

DYSPEPSIA – DIFFERENCES ON QUALITY OF LIFE AND GENDER

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ABSTRACT: This study aimed to assess the quality of life in patients with organic ($n=223$) and functional ($n=125$) dyspepsia. Present data was based on baseline of a randomized clinical trial. Medical Outcomes Survey Short-form 36 was used to assess quality of life. A Chi-square test was used to compare the proportions of dyspepsia. A t test was used in the comparisons of mean quality of life. Significant differences were observed between patients with functional dyspepsia and organic dyspepsia on role-emotional and mental health domains. In a gender stratified analysis, women with functional dyspepsia presented significantly lower levels of role-emotional and mental health than those with organic dyspepsia. Among men, this relationship was only valid for the role-emotional domain. On the other hand, those with functional dyspepsia had quality of life scores significantly higher than those with organic dyspepsia on the physical functioning and bodily pain domains. These results highlight the importance of further research on the emotional aspects in dyspepsia treatment, especially in women with functional dyspepsia.

Key words: Dyspepsia, Gender, Quality of life.

DISPEPSIA-DIFERENÇAS NA QUALIDADE DE VIDA E GÊNERO

RESUMO: Este estudo visou avaliar a qualidade de vida em pacientes com dispepsia orgânica ($n=223$) e funcional ($n=125$). Os presentes dados foram baseados na primeira avaliação de um ensaio clínico randomizado. Medical Outcomes Survey Short-form 36 foi utilizado para avaliar a qualidade de vida. O teste qui-quadrado foi usado para comparar as proporções da dispepsia. O teste t foi utilizado na comparação das médias de qualidade de vida. Diferenças significativas foram observadas entre pacientes com dispepsia funcional e orgânica nos domínios papel emocional e saúde mental. Na análise estratificada por gênero, as mulheres com dispepsia funcional apresentaram níveis de papel emocional e saúde mental significativamente mais baixos do que aquelas com dispepsia orgânica. Entre os homens, esta relação somente foi válida para o domínio papel emocional. Por outro lado, aqueles com dispepsia funcional obtiveram escores de qualidade de vida significativamente mais altos do que aqueles homens com dispepsia orgânica nos domínios funcionamento físico e dor corporal. Estes resultados salientam a importância de futuras investigações referentes aos aspectos emocionais do tratamento da dispepsia, especialmente em mulheres com dispepsia funcional.

Palavras-chave: Dispepsia, Gênero, Qualidade de vida.

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Dyspepsia is a pain or discomfort which affects the upper abdomen. Approximately 25% of the general population suffers from dyspepsia (Drossman, Corazziari, Talley, Thompson, & Whitehead, 2000). Chronic gastrointestinal disorders are usually associated with a decrease in quality of life (Chang, 2004), but this relationship depends on the type of disease. Hadler et al. (2004) observed that dyspepsia was related to impairment in quality of life, whereas irritable bowel syndrome is not. On the other hand, it has been reported that women with dyspepsia present scores of physical and mental well-being lower than men with the same condition (Westbrook, Talley & Westbrook, 2002). Some studies also reported that patients with functional dyspepsia have lower quality of life, when compared with the general population (Chang, 2004).

According to the Roma II criteria, dyspepsia is mainly divided into the following types: organic dyspepsia and functional dyspepsia (Drossman et al., 2000). This study aimed to assess the quality of life in patients with organic and functional dyspepsia.

METHOD

In the present study, the quality of life of patients with organic and functional dyspepsia is compared against a baseline data of a randomized clinical trial. Patients were recruited at University Hospital São Francisco de Paula (Pelotas, Southern Brazil) between March, 2001 and March, 2002.

