QUALITY OF LIFE IN POST-STROKE PATIENTS: SELF-EVALUATION OF PHYSICAL AND MENTAL HEALTH DURING SIX MONTHS

Nada Prlić[1], Dragutin Kadojić[2] and Mira Kadojić[3]

[1]Osijek Secondary Medical School; [2]University Department of Neurology, [3]Department of Physical Medicine and Rehabilitation, Osijek University Hospital Center, Osijek, Croatia

SUMMARY – The purpose of this prospective study was to determine the quality of life and resocialization of post-stroke patients in the Osijek-Baranya County during six months. The study included 161 patients (82 men and 79 women) having sustained their first ever acute stroke and being treated at University Department of Neurology, Osijek University Hospital Center in Osijek. The Health Survey SF-36 questionnaire was used for self-evaluation of the patients' physical and mental health. Initial assessment was carried out in the acute phase of the disease and follow-up assessments were carried out 30, 90 and 180 days post-stroke in patient homes. The mean value of physical health measured by SF was 46.1 on initial measurement, 37.8 on second, 44.3 on third and 53.0 on fourth measurement. The mean value of mental health was 48.0 on initial measurement, 36.6 on second, 44.0 on third and 48.5 on fourth measurement. The median of total physical health and mental health on all measurements was higher in men than in women. Comparison of the quality of life areas and the items measured by SF-36 questionnaire according to sex and measurements showed statistically significant differences on all four measurements in women for all items except for social function (p=0.669). In men, statistically significant differences between the measurements were only recorded for the item of physical activity (p=0.013). Stroke significantly impairs the quality of life of affected people. The study showed that the poorest results were recorded 30 days of the onset of symptoms, while recovery was achieved in six months. Patients affected by stroke who stayed with their families considered their physical and mental health better than before stroke.

Key words: *Quality of life; Patient; Stroke; Resocialization*

Introduction

According to epidemiological data, stroke is the second most common cause of death in the world. According to the World Health Organization (WHO), 5.7 million people died from stroke in 2005, accounting for 9.9% of all deaths[1]. In western countries, both morbidity and mortality rates are decreasing.

Stroke is one of the leading causes of death in Croatia. In 2007, the general mortality rate for cerebrovascular diseases was 187.6 *per* 100,000 inhabitants. Stroke not specified as hemorrhage or infarction was the most common diagnosis causing death, i.e. 65.4% of people who died from cardiovascular diseases[2-4].

Stroke is among the ten leading causes of death in the Osijek-Baranya County and the first cause in 2007 with 676 deaths (254 men and 422 women), accounting for 16.4% of all deaths. Mortality rate of cerebrovascular diseases is higher in women than in men: 245.6 and 160.1 *per* 100,000 inhabitants, respectively. The number of patients hospitalized at Osijek University Hospital Center for stroke is constantly increasing; 781 patients were hospitalized for stroke in 2001 and 1065 patients in 2007[5].

Correspondence to: *Nada Prlić, MD, PhD*, Osijek Secondary Medical School, Vukovarska 209, HR-31000 Osijek, Croatia
E-mail: nadaprlic26@gmail.com

Received April 26, 2012, accepted September 9, 2012

Stroke incidence increases with age. Wolfe estimates that the number of patients with their first ever stroke will increase by 30% between 1983 and 2023[6]. In the World Stroke Day Proclamation, Hachinski issues a warning concerning the rising stroke epidemic and predicts that mortality rate will increase to 6.7 million people by 2015 unless preventive measures are taken[7].

In people of lower social status, the possible incidence of stroke increases by 60% in comparison to those of higher social status[6]. Four out of five strokes occur in countries with low or medium income, which cannot deal with the consequences of stroke. More recently, stroke occurs in people in their most productive age[7].

Quality of life has been in the focus of interest of many researchers and scientists for a long time. Definitions and measurements of the quality of life have varied and changed over years. World Health Organization defines quality of life as the individuals' perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. This general definition includes physical health, psychological status, level of independence, social relations and personal beliefs in the context of their culture. This definition also reflects the attitude that quality of life is subjective experience that simultaneously includes positive and negative views on life and has a multi-dimensional quality[8].

