

Quality of Life of Patients with common Chronic Low Back pain, in a Population of African Black Patients

W Joelle Zabsonre Tiendrebeogo¹, D Sylvain Zabsonre², Fulgence Kabore¹, Bénilde Kambou Tientore³, Yves Hema¹, Anselme Dabilgou⁴, Abel Kabre² and Dieu-Donné Ouedraogo^{1*}

¹Department of Rheumatology, Yalgado Ouédraogo Teaching Hospital, Ouagadougou, Burkina Faso

²Department of Neurosurgery, Yalgado Ouédraogo Teaching Hospital, Ouagadougou, Burkina Faso

³Department of Radiology, Yalgado Ouédraogo Teaching Hospital, Ouagadougou, Burkina Faso

⁴Department of Neurology, Yalgado Ouédraogo Teaching Hospital, Ouagadougou, Burkina Faso.

Received September 19, 2019; Accepted October 01, 2019; Published January 08, 2020

INTRODUCTION

Common Chronic Low Back Pain (CCLBP) is a public health concern that has considerable socioeconomic impact in developed countries and that is becoming increasingly frequent in developing countries [1-3]. The chronic pattern of the condition leads to a very significant psychosocial impact [3]. Quality of life is a multidimensional concept developed in the 1970's, for the follow up of chronic illnesses. The definition of this concept is still not consensual [4-7]. Depending on the type of illness, several tools have been developed for its assessment. Quebec Back Pain Disability Scale (QBPDS) and Dallas Pain Questionnaire (DPQ) are the most suitable up-to-date tools, for the functional evaluation of CCLBP [6-8]. In sub Saharan Africa, quality of life of patients with CCLBP has been subject of few studies these last year's [9,10]. The aim of our study was to assess quality of life of patients with CCLBP in Yalgado Ouédraogo Teaching Hospital.

METHODS

It was a cross-sectional study from January to June 2013 in the services of Rheumatology, Neurology and neurosurgery of Yalgado Ouédraogo Teaching Hospital. Were included all patients over 18 years of Age, having a Common chronic low back pain diagnosis based on the anamnestic, clinical and radiological elements. All patients benefited from the realization of a hemogram, a sedimentation rate and a C reactive protein to exclude all secondary lumbalgia as infection, tumor or inflammatory rheumatism. All patients benefited from an x-ray and or a lumbar spine scanner. A written nameless questionnaire including the self-administered DPQ [6] and the QBPDS [11], were used for data collection. To avoid confusions, additional interview was conducted by the same operator, who had to explain misunderstood items to the patients, and assess clinical evolution based on Visual Analog Scale (VAS). All patients gave informed consent. Confidentiality of data and ethical

rules were respected throughout the study. Data were entered and analysed with the Epi Info 3.5.1 software. ANOVA test was used for statistical comparisons, and a difference was considered significant when $P < 0.05$.

RESULTS

Ninety-five patients were enrolled. We had 67 females and 28 males, with a sex-ratio of 0.41. Average age was 47.7 years \pm 14.1 years with extremes of 18 years and 82 years. Average severity of low back pain on first visit, was 6.6/10 based on VAS.

Assessment of low back pain impact on quality of life, through the self-administered DPQ, reported average impairment of 34.6% distributed as follow: 46.1% for daily activities with extremes of 3% and 84%; 38.6% for professional activities and entertainment with extremes of 0% and 95%; then 23.5% for sociability with extremes of 0% and 80%. The QBPDS reported an average impairment of 37.9% with extremes of 6% and 84%.

Patients with at least 50% impairment of quality of life, based on both DPQ and QBPDS, were analysed. Data analysed were age, gender, sport practice, pain severity and marital status. Distribution of patients assessed by quality of life evaluation tools and depending on data collected is presented in **Table 1**.

Corresponding author Ouédraogo Dieu-Donné, Department of Rheumatology, Yalgado Ouédraogo Teaching Hospital, Ouagadougou, Burkina Faso, Tel: (226) 70324406; E-mail: ouedd@yahoo.fr

Citation: Tiendrebeogo YJZ, Zabsonre DS, Kabore F, Tientore BK, Hema Y, et al. (2020) Quality of Life of Patients with common Chronic Low Back pain, in a Population of African Black Patients. *J Rheumatol Res*, 2(1): 81-83.

Copyright: ©2020 Tiendrebeogo YJZ, Zabsonre DS, Kabore F, Tientore BK, Hema Y, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Table 1. Distribution of patients with at least 50% quality of life impairment, depending on the study variables.

