Research Article

Marital Dysfunction in Mexican Patients with Sequelae of STROKE

Martinez-Mercado OF[1], Martinez-Avena AE[2], Rivas-Gonzalez MA[1], Rodarte-Reveles A[1], Ochoa MC[3]* and Ramirez-Leyva DH[4]

[1]Department of Family Medicine, General Hospital Zone#1 (IMSS), Durango Delegation, Mexico
[2]Department of Anesthesiology, Regional General Hospital #1 (IMSS), Sonora Delegation, Mexico
[3]Department of Pediatrics, Regional General Hospital #1 (IMSS), Sonora Delegation, Mexico
[4]Department of Family Medicine, Family Medicine Unit #1 (IMSS), Sonora Delegation, Sonora, Mexico

*Corresponding author: Ochoa Maria Citlaly, Department of Pediatrics, Regional General Hospital #1 (IMSS), Sonora Delegation, Sonora, México, Colonia Centro, Cd. Obregon, Sonora, Mexico

Abstract

Background: The marital subsystem is a fundamental part of development and family functioning; promotes optimal development of all members but is affected by various diseases such as STROKE that can contribute to the deterioration of this subsystem.

Aim: So the purpose of this study is to know the primary factors that influence marital dysfunction in patients with sequelae of STROKE.

Design and Setting: Case and Controls study (1:2).

Methods: In 234 patients (78 patients with sequelae of STROKE and 156 controls) in a family medicine unit in Durango, Mexico, two groups where formed, the STROKE group (patients with sequelae of STROKE) and the control group (patients without medical history of STROKE), surveys were conducted in obtaining socio-demographic (gender), clinical (sequelae of STROKE, Zarit caregiver burden, grade of disability) and family information (marital functionality and years of marriage).

Results: there was differences statistically significant between groups establishing the presence of sequels as a risk factor to marital dysfunction (p=0.04, OR=2.0 95% CI [1.2-4.3]).

Conclusion: STROKE and its sequelae are a risk factor for marital dysfunction. Future research on the diseases that are a risk factor for STROKE and marital dysfunction are required.

Keywords: STROKE; Marital Subsystem; Marital Dysfunction

Introduction

STROKE is defined as a clinical syndrome of vascular origin characterized by the rapid development of signs and symptoms associated with focal neurological affection that persists for more than 24 hours [1]. According to WHO, STROKE is a major cause of disability and impaired quality of life. In addition to the physical limitations, it is associated with problems in the emotional sphere as depression, cognitive impairment and dementia [2].

STROKE is a public health problem. It is the second overall cause of death (9.7%), of which 4.95 million occur in countries with low and middle incomes. The recurrence rate at two years going from 10 to 22%, but can be reduced by up to 80% by modifying risk factors. It is estimated that by 2030, its incidence will increase to 44%. Data from the Ministry of Health of Mexico show that in our country the rate of STROKE mortality has increased since 2000, particularly in patients under 65 years. During 2008, the mortality rate was 28.3/100,000 inhabitants [3]. The simplest and widespread classification of cerebrovascular disease is the one that refers to its origin, which divides into two groups: ischemic and hemorrhagic. Ischemia occurs as a result of the lack of blood supply to the brain, while the bleeding is due to extravasation of blood by the rupture of an intracranial blood vessel [4]. The initial diagnosis of patients with STROKE is clinical. Several scales have been developed to quantify the severity of the patient. NIHSS scale is most often used [3].

Patients who have suffered a stroke may experience a variety of limitations and complications that may hinder their optimal recovery. Motor disorders after stroke are incoordination, selective loss of movement, loss of motor control and weakness. Weakness is probably the most disabling factor in movement. Often patients who have suffered a stroke have undergone any change of mood, especially depression. They can experience anxiety or emotional lability. It is very likely that certain changes in cognitive functions are present in all patients who have suffered a stroke. These changes may be general (slowness in processing information), or some specific areas such as orientation, attention, memory, mental flexibility, planning and organization) [5].

Other affected areas in patients with STROKE are the social and family problems in the patient's environment; activities of daily life and sexuality. It is common for patients who have suffered a STROKE encounter difficulty in sexual life. The prevalence of sexual dissatisfaction is very high, both patients and their partners [5]. We must also consider the overload of the primary caregiver, when a person loses their autonomy and has dependence necessarily appears the figure of the caregiver; this is defined as the person responsible for the care of a patient, dependent or disabled, requiring assistance permanently and continuously. This function is developed by someone called "primary caregiver" who is facing the most effort and responsibility of care with a greater degree of involvement than the rest of the family [6].

