

EPIDEMIOLOGY OF PATIENTS WITH LUMBAGO

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Abstract: Low back pain (LBP) is the most common musculoskeletal condition affecting the adult population, with a prevalence of up to 84%¹. Chronic LBP (CLBP) is a chronic pain syndrome in the lower back region, lasting for at least 12 weeks². Many authors suggest defining chronic pain as pain that lasts beyond the expected period of healing, avoiding this close time criterion. This definition is very important, as it underlines the concept that CLBP has well-defined underlying pathological causes and that it is a disease, not a symptom. CLBP represents the leading cause of disability worldwide and is a major welfare and economic problem¹. Given this complexity, the diagnostic evaluation of patients with LBP can be very challenging and requires complex clinical decision-making. Answering the question, “what is the pain generator?” among the several structures potentially involved in CLBP is a key factor in the management of these patients, since a diagnosis not based on specific pain generator can lead to therapeutic mistakes.

Keywords: Low back pain epidemiology, etiology, diagnosis, treatment.

INTRODUCTION

Low back pain is one of the most common health problems among all the population of the world. Most people experience low back pain at some point of their lives [1]. Although most of the people recover from the pain quickly, the disability which is the result of such pain most often leads to a limited range of activity among the adults, which is only next to arthritis [2].

The prevalence of low back pain has been reported among many people especially when resulting from work related and occupational activities [3]. 75-84% of the general population suffer from low back pain and among them, it is estimated that 5-10% of the people experience LBP resulting in severe morbidity, increased health care costs, sick leaves and individual suffering [4]. It is also one of the common reasons for a person to seek medical help [5].

Men and women are equally reported to be affected by this condition. 50% of adults and 30% of adolescents are said to be affected at least once [6]. Of late, there has been rising incidence of LBP among many young adults and children, which is of concern.¹² Sports and physical activity is one of the main factors causing LBP [7]. It was also reported that children below

14 year of age who experienced LBP, got it in more severity before 25 years.14 Other risk factors which contribute towards a LBP is obesity and a positive family history apart from depression, stress and anxiety [8].

There have been a few studies regarding LBP but very few in this part of the world. This study was hence conducted to assess the prevalence of lower back pain among the young adults in our geographical area.

MATERIAL AND METHODS

This is a prospective study. A total of 274 patients with lumbago were followed up at University Hospital Centre in Tirana, Albania during the years 2010-2015. The records of patients whose chief complaint was first time LBP were reviewed in detail, including their medical histories, examinations, imaging, and consultations with other specialists. Socio-demographic data, such as age and gender, body mass index (BMI), civil status, education level and occupation were reviewed.

RESULTS AND DISCUSSION

The study involved 247 patients of whom 95 (38.5%) are female and 152 (61.5%) are male ($p < 0.01$). The mean age of patients was 41.2 (13.1) years ranging from 18 years to 76 years. Regarding the age distribution predominates the age group 51-60 years with 31.6% of the total patients, with significant difference with other age groups ($p < 0.01$).

In the distribution of patients according to BMI 24.7% of them are of normal weight, 31.6% are overweight and 43.7% of them are obese which are classified: Obese I 20.2%, Obese II 17.4% and Obese III 6.1%, ($p < 0.01$).

No significant correlation of BMI with age was found ($r = 0.15$ $p = 0.5$). Table 1 shows the sociodemographic characteristics of patients.

Table 1. Sociodemographic characteristics of patients

Variables	N	%	P
Gender			
Female	95	38.5	
Male	152	61.5	
Age M (SD)	41.2 (13.1)	18-76	
Agegroup			
<20	7	2.8	<0.01
21-30	12	4.9	
31-40	28	11.3	
41-50	53	21.5	
51-60	78	31.6	
61-70	51	20.6	

>70	18	7.3	
BMI			
Normal	61	24.7	<0.01
Overweight	78	31.6	
Obese I	50	20.2	
Obese II	43	17.4	
Obese III	15	6.1	
Civil status			<0.01
Single	22	8.9	
Married	208	84.2	
Divorced	11	4.5	
Widow	6	2.4	
Education level			<0.01
Elementary	14	5.7	
High school	151	61.1	
University	82	33.2	<0.01
Profession			
Worker	106	42.9	
Farmer	42	17.0	
Housewife	23	9.3	
Office	76	30.8	

Regarding the sociodemographic characteristics predominate married patients (84.2%) ($p < 0.01$), high school education (61.1%) followed by university education (33.2%) ($p < 0.01$). Regarding the profession predominate workers, followed by the office employees who work in sitting position (30.8%) ($p < 0.01$).

Acute pain predominates in (76.1%) of patients followed by subacute pain (16.2%) and chronic pain (8.1%) ($p < 0.01$). The duration of pain was < 1 week in 78% of patients, 1-4 weeks in 13% and > 4 weeks in 9% of them ($p < 0.01$). Severe pain predominates in 63% of patients followed by moderate pain (23%) and mild pain (14%) ($p < 0.01$). Low back pain is one of the common health problems that 50–80% of adults experience at some point in their life [8]. It is believed that adults of working age are the most vulnerable group of LBP, which is ranked as the highest cause of disability than any other condition globally [9]. The overall burden of LBP arising from ergonomic exposures at work was estimated at 21.8 million [95% Confidence Interval (CI) 14.5–30.5] disability adjusted life years (DALYs) in 2010 [10]. Of this, 8.3 M DALYs were in females and the remaining 13.5 million were in males. Despite several peer-reviewed published studies on the prevalence or incidence of LBP, there is little consensus regarding its epidemiology and its risk factors [11]. For example, Hoy et al. [12]

