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Sick Leaves during the Low Back Pain and Influence of Obesity on its Prolonging

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A B S T R A C T

Lumbar syndrome (LS) is common problem from which the patients remain bedridden, unable, therefore working productivity is lost. Stiffness (blockage) in the lumbar-sacral part of the spinal cord limits locomotors movement, flexion, extensions and other normal daily activities. Purpose of this work is to determine the duration of the sick leaves during one year period at patients with low back pain comparing with obesity. The research was carried out in the Physiatrist Service of the Institute of Occupational Medicine (IOM) during the one year period. The total number of patients included in the research was 101, who were adult employed in the Energy Corporation of Kosovo (ECK). The subjective and objective data were collected from the medical record and the duration of the sick leaves was registered. Only 11 or 10.9% of the diseased, during the period of research, didn't use their sick leaves because of the low back pain. While the greater number of them 30 or 29.7% have used one or two weeks sick leave. By the distribution of the cases according to the groups we have got similar structure, and it can be seen from the t-test, where we didn't get important statistical significance between the groups comparing to the duration of sick leaves per week (t=0.602; p>0.05). While the average number of the sick leaves of the diseased from non-obese group was 3.94 per week (SD±3.74 week), rank 0-19 week, while the result in obese group was 4.42 week (SD±3.58 week), rank 0-13 week. Sick leaves are longer at physical employees in comparison with other occupations. Psycho-social facts affect the duration of the healing.

Key words: *low back pain, obesity, sick leaves*

Introduction

The lumbar syndrome (LS) is the common problem from which the diseased remain bedridden, disabled, in which occasion the productivity of the employees is lost (Szpalski, Gunzburg & Rydevik 2010). The spinal cord forms a stable cord, but movable in the human body. The lumbar-sacral part of the spinal cord (LSPSC) is strong, elastic and movable; it has characteristics which are needed for the straight (proper) position and completion of all normal life activities of the human. This straight and proper position affects the whole spinal cord. Stiffness (blockage) in the LSPCS limits the locomotor skills (movement), flexion, extension and many other normal daily activities (Twomey & Taylor, 1987; Pengel, Herbert, Maher & Refshauge, 2003). Position, balance muscles, weakness of muscles, spondylosis, arthritic changes, mechanical movements disorders could be the source or the cause of the symptoms at diseased with the low back pain (Maitland's, Hengeveld, Banks & English, 2005).

To determine the duration of the sick leaves during one year period at diseased with the low back pain comparing to obesity.

Methods

The research was conducted in the Physiatrist Service at the Institute of the Occupational Medicine (IOM) during one year period during the year of 2013. The total number of the diseased included in this research was 101 who were of adult age, employed at Energy Corporation of Kosovo (ECK). The research was long-term and retrospective. The material was obtained in protocolled manner. The subjective data were collected; age, gender, working experience, clinical signs and occupation.

The objective data, as well as specific tests and diagnostics were carried out in the Physiatrist service, while the radiography was examined by the radiologist. From the records of the systematic visits,the information about the weight and height were taken. Also, the duration of the sick leaves was copied from the medical records. The application of the physical therapy was taken from the protocol register. The patients were treated with physical therapy at IMP. Out of total 101 patients, they have applied physical therapy. Physiotherapy is applied according to the protocol of McKenzie in a standardized protocol and tailor made for each case. The main goals of the McKenzie Protocol are: reduction of pain and deformity, conservation and education for a good posture, full function recovery, and prevention of dissability[4]. In general, Physiotherapy has focused on static and dynamic exercises to strengthen the muscles of the lumbar region, abdominal, pelvic muscles, spine, and in general extremities, especially legs.

Results

The presentation of data was carried out through the tables and pictures. The following statistical parameters were in-

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cluded: index of the structure, arithmetic average, standard deviation as well as minimal and maximal value. For testing of non-parametric data was used X 2 and Fisher's test, while T-test was used for the parametric data. Verification of the tests for the level of reliability 95%, is ($p<0.05$).

Out of all examinees, in the greater number of them (44.6%) the duration of the disease was up to 4 years. In regards to the distribution according to the groups, in obese ones with a higher frequency they had duration up to <1 year, while the duration of disease in non-obese ones was longer (1-4; Table 1).

