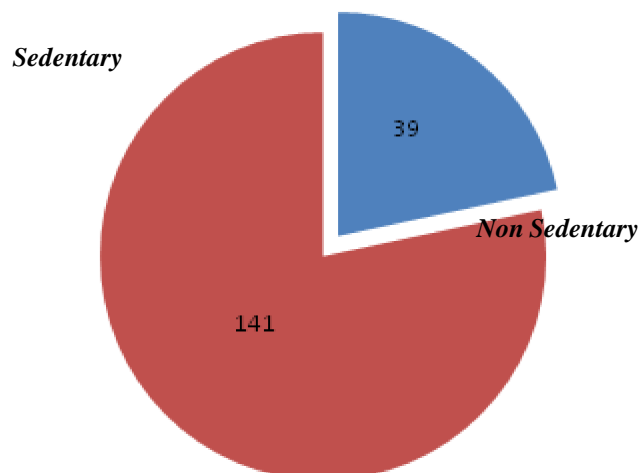


Fig.5 Occupation of Sedentary LBA Patients

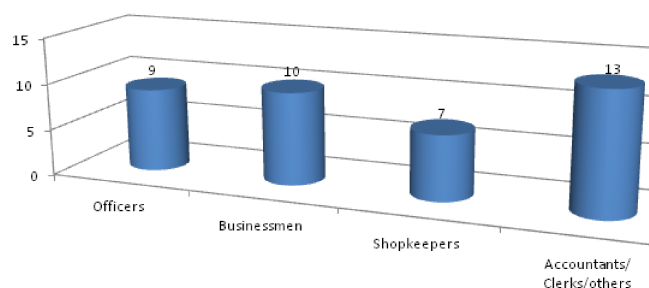


Fig.6 Occupation of Non Sedentary LBA Patients

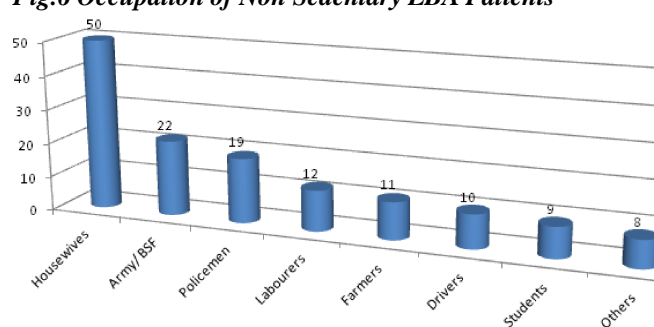
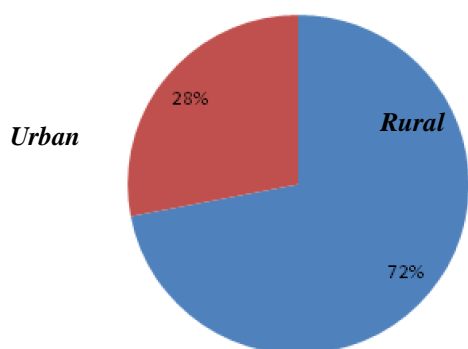


Fig.7 Urban Vs Rural Distribution of LBA Patients



examination was done. Local examination included tenderness of spine, kyphosis / scoliosis, lumbar lordosis, any swelling / spasm, gait of the patient, spine movements, tests for the lumbar root tension like straight leg raising test (SLR) etc, sacroiliac straining whether painful or not with pump handle test and Gaenslen's test.