	Age		Gender		Sport		Vas		Marital status			
	<50 years	≥ 50 years	F	M	Yes	No	<6	≥ 6	S	D	M	W
Daily activities	18	22	30	10	8	32	4	36	7	1	30	2
	(p=0.6861)		(p=0.1180)		(p=0.0497)		(p=0.0000)		(p=0.2471)			
Professional activities and entertainment	16	21	26	11	6	31	3	34	5	1	28	3
	(p=0.6861)		(p=0.9483)		(p=0.1154)		(p=0.0001)		(p=0.7681)			
Anxiety and depression	10	7	13	4	1	16	2	15	3	1	12	1
	(p=0.2401)		(p=0.4351)		(p=0.0159)		(p=0.0436)		(p=0.1087)			
Sociability	5	4	4	5	2	7	0	9	3	0	6	0
	(p=0.9142)		(p=0.3971)		(p=0.8105)		(p=0.0244)		(p=0.2659)			
QBPDS	9	16	18	7	4	21	2	23	5	0	19	1
	(p=0.3735)		(p=0.0497)		(p=0.0210)		(p=0.0041)		(p=0.7998)			

F: Female; M: Male; QBPDS: Quebec Back Pain Disability Scale; VAS: Visual Analog Scale; S: Single; D: Divorcee; M: Married; W: Widow(er)

DISCUSSION

Quality of life of patients with CCLBP in Ouagadougou is impaired, regardless of the quality of life evaluation scale that is used (self-administered DPQ and QBPDS). This is the first study in our context on the quality of life of patients followed in rheumatology in general and on low back pain in particular. Average age of our patients was 47.7 years. Except Fianyoy in Togo [9], who reported an average age of 38 years, our result is similar to those of Africans and Caucasian series [9,10,12], with average ages between 47.8 years and 51 years. Age over 45 years is a factor of chronicity of low back pain, and thus, of quality of life impairment. In the industrial sector in France, chronic low back pains are the leading cause of disability among workers under 45 years [3,13]. Female predominance was noticed, with a sex-ratio of 0.41. This female predominance in our study could be related to the fact that women perform domestic work and also because of the physiological hyperlordosis of the African woman. Based on VAS, the

average severity of low back pain on first visit was 6.6/10 with extremes of 2/10 to 10/10. Fianyoy [9] in Togo and Wilhelm [13] in France reported average VAS of 5/10 with extremes of 2/10 to 9/10 and 3.4/10 with extremes of 1.9/10 to 4.9/10, respectively. This great difference could result from the fact that many of our patients had difficulties with the VAS and possibly used to overrate pain severity. Assessment of quality of life based on the DPQ in our study, noticed an average impairment higher than that of Fianyoy in Togo (about 20.2%); but lower than that of French series [11,13]. **Table 2** compares our results to those of other African and French studies. These results show that quality of life is more impaired in French with low back pain, than in African. The bias due to linguistic challenges during administration of the questionnaire, could lead to underestimation of their lesion by some patients. Otherwise, one might assert that patients with CCLBP in Ouagadougou (Burkina Faso) have higher capacity of acceptance and adaptation, than French counterparts.

Table 2. Summary of our results, compared to that of other studies.

	Our study	Fianyoy (Togo)	Yvanes-Thomas (France)	Wilhelma (France)
DPQ total (%)	34.6	20.2	58.5 (234/400)	58.6
Daily activities (%)	46.1	31.3	66	NA
Work and entertainment (%)	38.6	17.9	75	NA
Anxiety and depression (%)	30.3	19.1	50	NA
Sociability (%)	23.5	12.5	50	NA
QBPDS total (%)	37.9	NA	46	38.4

DPQ: Self-Administered Dallas Pain Questionnaire; QBPDS: Quebec Back Pain Disability Scale; NA: Not Available

Diomandé and Kakpovi respectively in Ivory Cost and Togo, reported a prevalence of anxiety and depressive disorders of 30.7% and 39% in CCLBP [10,14]. This low prevalence of anxiety and depressive disorders in West Africa could be related to under diagnostic. Indeed, cultural fatality attributed to psychiatric illnesses, disturbs number of patients who deny their anxiety and depressive condition. Our study shows a statistically significant association between considerable impairment of quality of life (over 50%), and some of the socio-demographic and clinical variables. VAS of at least 6/10 was associated with impaired quality of life, based on both DPQ and QBPDS. Lack of sports activity is associated with deterioration of the following specific scores: “daily activities” (p=0.04); “anxiety and depression” (p=0.01). Several studies emphasize the importance of sport in both preventive and curative management of CCLBP [6,15-18]. Other studies about sport and low back pain should be undertaken with a larger population in order to understand the difference with other series. In our medical environment, age, gender and marital status are not significantly associated with a great impairment of quality of life of patients with low back pain.