The patient's personal evaluation is important in the assessment of physical and social outcome of the disease, i.e. quality of life[9]. Patients who can return to normal life situations have better outcome and quality of life[10].

Many patients who have sustained stroke have restrictions in their physical and cognitive functions. Mental health, physical and cognitive impairment are related to decreased quality of life, but it is possible to reduce the impact of functional status on the quality of life by providing social support and education of patients and their family members along with suitable community support[11-18].

The aim of this study was to determine the quality of life and re-socialization of post-stroke patients in the Osijek-Baranya County during six months.

Table 1. Subject characteristics

Characteristic	Number of subjects (%)		p*
	Sex		
	Men n=82 (50.93)	Women n=79 (49.07)	
Age			
Mean	67.35	72.43	
Minimum	42	35	<0.001
Maximum	93	98	
Way of living			
Alone	20 (24.39)	21 (26.58)	
With spouse	52 (63.41)	21 (26.58)	
With housekeeper or domestic help	0	2 (2.53)	<0.001
In home for the elderly	5 (6.10)	13 (16.46)	
Other	5 (6.10)	22 (27.85)	
Qualifications			
Elementary school	56 (68.29)	61 (77.22)	
High school / Vocational school	21 (25.61)	14 (17.72)	
Bachelor's degree	2 (2.44)	2 (2.53)	0.624
Master's degree	3 (3.66)	2 (2.53)	
Marital status			
Married	54 (65.85)	23 (29.11)	
Divorced	9 (10.98)	4 (5.06)	
Widowed	13 (15.85)	46 (58.23)	<0.001
Never been married	6 (7.32)	6 (7.59)	
Stroke type‡			
Ischemic	75 (91.46)	70 (88.61)	0.605
Hemorrhagic	7 (8.54)	9 (11.39)	
Stroke localization			
Right hemisphere	33 (40.24)	40 (50.63)	
Left hemisphere	38 (46.34)	34 (43.04)	
Cerebellar	4 (4.88)	2 (2.53)	0.376
Bilateral	7 (8.54)	3 (3.80)	

*χ^2-test; ‡Fisher exact test

Subjects and Methods

Subjects

This prospective study included 161 subjects (Table 1) treated at University Department of Neurology, Osijek University Hospital Center, for their first ever acute stroke, who survived 10-15 days after stroke. The study was conducted in the period from October 25, 2007 to December 20, 2008. During the study, 38 (23.60%) subjects died, 25 (31.64%) women and 13 (15.85%) men; 10 subjects moved elsewhere; and two subjects dropped out from the study.

Assessment of functional deficiency level and self-evaluation of health was carried out during treatment of stroke in its acute phase (10-15 days after the onset of symptoms) at University Department of Neurology, Osijek University Hospital Center; during acute rehabilitation (30 days after the onset of symptoms) at Department of Physical Medicine and Rehabilitation, Osijek University Hospital Center or at patient's home. Upon completion of hospital treatment, further assessment was carried out 90 and 180 days post-stroke at patient's home in co-operation with qualified health visitors and nurses providing nursing care at patient's home.

Methods

The researchers used the SF-36 Health Survey on all four measurements for self-evaluation of health[19,20]. The results obtained on initial measurement showed self-evaluation of health prior to stroke. The SF-36 Health Survey is a multi-purpose short questionnaire for self-evaluation of health status that consists of 36 items. The questionnaire is used to evaluate health dimensions such as physical, psychological and social functioning, social role fulfillment and perception of one's health. Every item of the questionnaire is related to one of eight different health parameters: physical activity – 10 items; restrictions in activities due to physical health – 4 items; body pain – 2 items; general health – 5 items; vitality – 4 items; social functioning – 2 items; restrictions in activities due to emotional problems – 3 items; and mental health – 5 items. The item related to self-evaluation of changes in health, i.e. the opinion of one's own health in comparison to the previous year, has five levels, from "much better than a year ago" to "much worse than a year ago"; it is not used in scoring for any dimension, but is considered useful in the evaluation of average change in health status during the year previous to the questionnaire application. Result for every area is expressed as average answer obtained in items related to that area. Total result for the first four areas gives evaluation of physical health and for the second four areas evaluation of mental health. Total result is usually expressed in the form of a profile defined by eight areas in the questionnaire that represent criteria for self-evaluation of health given in the form of a score, whereby minimal result is 0 and maximum is 100 in theory. In all areas, higher scores indicate better subjective health[20-23].