Results

The following results were found in this study on 180 patients with low back ache at department of orthopaedics G.M.C. Jammu between June 2013 to June 2014. Low back ache was the most common health

Fig.8 Distribution of LBA Patients as per Duration of Pain

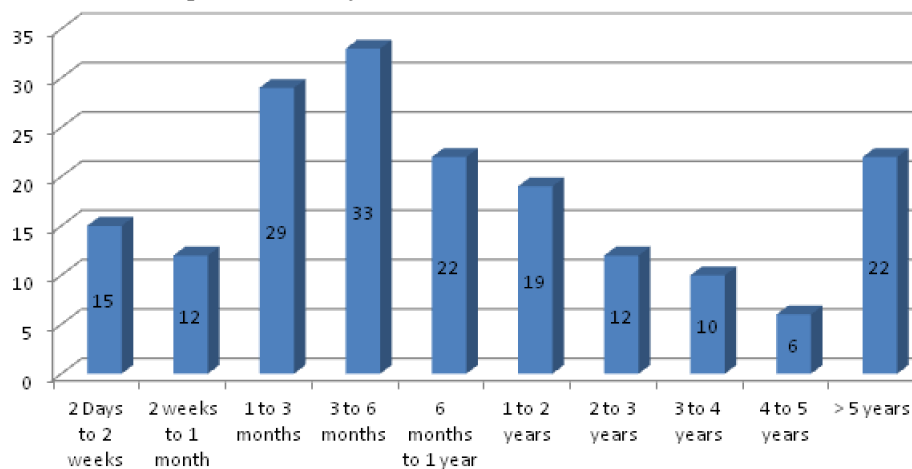
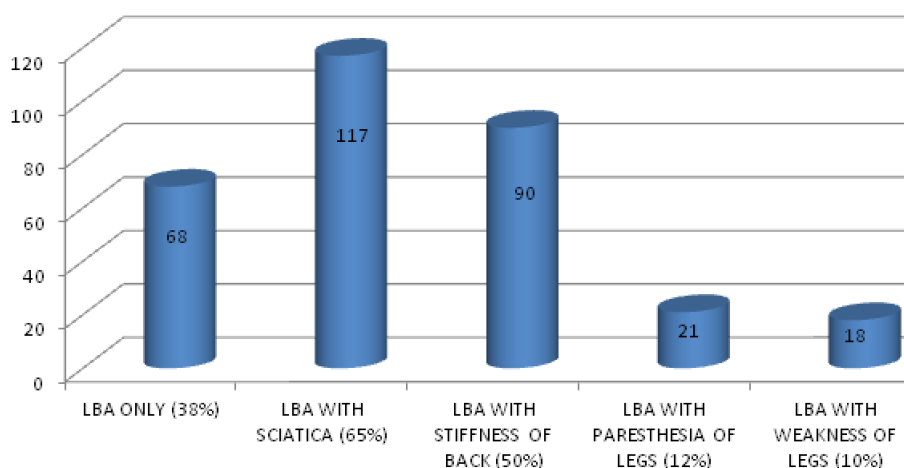


Fig.9 Distribution of LBA Patients as per mode of Presentation



problem seen in both genders between third to fifth decade (53.3%). Overall cases of males getting affected by low back ache was more than females but after 50 years of age females (23.8%) were more affected by low back ache than males (19.8%). Low back ache was more in patients of rural area (72%) than urban area. Incidence of low back ache was more in patients of non sedentary occupation (78.3%). In majority of patients duration of pain was from one month to two years (57.2%). Commonest presentation was low back ache associated with sciatica (65%) followed by stiffness of back (50%). Causes of low back ache were mostly mechanical back ache i.e, lumbar spondylosis (26%), disc prolapse (23%), senile osteoporosis (10%), compression fracture (6%), spinal canal stenosis (5%), spondylolithesis (5%) etc.