reported a point prevalence estimate of LBP that ranged from 1.0 to 58.0%. A review of 56 studies from Walker has also indicated that the point prevalence of LBP was between 12.0 and 33.0% [13]. Moreover, 1-year and lifetime prevalence of LBP that ranged between 0.8% and 82.5% and 11.0–84.0%, respectively, was reported from studies carried out worldwide including low-income countries [14]. The prevalence of LBP in high-income countries was estimated at 30.0%, which is higher than low-income countries, 18.0% [15]. The 1-year incidence of people who have any episode and first ever episode of LBP ranged from 1.5 to 36.0%, and 6.3–15.4%, respectively [16]. Further, it has been suggested that the prevalence or incidence of LBP is increasing with age [17]. A nationwide study in Finland reported that the prevalence of LBP for 7-year-olds, 10-year-olds and 14- to 16-year-olds was 1.0%, 6.0%, and 18.0%, respectively [18]. With regard to the potential risk factors of LBP, many personal and environmental factors have been identified [19]. Personal factors such as metabolism, biochemistry, physical factors (a long back), and depressive tendencies were identified as a risk factors of LBP [20], whereas job satisfaction, working with heavy weights, lengthy period of standing, forward bending, and carrying school backpacks were identified as environmental risk factors of LBP [21]. A recent study on gender–age environmental associates of adolescent LBP have also found that girls were likely to report LBP than boys [22].

CONCLUSION

Low back pain is one of the most common reasons that patients seek care from a primary care physician. In most cases, it has a benign etiology. However, a thorough history should be obtained and physical examination performed in patients with low back pain, because they can elicit warning signs that indicate the need for further work-up. Serious causes of low back pain, such as malignancy and infection, should not be missed.

REFERENCES

- [1] Murray CJ, Atkinson C, Bhalla K, et al; US Burden of Disease Collaborators. The state of US health, 1990-2010: burden of diseases, injuries, and risk factors. *JAMA*. 2013;310(6):591-608.
- [2] Henschke N, Kamper SJ, Maher CG. The epidemiology and economic consequences of pain. *Mayo Clin Proc*. 2015; 90(1): 139-147.
- [3] Fillingim RB, Bruehl S, Dworkin RH, et al. The ACTION American Pain Society Pain Taxonomy (AAPT): an evidence-based and multidimensional approach to classifying chronic pain conditions. *J Pain*. 2014;15(3):241-249.

- [4] Geurts JW. Classification and management of low back pain: Is this the right direction? *Eur J Pain*. 2015;19(3):293-294.
- [5] Henriques AA, Dussán-Sarria JA, Botelho LM, Caumo W. Multidimensional approach to classifying chronic pain conditionsless is more. *J Pain*. 2014;15(11):1199-1200.
- [6] DePalma MJ, Ketchum JM, Saullo T. What is the source of chronic low back pain and does age play a role? *Pain Med*. 2011;12(2):224-233.
- [7] DePalma MJ, Ketchum JM, Saullo TR. Multivariable analyses of the relationships between age, gender, and body mass index and the source of chronic low back pain. *Pain Med*. 2012; 13(4):498-506.
- [8] Cohen SP. Epidemiology, diagnosis, and treatment of neck pain. *Mayo Clin Proc*. 2015;90(2):284-299.
- [9] Hoy D, Brooks P, Blyth F, Buchbinder R. The epidemiology of low back pain. *Best Pract Res Clin Rheumatol*. 2010;24(6): 769-781.
- [10] Hoy D, Bain C, Williams G, et al. A systematic review of the global prevalence of low back pain. *Arthritis Rheum*. 2012; 64(6):2028-2037.
- [11] Taylor JB, Goode AP, George SZ, Cook CE. Incidence and risk factors for first-time incident low back pain: a systematic review and meta-analysis. *Spine J*. 2014;14(10):2299-2319.
- [12] Hoy D, Brooks P, Blyth F, Buchbinder R (2010) The epidemiology of low back pain. *Best Pract Res Clin Rheumatol* 24(6):769–781
- [13] Walker BF (2000) The prevalence of low back pain: a systematic review of the literature from 1966 to 1998. *Clin Spine Surg* 13(3):205–217
- [14] Freynhagen R, Baron R, Gockel U, Tölle TR. Pain DETECT: a new screening questionnaire to identify neuropathic components in patients with back pain. *Curr Med Res Opin*. 2006; 22(10):1911-1920.
- [15] Aleksiev AR. Ten-year follow-up of strengthening versus flexibility exercises with or without abdominal bracing in recurrent low back pain. *Spine* 2014;39:997-1003.
- [16] American Physical Therapy Association. Description of Dry Needling in Clinical Practice: An Educational Resource Paper 2013.
- [17] Ash LM, Modic MT, Obuchowski NA, et al. Effects of diagnostic information, per se, on patient outcomes in acute radiculopathy and low back pain. *AJNR Am J Neuroradiol* 2008; 29: 1098-103.

- [18] Choi BK, Verbeek JH, Tam WW, Jiang JY. Exercises for prevention of recurrences of low back pain. *Cochrane Database Syst Rev* 2010;(1):CD006555.
- [19] Chou R, Fu R, Carrino JA, Deyo RA. Imaging strategies for low-back pain: systematic review and meta-analysis. *Lancet* 2009;373(9662):463-72.
- [20] Chou R, Qaseem A, Owens DK, Shekelle P, Clinical Guidelines Committee of the American College of Physicians. *Ann Intern Med* 2011;154(3):181-9.
- [21] Dahm KT, Brurberg KG, Jamtvedt G, Hagen KB. Advice to rest in bed versus advice to stay active for acute low back pain and sciatica. *Cochrane Database Syst Rev* 2010;(6):CD007612.
- [22] Downie A, Williams CM, Henschke N, et al. Red flags to screen for malignancy and fracture in patients with low back pain: systematic review. *BMJ* 2013;347: f7095.