Statistical analysis

Numerical data were presented as standard values of median and dispersion. Categorical variables were presented as absolute and relative frequencies. Difference was tested for each group of patients on four measurements. Difference between categorical variables was tested by χ^2-test and Fisher exact test. Friedman test was used in the analysis of differences among the four measurements. Spearman coefficient of correlation (ρ) was used to evaluate correlation[27-29]. Originally designed programs for databases were used along with the statistical Statistica for Windows 2005 software (variant 7.1, StatSoft Inc., Tulsa, OK, USA). To evaluate the significance of the data obtained, the level of significance was set at α=0.05.

An informed consent was obtained from all subjects included in the study. The study protocol was approved by the Ethics Committee of the Osijek University Hospital Center.

Results

Quality of life areas, physical and mental health measured by SF-36 questionnaire showed difference between the measurements (Friedman test). There was a difference in total health between the measurements (Table 2).

Comparison of the quality of life areas and items measured by SF-36 questionnaire according to sex and measurements showed statistically significant differences among all four measurements in all items except for social function in women (p=0.669). In men,

Table 2. Quality of life areas according to time of measurement

SF-36 health areas	Measurement				p†
	After 10-15 days (N=68)	After days 30(N=128)	After 90 days (N=116)	After 180 days (N=111)	
	M* (25%-75%)	M* (25%-75%)	M* (25%-75%)	M* (25%-75%)	
Physical health	46.1 (29.6-58.9)	37.8 (24.3-53.8)	44.3 27.8-67.3)	53 (33-74.3)	0.033
Mental health	48 (37.2-61.3)	36.8 (28.8-46.2)	44 (30.8-55.4)	48.5 (37-60.4)	0.041
SF-36v2 total	46.39 (34.3-58.5)	37.1 (26.4-48.6)	44.2 (30.6-60.3)	50.2 (34.3-67.4)	0.040

*Median; †Friedman test

Table 3. Comparison of quality of life areas and items according to sex and time of measurement

Health area	Items SF-36	Sex	Measurement				p*
			10-15 days (N=68)	30 days (N=128)	90 days (N=116)	180 days (N=111)	
			M† (25%-75%)	M† (25%-75%)	M† (25%-75%)	M† (25%-75%)	
Physical health	Physical activity	M	40 (1.25-55)	35 (5-65)	55 (15-75)	65 (35-87.5)	**0.013**
		F	10 (0-50)	10 (0-35)	15 (0-60)	32.5 (0-67.5)	**<0.001**
	Restriction of activity due to physical health	M	46.8 (25-75)	18.7 (0-37.5)	43.7 (12.5-65.6)	56.3 (25-78.1)	0.686
		F	50 (26.6-84.4)	6.3 (0-40.6)	25 (0-62.5)	37.5 (4.6-75)	**<0.001**
	Body pain	M	60 (40-70)	70 (40-90)	70 (40-90)	70 (45-90)	0.925
		F	50 (32.5-70)	50 (30-70)	40 (30-70)	50 (40-80)	**0.008**
	General perception of health	M	52 (40-62)	52 (40-62)	52 (40-62)	52 (42-67)	0.441
		F	48.5 (40-60.7)	45 (35-57)	45 (32-60)	49.5 (37-62)	**0.007**
Mental health	Vitality / Energy	M	40 (25-53.7)	30 (15-45)	40 (20-50)	45 (30-65)	0.870
		F	35 (21.3-53.7)	20 (10-35)	30 (15-40)	30 (20-50)	**<0.001**
	Social functions	M	48 (40-60)	50 (37-50)	50 (37.5-50)	50 (43.7-50)	0.917
		F	50 (37.5-50)	50 (43.7-50)	50 (37.5-50)	50 (37.5-50)	0.669
	Restriction due to emotional problems	M	50 (25-75)	33.3 (16.6-50)	50 (25-83.3)	75 (33.3-95.8)	0.316
		F	50 (27.1-100)	25 (0-50)	50 (16.7-75)	50 (25-77.1)	**<0.001**
	Mental health	M	48 (40-60)	48 (36-60)	48 (34-64)	52 (40-64)	0.603
		F	44 (32-71)	36 (24-50)	40 (24-56)	42 (28-57)	**0.009**
Physical health		M	48 (30-60)	40 (30-58)	48.6 (36-68.6)	61 (43-76.1)	**0.040**
		F	39 (28-58)	28.8 (20.46.3)	34 (18.7-56)	37.7 (25-69.3)	**<0.001**
Mental health		M	49 (36-61)	39 (31-47)	49 (34-60)	53 (38-64)	**0.030**
		W	43 (38-64)	35 (22-44)	40 (27-52)	41 (32-56)	**<0.001**
SF – 36v2 total		M	34 (34-59)	40 (32-51)	49 (36-63)	57 (42-71)	**0.025**
		W	43 (33-59)	32 (22-44)	39 (25-53)	43 (27-64)	**<0.001**