The diagnosis of dyspepsia was based on the Roma II criteria (Drossman et al., 2000). Organic dyspepsia refers to those with an identified cause for the symptoms while functional dyspepsia is defined by the absence of an organic disease which is likely to explain the symptoms. Also the pain is not relieved by defecation nor is it associated with the onset of a change in stool frequency or stool form; persistent or recurrent symptoms (pain or discomfort centered in the upper abdomen) last for at least 12 weeks, not necessarily consecutive, in the preceding 12 months. Only the results of subjects aged between 18 and 65 years who were living in the urban area of Pelotas, and who consented to participate, are included in this study.

Participants

A total of 348 subjects were identified, of which 125 suffered from functional dyspepsia and 223 from organic dyspepsia. Concerning the distribution of some baseline characteristics, groups were similar with respect to age, educational level, marital status and income, whereas the proportion of females was higher among patients with functional dyspepsia (72.0%) than organic dyspepsia (58.3%). This difference was statistically significant ($p < 0.05$).

Material

Subjects answered a self-report questionnaire on socio-demographic characteristics. The Medical Outcomes Survey Short-form General Health Survey SF-36 was used to evaluate the quality of life. The SF-36 comprises the following domains: physical functioning, role-physical, bodily pain, general health, vitality, social functioning, role-emotional and mental health.

A Chi-square test was used to compare proportions, whereas a t test was applied to the comparisons between means of quality of life. Analyses were stratified according to gender.

RESULTS

Patients with functional dyspepsia scored lower in the following quality of life domains: role-emotional (-19.35 IC95% -26.10 to -12.60) and mental health (-6.14 IC95% -10.86 to -1.42). After stratifying the data according to gender, women with functional dyspepsia presented lower quality of life in the role-emotional (-22.14 IC95% -30.80 to -13.49) and mental health (-8.52 IC95% -14.23 to -2.81) domains. For male, role-emotional was also lower among subjects with functional dyspepsia (-12.39 IC95% -24.58 to -0.20). On the other hand, those male with functional dyspepsia had quality of life scores significantly higher than those who presented organic dyspepsia in physical functioning (13.41 IC95% 4.40 to 22.43) and bodily pain (11.49 IC95% 1.47 to 21.52) (Table 1).

Table 1 - Comparison of quality of life among types of dyspepsia of the total population and stratified by gender. Values below are averaged.

Domain/Quality of life	Functional Dyspepsia (SD)	Organic Dyspepsia (SD)	Means Differences (CI 95%)	p-value
Total Population	n = 125	n = 223		
Physical Functioning	70.05 (26.01)	67.70 (26.48)	2.34 (-3.42 to 8.10)	0.42
Role-Physical	52.88 (41.67)	49.77 (41.12)	3.11 (-6.02 to 12.23)	0.50
Bodily Pain	50.98 (24.32)	49.92 (23.03)	2.67 (-4.20 to 6.30)	0.69
General Health	60.04 (24.09)	57.20 (24.01)	2.84 (-2.64 to 8.13)	0.29
Vitality	49.96 (24.95)	52.23 (23.83)	-2.27 (-7.68 to 3.13)	0.40
Social Functioning	64.86 (22.63)	67.00 (24.06)	-2.14 (-7.23 to 2.95)	0.40
Role-Emotional	43.94 (34.93)	63.29 (28.10)	-19.35 (-26.10 to -12.60)	0.0001
Mental Health	47.02 (21.13)	53.16 (22.05)	-6.14 (-10.86 to -1.42)	0.01
Female Gender	n = 90	n = 130		
Physical Functioning	65.31 (26.25)	66.91 (26.44)	-1.60 (-8.72 to 5.53)	0.65
Role-Physical	51.81 (41.67)	49.44 (40.45)	2.37 (-8.69 to 13.44)	0.67

Table 1 (Cont.) - Comparison of quality of life among types of dyspepsia of the total population and stratified by gender. Values below are averaged.