Discussion

The prevalence of low back ache in our country has been found to vary from 6.2% (in general population) to

92% (in construction workers). Such large variation can be attributed to the heterogeneity of patients in different occupational groups. (1) The prevalence of low back ache has been found to increase with age and to be more common among females. Low socioeconomic status and poor education have been found to be associated with low back ache. Heavy physical work in terms of lifting heavy loads, repetitive job, prolonged static posture and awkward posture have been found to be some of the risk factors of low back ache. Anxiety, depression, job dissatisfaction, lack of job control and mental stress have been found to be some of the psychosocial factors related to low back ache. The length of occupational exposure in terms of prolonged working hours and number of years in the occupation have been found to be associated with low back ache. Out of lifestyle factors obesity can be a factor associated with low back ache. At the same time, impact of low back ache in terms of change/loss of job and activity limitation cannot be ignored. Regarding

Fig.10 Clinical Sign in LBA Patients

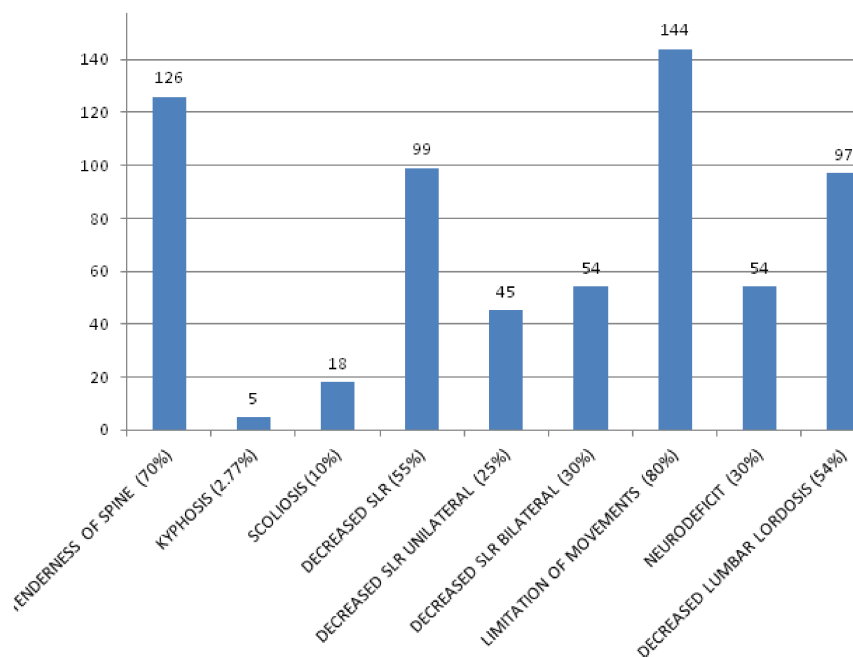
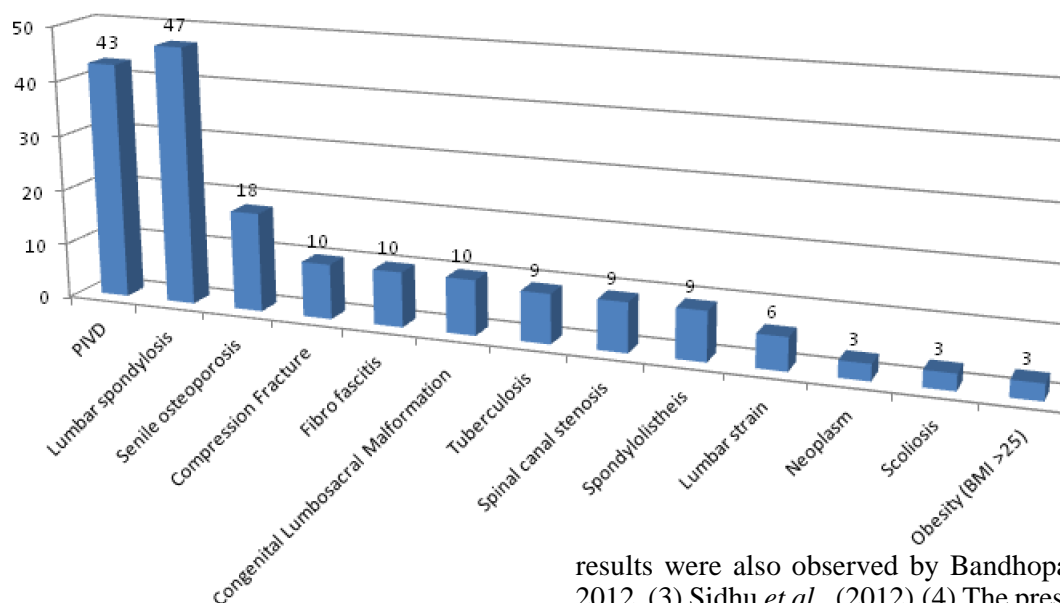