†Median; *Friedman test

a statistically significant difference among measurements was only recorded in the item of physical activity (p=0.013) (Table 3).

The median of total physical health and mental health was higher in men than in women (Me= 48, 40, 48.6, 61 and Me=49, 39, 49, 53, respectively) (Table 3).

There was very good to excellent correlation (Spearman coefficient of correlation) on initial measurement between the SF-36 items of restrictions due to emotional problems and restrictions due to physical difficulties (ρ=0.777); on second measurements between the items of restrictions due to physical difficulties and physical activity (ρ=0.772); restrictions due to emotional problems and restrictions in activities due to physical difficulties (ρ=0.790); on third measurement between the items of restrictions due to physical difficulties and physical activity (ρ=0.863); restrictions due to emotional problems and restrictions due to physical difficulties (ρ=0.772); vitality and energy and mental health (ρ=0.794); and on fourth measurement between the items of restrictions due to physical difficulties and physical activity (ρ=0.861); restrictions due to emotional problems and physical activity (ρ=0.801), and restrictions due to physical difficulties (ρ=0.841).

Discussion

This was the first study in Croatia where SF-36 Health Survey for assessment of the post-stroke quality of life was applied on four subsequent measurements. To our knowledge, there is no report in the literature available on a study where four measurements were taken. Our study showed that recovery was achieved in six months.

Subjective perception of the patient is important to evaluate physical and mental outcome of the disease, i.e. quality of life[9]. The median of total physical and mental health and SF-36 total on initial measurement showed self-evaluation of health prior to stroke; on second measurement, the mean values of physical and mental health and total SF-36 were lower; 90 days after the onset of symptoms, self-evaluation of health showed higher mean values; and 180 days after stroke patients evaluated their physical and mental health and total SF-36 with a higher mean value than the value given before stroke, which could be explained by their accepting the disease. Self-evaluation of individual items of health among measurements showed differences in all items except for the item of social function. There was high correlation between the items of restriction due to physical difficulties and physical activity, restriction due to emotional problems and restrictions in activities due to physical difficulties, and vitality and energy and mental health.

The SF-36 Health Survey has been employed in many studies to evaluate the post-stroke quality of life, but evaluation was carried out only once and/or at longer time intervals[27-30]. Results of a study conducted in Sweden from 2003 to 2005 two to three weeks after stroke showed higher median in all items except for restrictions due to physical health[31]. Results of a study conducted in Canada that included patients six months after stroke and control group showed lower mean values of total physical and mental health in patients than in control group as well as in comparison with our study[32]. Hopman and Verner compared the results obtained on admission to the hospital, at discharge from the hospital, and six months after stroke, where the results were better in all eight areas, but were statistically significant in only five of them (physical activity, mental health, social functions, body pain and general perception of health)[13]. Comparison with our study yielded difference in only two items, body pain and social functions.