Table 1: Association between marital dysfunction and STROKE in Mexican patients.

Variable		Cases (With STROKE)		Controls (Without STROKE)		OR	95% CI	p
		N	%	N	%			
Marital Functionality	Dysfunction	47	59.5	66	41.7	2.0	1.2-4.3	0.04*
	Functionality	31	40.5	90	58.3			

N: Frequency, %: Percentage, OR: Odds Ratio, CI: Confidence Interval, p: Chi Square, *: statistically significant.

Table 2: Univariate and bivariate analysis of factors associated with marital dysfunction in Mexican patients with STROKE.

Variable		Cases (Marital dysfunction)		Controls (Marital functionality)		OR	95% CI	p
		N	%	N	%			
Years of marriage	0-15 years	27	45	38	57.5	0.6	0.2-1.2	0.15
	16 years or more	33	55	28	42.5			
Caregiver burden	Yes	28	46.6	10	15.1	4.9	2.1-11.3	0.001
	No	32	53.4	56	84.9			
Gender	Men	13	21.6	20	30.3	0.6	0.2-1.4	0.27
	Women	47	78.4	46	69.7			
Functional Dependence	Yes	12	20	1	1.5	16.2	2.0-85.2	0.001
	No	48	80	65	98.5			
Alterations in communication	Yes	7	11.6	19	28.7	0.32	0.1-0.8	0.01
	No	53	88.4	47	71.3			
Alterations in roles	Yes	18	30	12	18.1	1.9	0.8-4.4	0.12
	No	42	70	54	81.9			
Alterations in sexuality	Yes	18	30	15	22.7	1.4	0.6-3.2	0.35
	No	42	70	51	77.3			
Alterations in affection	Yes	4	6.6	10	15.1	0.4	0.1-1.3	0.16
	No	56	93.4	56	84.9			
Alterations in decisions	Yes	13	21.6	10	15.1	1.5	0.6-3.8	0.34
	No	47	78.4	56	84.9			

N: Frequency, %: Percentage, OR: Odds Ratio, CI: Confidence Interval, p: Chi Square.

Finally, in patients with sequelae of STROKE marital dysfunction may exist for the adaptation of the couple to this crisis. Marital subsystem is constituted when two adults of different gender are united with express intention to form a family. It has specific tasks and vital functions for family functioning. Marital subsystem must reach a limit to protect it from demands and needs of other systems, adults should have own psychosocial system [7]. To assess marital subsystem different scales are used, most used in Mexico was proposal by Chavez which assesses five areas of marital functioning: communication, roles, sexual satisfaction, affection and decision making; communication area is considered most important by providing most points in scale. Communication area is where couple disclosed intentions, desires, plans and where agreements and limits are generated for proper coexistence [8].

Materials and Methods

A case and control study was carried out, in the General Hospital Zone #1, of the Mexican Institute of Social Security, located in Durango, Mexico; in patients with sequelae of STROKE which were selected by a consecutive sampling techniques; that met the following inclusion criteria: age between 55 to 89 years, with sequelae of STROKE that accepted and signed the informed consent, in the company of wife or husband; patients with psychiatric illness were not included and eliminated those who did not complete the survey.

The following data were obtained directly from the patients and couple: gender, years of marriage, and sequelae of STROKE. Caregiver burden was assessed with Zarit test, a scale validated in Spanish with a Cronbach's alpha of 0.86 [9]. The punctuation goes from 0 to 88 points; it is classified as no caregiver burden (0-46 points), mild caregiver burden (47-55 points) and severe caregiver burden (56-88 points). The grade of disability was assessed with the Rankin scale a validated scale that classifies disability in seven categories, from 0-7, with lower scores there is less disability [10]. To assess marital subsystem we used the marital subsystem scale of Chavez which assesses five areas of marital functioning: communication, roles, sexual satisfaction, affection and decision making, the punctuation goes from 0-100 points and classifies marital function in two stages, marital dysfunction (0-70 points) and marital functionality (71-100) [8].