Fig.9 Distribution of LBA Patients as per Etiology



utilization of health services for low back ache, it has been observed that a large number of patients took no consultation, followed by over the counter medication and a majority preferred traditional treatment over the allopathic system of medicine.

Koley *et al.*, (2008) (2) found a gradual increase of pain score with the increase of age in both the sexes, the increment of pain score was more in females. Similar

results were also observed by Bandhopadhyay *et al.*, 2012, (3) Sidhu *et al.*, (2012).(4) The present study also observed that low back ache is a common health problem and that it was mostly seen in between third to fifth decade accounting for 96 cases (53.3%).

Mohapatra *et al.*, (2011) (5) found low back ache to be more common among females than males in geriatric patients attending a railway hospital in Uttar Pradesh; among females (17%) than ($p < 0.001$) males (11.1%) in residents of national capital region (Bihari *et al.*, 2011)

(6); among females (34.21%) in Pimpri, Pune (Banerjee *et al.*, 2012) (7). The present study observed though males (53.3%) were overall more affected than females but after 50 years of age females (23.8%) outnumbered males (19.7%).

Sidhu *et al.*, (2012)(4) found that 68% of the sufferers with low back ache belonged to low socioeconomic status. The present study observed that most patients of low back pain belonged to rural area (72%).

Joshi *et al.*, (2001) (8) observed that lumbar pain was more common in operators working on presses, those using hand and power tools and those lifting heavy manual loads. Sharma *et al.*, (2003) (9) observed that 57% subjects with low back ache were in blue collar jobs (heavy manual labourers). Significant interrelationship was found ($p < 0.001$) between professional categories and low back ache in workers of Saharanpur with wood carving (25%), textile industry (30%), and manual labourer (22%). 45% perceived heavy work, followed by prolonged sitting or standing (24%) to be a cause of their low back ache (Sidhu *et al.*, 2012) (4). Awkward posture followed by force exertion was found to be significantly associated with low back ache in construction workers of Karimnagar, Andhra Pradesh (Bodhare *et al.*, 2011) (10). Awkward posture was found to be associated with high prevalence of low back ache ($p < 0.01$) in oil drilling workers. However exposure to vibration and lifting of weights was not found to be associated with low back ache which can be partly attributed to the small sample size (71 workers) of the study (Tiwari and Saha, 2012) (11). The present study also observed that low back ache was more common in patients with non sedentary occupations (78.33%) including labourers, farmers, paramilitary personnel etc. BMI of $>25 \text{ kg/m}^2$ was found to be associated with low back ache in truck drivers of Nagpur city (Amod *et al.*, 2012). (12) On the other hand, Bihari *et al.*, (2011) (6) and Bodhare *et al.*, (2011) (10) did not find any association of low back ache and BMI. The present study observed that 7% of patients with low back pain were obese with BMI $>25 \text{ kg/m}^2$.

Conclusion

Low back ache has an enormous impact on individuals, families, communities, governments and businesses throughout the world. Low back ache is an increasing health problem in developing countries such as India and hence determining the various etiological factors responsible for low back ache in general population as well as in different occupational groups through well designed epidemiological studies is the need of the hour to prevent and cater to this "silent epidemic" which is one of the major causes of disability, high expenditure,

sickness absenteeism and psychosocial co morbidity in our country. An ergonomic approach should be applied to prevent the high prevalence of low back ache in active manpower of our country .

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