When analyzing differences in the results on the quality of life in relation to other studies, we need to take into account the context of patients' culture and their value systems in relation to their goals, expectations, standards and hopes. In a research conducted in general population, there was difference between the results obtained in European countries and in the USA. The results obtained by SF-36 Health Survey in Croatia were very similar to those obtained in other European countries, but total quality of life was lower in Croatia[33]. Subjective evaluation of health showed difference among various counties; Krapina-Zagorje County and Osijek-Baranya County had a large part of the population (more than 40%) who stated that they had a chronic disease or a condition that restricted their everyday activities[34].

Stroke consequences are getting worse with older age. Research on the quality of life of the elderly who have not had stroke[35,36] showed a higher level of both

physical and mental health than in patients included in our study. Results of a study where the consequences of stroke were compared with age showed that during acute treatment and rehabilitation, older patients had better results in body pain and general perception of health, and younger patients in vitality. Six months after stroke, there were no significant differences, which indicated that age was not an important factor in the post-stroke quality of life[13].

Sex is also a risk factor, especially in women of older age. There was a sex difference on all four measurements in all items except for social function. Women evaluated their health as lower on all measurements. Similar results were obtained in other studies[13,37,38].

We could not determine the influence of education level on mental health because 117 patients (72.67% of all study patients) had only elementary school and only five patients had a university degree. The patients included in the study had three professional visits during the study not only to carry out the study but also to give patients instructions how to live and to give them support, which may be linked to their evaluation of the quality of life.

In our study, patients whose discharge from the hospital was planned and who had help of their families showed significant improvement, unlike patients who had lived in a family prior to stroke and were put into a home or a foster family after discharge from the hospital, whose final outcome was death. Similar results were obtained by Hopman and Verner[13].

Mental health, physical and cognitive impairment are related to decreased quality of life, but it is possible to decrease the influence of functional status on the quality of life through social support, education of both patients and members of their families, and suitable support from the community[12-17,38-44]. Patients who can re-integrate into normal life have better outcome of the disease and better quality of life[12].

Conclusion

Accordingly, it is concluded that stroke has significant impact on the quality of life of post-stroke patients. Women evaluated their health, both physical and mental, lower than men. The study showed that recovery was achieved in six months.

References

1. World Health Organization. WHO STEPS Stroke Manual. Geneva: WHO, 2005.
2. HRABAK-ŽERJAVIĆ V, KRALJ V. Epidemiologija moždanog udara. Lijec Vjesn 2008;130(Suppl 6):5-6. (in Croatian)
3. Hrvatski zdravstveno statistički ljetopis za 2007. godinu. Zagreb: Hrvatski zavod za javno zdravstvo, 2008. (in Croatian)
4. ĆORIĆ T, *et al*. Izvješće o umrlim osobama u Hrvatskoj u 2007. godini. Zagreb: Hrvatski zavod za javno zdravstvo, 2008. (in Croatian)
5. Pučanstvo Osječko-baranjske županije. Osijek: Zavod za javno zdravstvo Osječko baranjske županije, 2008. (in Croatian)
6. WOLFE CDA. The impact of stroke. Br Med Bull 2000;56:275-86.
7. HACHINSKI V. World Stroke Day Proclamation. Stroke 2008;39:2409-20.
8. The WHOQOL Group. The World Health Organization quality of life assessment (WHOQOL): position paper from the World Health Organization. Soc Sci Med 1995;41:1403-9.
9. TRIGG R, WOOD VA, HEWER RL. Social reintegration after stroke: the first stages in the development of the Subjective Index of Physical and Social Outcome (SIPSO). Clin Rehabil 1999;13:341-53.
10. DANESKI K, COSHALL C, TILLING K, WOLFE CD. Reliability and validity of a postal version of the Reintegration to Normal Living Index, modified for use with stroke patients. Clin Rehabil 2003;17:835-9.
11. VITAS M. Quality of life after stroke.Acta Clin Croat 2004;43(Suppl 1):182-3.
12. CLARKE P, MARSHALL V, BLACK SE, COLANTONIO A. Well-being after stroke in Canadian seniors: findings from the Canadian Study of Health and Aging. Stroke 2002;33:1016-21.
13. HOPMAN WM, VERNER J. Quality of life during and after inpatient stroke rehabilitation. Stroke 2003;34:801-5.
14. LYNCH EB, BUTT Z, HEINEMANN A, VICTORSON D, NOWINSKI CJ, PEREZ L, CELLA D. A qualitative study of quality of life after stroke: the importance of social relationships. J Rehabil Med 2008;40:518-23.
15. LINCOLN NB, FRANCIS VM, LILLEY SA, SHARMA JC, SUMMERFIELD M. Evaluation of a stroke family support organiser: a randomized controlled trial. Stroke 2003;34:116-21.
16. GRANT JS, ELLIOTT TR, WEAVER M, GLANDON GL, RAPER JL, GIGER JN. Social support, social problem-solving abilities, and adjustment of family caregivers of stroke survivors. Arch Phys Med Rehabil 2006;87:343-50.