The data obtained was integrated into data collection sheets and analyzed using the SPSS program version 20 in Spanish, where we applied descriptive statistics for qualitative variables use frequencies and percentages and for quantitative variables mean and standard

deviation were used. The patients were divided into two groups, cases (patients with sequelae of STROKE) and controls (without STROKE) considering individual medical history. It was considered a p< 0.05, with a 95% confidence interval, all variables were dichotomized to apply odds ratio and chi square. The Protocol was authorized by the Local Committee of Research and Ethics in Health Research from the General Hospital Zone #1, where the study took place.

Results

We analyzed a sample of 234 patients, of whom 61(26.2%) were women and 173(73.8%) men. The average age was 62.45±8.6 (55-89) years. Out of the 234 patients, 122(52.4%) had marital functionality and 112(47.6%) marital dysfunction. In years of marriage, 120(51.6%) has between 0-15 years and 114(48.4%) 16 or more years. In caregiver burden (Zarit Scale), 163(69.8%) had not caregiver burden, 39(16.7%) mild caregiver burden and 32(13.5%) severe caregiver burden. With respect to the degree of dependence (Rankin Scale), 156(66.7%) were independents, 22(9.5%) had low dependence, 31(13.5%) mild dependence, 19(7.9%) moderate dependence, 4(1.6%) moderate-severe dependence and 2(0.8%) severe dependence. After evaluating the marital subsystem, we found that areas most affected were: sexuality 26.2%(62), roles 23.8%(55), communication 20.6%(48), affection 11.1%(26) and decision 18.3%(43) (Table 1).

Groups were classified according to presence of sequelae of STROKE and in our primary outcome (marital dysfunction) there was differences statistically significant between groups establishing the presence of sequels as a risk factor to marital dysfunction (p=0.04, OR=2.0 95%CI [1.2-4.3]). Additionally to the primary outcome, a second analysis was made to analyze the factors associated with marital dysfunction evaluating the following variables: years of marriage (0-15 years) p=0.15, OR=0.6 95%CI (0.29-1.2); caregiver burden (with caregiver burden) p=0.001, OR=4.9 95%CI (2.1-11.3); dependence (with dependence) p=0.001, OR=16.2 95%CI (2.0-85.2); alterations in communication (with alterations) p=0.01, OR=0.3 95%CI (0.1-0.8); alterations in roles (with alterations) p=0.12, OR=1.9 95%CI (0.8-4.4); alterations in sexuality (with alterations) p=0.35, OR=1.4 95%CI (0.6-3.2); alterations in affection (with alterations) p=0.13, OR=0.4 95%CI (0.1-1.3); alterations in decisions (with alterations) p=0.34, OR=1.5 95%CI (0.6-3.8) (Table 2).

Discussion

According to the results, STROKE is a risk factor for marital dysfunction. In communication variable, our study establishes as a protective factor for marital dysfunction, however, is not clinically possible because communication is the basis of marriage, this result can be interpreted as a high prevalence of problems in communication in marriage and not as a protective factor for dysfunctionality. Our results are similar to those reported by Rivas et al. in a similar study in Family Medicine Unit No. 66 of IMSS in Xalapa, Veracruz in 2013, in that study, the marital dysfunction was evaluated in patients with Diabetes Mellitus and hypertension which concluded that

marital dysfunction was more frequent in patients who had both diseases [11]. Comparing both studies we can determine that any chronic degenerative disease is a major risk factor for the existence of dysfunction in couples. It is important to assess the marital dynamics in patients with chronic degenerative diseases and if there is any alteration or dysfunction in this subsystem is our responsibility as primary care physicians guide the couple to improve this situation and obtain the required assistance.

Conclusion

STROKE and its sequelae are a risk factor for marital dysfunction. Future research on the diseases that are a risk factor for STROKE and marital dysfunction are required; according to this study the consequences of STROKE affect all areas of the marital sphere, however, one of the most affected is the sexual area, so it is necessary to implement actions to improve the quality of life of these patients and their couples. The purpose of this study is that the family physician knows the great impact that causes a disease like STROKE. The family doctor should pay special attention not only on the patient, also in his family, must teach to form support networks for prevent or delay the marital dysfunction. Future comprehensive interventions involving patient with sequelae of STROKE within family and social dynamics are required, to be able to influence positively the key factors for the evolution of the disease, regardless of other interventions such as the promotion of health, treatment and prevention of complications.

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