Our study has some limitations, inherent to the low level of education of some patients. For some of our patients not speaking French, it was necessary to translate and explain the questionnaire in dialects that were not always fluent for the interpreter.

CONCLUSION

In Burkina Faso, CCLBP causes significant impairment of quality of life of patients in hospital environment. Severity of pain and lack of sport contribute to further deteriorate quality of life. Difficulties to adapt quality of life questionnaires to local languages hinder the understanding by some patients and therefore reduce the reliability of data collected. Further studies based on contextualized questionnaires, could lead to better conclusions.

CONFLICT OF INTEREST

None

REFERENCES

- Mijiyawa M, Oniankitan O, Kolani B, Koriko T (2000) Low back pain in hospital consultation in Lomé (Togo). *Rev Rhum* 67: 914-920.
- Ntsiba H, Makosso E (2009) Common low back pain. About 200 cases observed in the Rheumatology Department of the Brazzaville University Hospital. *Med Afr Noire* 5604: 226-230.
- Duquesnoy B, Allaert FA, Verdoncq B (1998) Psycho-social and professional impact of chronic low back pain. *Rev Rhum* 1: 37-45.
- Grenier B (1995) Measure the immeasurable? Measuring the quality of life. *Rev Med Int* 16: 311-313.
- Auquier P, Simeoni MC, Robitail S (2006) Measuring the quality of life: Fashion effect or true judgment criterion? *Rev Neurol* 162: 508-514.
- Calmels P, Béthoux F, Condemine A, Fayolle-Minon I (2005) Tools for measuring functional parameters in low back pain (literature analysis). *Ann Rehabil Phys Med* 48: 288-297.
- Brousse C, Boisaubert B (2007) Quality of life and its measures (focus). *Rev Med Int* 28: 458-462.
- Amarenco G, Bayle B, Lagauche D, Lapeyre E, Sheikh Ismael S, et al. (2000) Construction and validation of quality of life scales. *Ann Rehabil Méd Phys* 43: 263-269.
- Fianyo E, Oniankitan O, Kalpovi K, Tagbor K, Houzou P, et al. (2009) The quality of life of chronic low back pain in rheumatologic consultation in Lomé. *French Soc Rheumatol*.
- Diomande M, Ouattara B, Gbane-Kone M, Eti E, Djoko Kouadio CF, et al. (2012) Anxio-depressive disorders in chronic low back pain in rheumatologic environment in Abidjan. *Tunis J Rheumatol* 11: 36-40.
- Yvanes-Thomas M, Calmels P, Béthoux F, Richard A, Naym P, et al. (2002) Validity of the use of the French version of the Quebec scale for chronic low back pain in French culture. *Rev Rhum* 69: 737-46.
- Muzembo Ndundu J, Makekita Kiadakulu S (2012) Functional evaluation of a population of low back pain in Kinshasa by the EIFEL scale. *J Med Rehabil* 2012: 1-5.
- Wilhelm F, Fayolle-Minon I, Phaner V, Le-Quang B, Rimaud D, et al. (2010) Sensitivity to change of the Quebec Back Pain Disability Scale and the Dallas Pain Questionnaire. *Ann Phys Rehabil Med* 53: 15-23.
- Kakpovi K, Soedje KMA, Koffi-Tessio VES, Ahoble KE, Fianyo E, et al. (2017) Anxiety and depression disorders in chronic non-specific low back pain in Lomé (Togo). *OJRA* 1: 1-15
- Calmels P (1998) Chronic pain, physical activity and quality of life. *Scie Sports* 13: 10-16.
- Llorca G (2004) Current treatment of chronic low back pain. *Ther Med* 2: 75-81.
- Nayme P, Dazord A, Payre D, Joux-Ruesch A, Richard A, et al. (2001) Quality of life of low back pain patients followed in a pain center. *Med Press* 35: 1727-1732.
- Henchoz YSO, Alexander KL (2008) Exercise and common low back pain: A review of the literature. *Rev Rheum* 9: 790-799.