17. LANGHORNE P, TAYLOR G, MURRAY G, DENNIS M, ANDERSON G, *et al*. Early supported discharge services for stroke patients: a meta-analysis of individual patients' data. Lancet 2005;365:501-6.
18. VRDOLJAK D, RUMBOLDT M. Quality of life after stroke in Croatian patients. Coll Antropol 2008;32:355-9.
19. SF-36® Health survey scoring demonstration. Available from: URL: http://www.sf-36.org/demos/SF-36.html
20. WARE JE. SF-36 Health survey update. Available from: URL: http://www.sf-36.org/tools/sf36.shtml
21. WARE JE. Health survey SF-36. Spine 2000;25:3130-9.
22. WARE JE, KOSINSKI M. SF-36 Physical & Mental Health Summary scales: a manual for user of Version 1. 2. 2005..
23. WARE JE, SHERBOURNE CD. The MOS 36-item short-form health survey (SF-36). I Conceptual framework and item selection. Med Care 1992;30:473-83.
24. PETZ B. Statistika za praksu. Zagreb: Ministarstvo unutarnjih poslova Republike Hrvatske, 1994.
25. AGRESTI A. Categorical data Analysis, 2nd edn. New York: John Wiley and Sons, Inc., 2002.
26. DAWSON B, TRAPP RG. Basic & clinical biostatistics, 3rd edn. New York: McGraw-Hill Companies, Inc., 2000.
27. MAHONY PG, RODGERS H, THOMSON RG, DOBSON R, JAMES OFW. Is the SF-36 suitable for assessing health status of older stroke patients? Age Ageing 1998;27:19-22.
28. JÖNSSON AC, LINDGREN I, HALLSTRÖM B, NORRVING B, LINDGREN A. Determinants of quality of life in stroke survivors and their informal caregivers. Stroke 2005;36:803-8.
29. LAI SM, PERERA S, DUNCAN PW, BODE R. Physical and social functioning after stroke: comparison of the Stroke Impact Scale and Short Form-36. Stroke 2003;34:488-93.
30. HOBART JC, WILLIAMS LS, MORAN K, THOMPSON AJ. Quality of life measurement after stroke: uses and abuses of the SF-36. Stroke 2002;33:1348-56.
31. ALMBORG AH, BERG S. Quality of life among Swedish patients after stroke: psychometric evaluation of SF-36. J Rehabil Med 2009;41:48-53.
32. MAYO NE, WOOD-DAUPHINEE S, COTE R, DURCAN L, CARLTON J. Activity, participation, and quality of life 6 months poststroke. Arch Phys Med Rehabil 2002;83:1035-42.
33. JUREŠA V, IVANKOVIĆ D, VULETIĆ G, BABIĆ-BANASZAK A, SRČEK I, MASTILICA M, BUDAK A. The Croatian Health Survey – SF-36: I General quality of life assessment. Coll Antropol 2000;24:69-78.
34. ŠUĆUR Z. Zdravlje i kvaliteta zdravtsvenih usluga. In: Kvaliteta života u Hrvatskoj. Regionalne nejednakosti. Zagreb: Program Ujedinjenih naroda za razvoj (UNDP) u Hrvatskoj, 2007. (in Croatian)
35. MARTINIS T. Percepcija kvalitete života u funkciji dobi. Available from: URL: http://darhiv.ffzg.hr/337/ (in Croatian)
36. PRLIĆ N, ĐERI K, PLUŽARIĆ J. Self-perception of the quality of life of the elderly. Obzornik zdravstvene nege 2008;42:3-11.
37. PETREA RE, BEISER AS, SESHADRI S, KELLY-HAYES M, KASE CS, WOLF PA. Gender differences in stroke incidence and poststroke disability in the Framingham Heart Study. Stroke 2009. DOI: 10.1161/STROKEAHA.108.542894.
38. WISZNIEWSKA M, NIEWADA M, CZLONKOWSKA A. Sex differences in risk factor distribution, severity, and outcome of ischemic stroke. Acta Clin Croat 2011;50:21-8.
39. ŠERIĆ V. Possibilities for rehabilitation after stroke. Acta Clin Croat 2009;48:335-9.
40. DEMARIN V, LOVRENČIĆ-HUZJAN A, TRKANJEC Z, VUKOVIĆ V, VARGEK-SOLTER V, ŠERIĆ V, *et al*. Recommendations for stroke management. Acta Clin Croat 2006;45:219-85.
41. ČENGIĆ Lj, VULETIĆ V, KARLIĆ M, DIKANOVIĆ M, DEMARIN V. Motor and cognitive impairment after stroke. Acta Clin Croat 2011;50:463-7.
42. DEMARIN V, MOROVIĆ S. Physical activity and stroke. Acta Clin Croat 2010;49(Suppl 2):99-100.
43. JARACZ K, KOZUBSKI W. Quality of life in stroke patients. Acta Neurol Scand 2003;107:324-9.
44. TILLING K, COSHALL C, McKEVITT C, DANESKI K, WOLFE C. A family support organiser for stroke patients and their carers: a randomised controlled trial. Cerebrovasc Dis 2005;20:85-91.