Table 1. Duration of pain according to the groups

	group I Non obese		group II Obese		Totally	
Duration of pain (years)	N	%	N	%	N	%
<1	28	40	17	54.8	45	44.6
1-4	30	42.9	12	38.7	42	41.6
>4	12	17.1	2	6.5	14	13.9
Totally	70	100	31	100	101	100

As seen in the Table 2, only 11 or 10.9% of the diseased, during the period of the research, didn't use their sick leaves because of the low back pain. While the greater number of them 30 or 29.7% have used the sick leave in duration of one up to two weeks.

Table 2. Sick leaves according to the groups

	Group 1 non obese		Group 2 Obese		Totally	
Sick leaves (week)	N	%	N	%	N	%
0	8	11.4	3	9.7	11	10.9
1-2	23	32.9	7	22.6	30	29.7
3-4	15	21.4	7	22.6	22	21.8
5-6	9	12.9	6	19.4	15	14.9
7-8	8	11.4	4	12.9	12	11.9
9+	7	10.0	4	12.9	11	10.9
Totally	70	100.0	31	100.0	101	100.0

By the distribution of the cases according to the groups we have obtained similar structure, and this can be seen from the T-test, in which occasion we didn't obtain important statistical significance between the groups in relation to the duration of the sick leaves per week ($t=0.602$; $p>0.05$; Table 3).

Table 3. Average sick leaves (week) according to the groups

Sickleaves (week)	Group 1 (non obez)	Goup 2 (Obez)	Totally
N	70	31	101
Average	3.94	4.42	4.09
Dev. Stand.	3.74	3.58	3.68
Min	0	0	0
Max	19	13	19
T-test, P-value	t=0.602, P=0.548		

While the average sick leave at diseased from non-obese group was 3.94 per week (SD±3.74 week), rank 0-19 week, the ones from obese group it was 4.42 per week (SD±3.58 week), rank 0-13 week (Table 2). The examinees who perform physical work have used longer sick leaves in comparison with the other groups (41.3%; 37.5%; 27.3%; Table 4).

Table 4. Sick leaves according to the mandatory position at work

	Siting position		Hard work		Often sitting		Totally	
Sick leaves (week)	N	%	N	%	N	%	N	%
0	4	18.2	7	11.1	-	-	11	10.9
1	2	9.1	13	20.6	4	25.0	19	18.8
2	5	22.7	5	7.9	1	6.3	11	10.9
3	3	13.6	9	14.3	3	18.8	15	14.9
4	2	9.1	3	4.8	2	12.5	7	6.9
5+	6	27.3	26	41.3	6	37.5	38	37.6
Totally	22	100.0	63	100.0	16	100.0	101	100.0

Discussion

During our work we found that 89% of the diseased have used their sick leaves. Approximate data are presented also by Wittink and Michel (2002). We got contradictory data regarding the bedridden sick leaves or application of the physical therapy in the acute phase. Barclay (2007) came to a conclusion that in regards to the acute low back pain, the diseased who are active

during this phase have more benefits in relation to decreasing of pain and preservation of the function in comparison to the ones who stay bedridden (lying) at this phase. At the diseased who suffered the pain along N. Ishiadicus there wasn't found significant difference whether they stayed active or bedridden.

Sick leaves are longer at physical employees comparing to other occupations. Physical workload at work affects appearing of pain along N. Ishiadicus while the psycho-social factors affect the duration of the healing.

R E F E R E N C E S

Szpalski, M., Gunzburg, R., & Rydevik, B. (2010) *Surgery for Low Back Pain. Springer.* Verlag, Berlin, Hidenberg.

Twomey, L.T., & Taylor, J.R. (1987). Physical therapy of the low back. *Churchill livingstone, 5*, 114.

Pengel, L.H.M., Herbert, R.D., Maher, C.G., & Refshauge, K.M. (2003). Acute low back pain: systematic review of its prognosis. *BMJ*, 323-327.

Maitland's, G., Hengeveld, E., Banks, K., & English, K. (2005). Maitland's vertebral manipulation. *Elsevier.*, 342,343.

Wittink, H., & Michel, T. (2002). *Chronic pain management for physical therapists*. Elsevier Health Sciences.

Barclay, L. (2007). Guidelines Issued for Management of Low Back Pain. Medscape. *Ann Intern Med.,147*, 478-491.

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