Domain/Quality of life	Functional Dyspepsia (SD)	Organic Dyspepsia (SD)	Means Differences (CI 95%)	p-value
Female Gender	n = 90	n = 130		
Bodily Pain	46.66 (21.89)	49.45 (21.59)	-2.79 (-8.66 to 3.08)	0.35
General Health	57.49 (25.38)	54.99 (24.28)	2.50 (-4.19 to 9.18)	0.46
Vitality	45.24 (23.35)	50.18 (24.53)	-4.93 (-11.43 to 1.57)	0.13
Social Functioning	62.97 (22.58)	65.92 (23.34)	-2.95 (-9.17 to 3.28)	0.35
Role-Emotional	41.33 (35.02)	63.48 (26.95)	-22.14 (-30.80 to -13.49)	0.0001
Mental Health	44.16 (19.70)	52.68 (22.08)	-8.52 (-14.23 to -2.81)	0.004
Male Gender	n = 35	n = 93		
Physical Functioning	82.23 (21.22)	68.82 (26.63)	13.41 (4.40 to 22.43)	0.004
Role-Physical	55.63 (42.17)	50.24 (42.25)	5.39 (-11.18 to 22.96)	0.52
Bodily Pain	62.09 (26.95)	50.59 (25.00)	11.49 (1.47 to 21.52)	0.02
General Health	66.60 (19.21)	60.29 (23.40)	6.31 (-246 to 15.08)	0.15
Vitality	62.09 (25.18)	55.11 (22.64)	6.98 (-2.19 to 16.14)	0.13
Social Functioning	69.71 (22.35)	68.51 (25.09)	1.21 (-8.36 to 10.78)	0.80
Role-Emotional	50.63 (34.30)	63.02 (29.78)	-12.39 (-24.58 to -0.20)	0.04
Mental Health	54.40 (23.12)	53.84 (22.11)	0.56 (-8.22 to 9.35)	0.90

Note: \bar{n} = number of person in each group; CI 95% = confidence interval of 95%

DISCUSSION

In this study, patients with functional dyspepsia presented a significantly lower quality of life than those with organic dyspepsia in mental health and role-emotional domains. After stratified analysis, the impact of functional dyspepsia is supported by emotional aspects of the quality of life in both genders. Dotewall (1994) proposed that functional dyspepsia is a multi-factorial psychosomatic disorder.

Regarding gender differences, a study with dyspeptic patients concluded that women presented lower physical and mental well-being scores than men whilst this difference was not found on the non-dyspeptic population (Westbrook, et al. 2002). With respect to the increased risk of functional dyspepsia among women, other studies have reported similar findings (Enck, Dubois & Marquis, 1999; Frank et. al., 2000). A conceivable explanation for these inequalities could be due to the prevalence of different symptoms reported by men and women with dyspepsia.

In the Westbrook, et al (2002) study just nausea and the high number of dyspeptics symptoms had negative effects, on both genders to physical and mental well-being. The same research indicates that a larger prevalence of nausea in women might have contributed to lower scores of females. Further, it reveals the association of symptoms with mental well-being in both genders. However, no conclusive data was found that could explain the gender related differences in quality of life.

Among men, those with functional dyspepsia scored higher in physical functioning and bodily pain domains than those with organic dyspepsia. As opposed to the women results, in men no clear relationship between dyspepsia diagnoses and mental health were observed. Despite the lack of literature focusing on the relationship between quality of life and dyspepsia subtype, Biggs et al. (2004) observed similar predictors of quality of life for patients with functional diagnoses (functional dyspepsia and non-cardiac chest pain) and organic (gastro-esophageal reflux disease or ischemic heart disease).

It is known that risk factors that affect dyspepsia can include gastrointestinal and psychosocial aspects, which tend to be interconnected (Chang, 2004). More studies are required in order to investigate the influences of the psychological aspects on dyspepsia, its interaction with the gastrointestinal factors and the quality of patient's life.

Therefore, these results highlight the need for further research on the emotional aspects in dyspepsia treatment, especially in women with functional dyspepsia. Then, strategies of emotional attention could be designed so as to assist this population in public health programs.

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