Sažetak

KVALITETA ŽIVOTA BOLESNIKA POSLIJE MOŽDANOG UDARA: ŠESTOMJESEČNA SAMOPROCJENA TJELESNOG I MENTALNOG ZDRAVLJA

N. Prlić, D. Kadojić i *M. Kadojić*

Cilj ove prospektivne studije bio je utvrditi kvalitetu života i stupanj resocijalizacije bolesnika nakon moždanog udara (MU) u Osječko-baranjskoj županiji tijekom šest mjeseci. Istraživanjem je obuhvaćen 161 bolesnik, 82 muškarca i 79 žena, s prvim u životu akutnim MU koji je liječen na Klinici za neurologiju Kliničkog bolničkog centra Osijek. Za samoprocjenu tjelesnog i mentalnog zdravlja upotrijebljen je Health Survey SF-36. Prvo mjerenje učinjeno je u akutnoj fazi bolesti, a kontrolne su procjene izvedene 30, 90 i 180 dana nakon MU u kući bolesnika. Medijan SF-36 za tjelesno zdravlje iznosio je: prvo mjerenje 46,1; drugo 37,8; treće 44,3; četvrto 53,0. Mentalno zdravlje: prvo mjerenje 48,0; drugo 36,6; treće 44,0; četvrto 48,5. Kod muškaraca je medijan za ukupno tjelesno zdravlje i mentalno zdravlje po mjerenjima bio veći negoli kod žena. Usporedba područja i stavaka kvalitete života mjerenih pomoću SF-36 u odnosu na spol i mjerenja pokazala je značajnu razliku u sva četiri mjerenja kod žena po svim stavkama osim u socijalnoj funkciji (p=0,669). Kod muškaraca je značajna razlika između mjerenja zabilježena samo kod stavke tjelesne aktivnosti (p=0,013). MU značajno narušava kvalitetu života oboljelih. Istraživanje pokazuje kako su najlošiji rezultati dobiveni 30 dana od pojave simptoma i da se oporavak postiže za šest mjeseci. Bolesnici koji ostaju u svojim obiteljima bolje procjenjuju svoje tjelesno i mentalno zdravlje.

Ključne riječi: *Kvaliteta života; Bolesnik; Moždani udar; Resocijalizacija*