

Impaired quality of life in Chagas achalasia patients and associated clinical factors

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ABSTRACT – Background – No study has focused on Health-Related Quality of Life (HRQoL) for Chagas Achalasia patients. **Objective** – To compare HRQoL between Chagas Achalasia patients and the general population; and to correlate HRQoL with clinical factors that can affect it. **Methods** – Sixty Chagas Achalasia patients and 50 controls were evaluated. All patients underwent esophageal manometry for the diagnosis of achalasia and esophagogram to determine the grade of megaesophagus. Three questionnaires were used: 1) clinical: the following data were collected: demographic, medical history, body mass index, occurrence of six esophageal symptoms (Esophageal Symptom Score: number of symptoms reported by patients), duration of dysphagia; 2) socio-economic-cultural status evaluation: patients and controls answered seven questions about their socio-economic-cultural conditions; 3) HRQoL: the validated Brazilian-Portuguese version of the Short-form Health Survey (SF-36) questionnaire (license QM020039) was used. It measures health in eight domains: 3a) four physical: physical functioning, role limitations relating to physical health, bodily pain, and general health perception; 3b) four mental: vitality, social functioning, role limitations relating to emotional health, and mental health. These domains can be summarized into Physical and Mental Summary scores. We analyzed correlations between SF-36 Physical/Mental Summary Component scores and the following clinical factors: Esophageal Symptom Score, duration of dysphagia, body mass index, grades of megaesophagus (defined by the esophagogram) and presence/absence of megacolon (defined by opaque enema). **Results** – Patients and controls had similar age, gender, medical history, and socio-economic-cultural lifestyles ($P>0.05$). All patients had dysphagia and megaesophagus. SF-36 scores were significantly lower in Chagas Achalasia patients than controls for all eight domains (physicals: $P<0.002$; mental: $P<0.0027$). The Physical and Mental Summary Component scores were also lower in Chagas Achalasia patients than controls ($P<0.0062$). For patients, the Physical Summary score was negatively correlated to Esophageal Symptom Score ($P=0.0011$) and positively correlated to body mass index ($P=0.02$). No other correlations were found. **Conclusion** – Chagas Achalasia patients have an impaired HRQoL in all physical and mental domains. Patients reporting more symptoms had worse physical domains. Patients with higher body mass index had better physical domains.

Keywords – Achalasia; Chagas disease; health-related quality of life; dysphagia; megaesophagus; SF-36 Questionnaire.

INTRODUCTION

Chagas is a chronic disease caused by an infection from the flagellated protozoan *Trypanosoma cruzi* and affects millions of people in Latin America⁽¹⁾.

The pathology of the disease in the gastrointestinal (GI) tract is the loss of the myenteric plexus that may involve the entire GI tract^(2,3). The esophagus and colon are the most frequently injured areas^(2,3). The esophageal manifestations of the disease are very similar⁽⁴⁻⁷⁾, although not completely equal, to those of Idiopathic Achalasia^(8,9). Manometry shows incomplete or absent relaxation of the lower esophageal sphincter (LES) and simultaneous contractions in the esophageal body^(4,5,10). Esophagogram reveals esophageal retention, with esophageal dilatation in more advanced cases^(4,5,11). A variety of esophageal symptoms have been reported by patients with Chagas Achalasia (ChA), but dysphagia and regurgitation are the most frequent^(4,5).

Health-Related Quality of Life (HRQoL) is defined as “the extent to which one’s usual or expected physical, emotional and social well-being are affected by a medical condition or its treatment”⁽¹²⁾. Questionnaires have been used to evaluate patient’s perception about their state of health and are recognized as an important parameter for assessing health outcome in several chronic diseases^(13,14). These questionnaires can be classified as disease specific or generic^(13,14).

Studies evaluating HRQoL in patients with Chagas disease and its associated factors are scarce⁽¹⁵⁻¹⁸⁾. Some studies evaluated the HRQoL in Chagas disease with both heart and GI injuries⁽¹⁵⁾, while others evaluated HRQoL in patients with only Chagas heart disease⁽¹⁶⁻¹⁸⁾. No studies related to HRQoL were found that specifically focused on patients with ChA.

The aim of our study was to compare HRQoL between patients with ChA and the general population. We also evaluated the correlation between patients’ SF-36 Summary Component scores and clinical factors that can affect their HRQoL.

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METHODS

Subjects

This study was approved by the local Human Research Ethics Committee. All patients and controls provided written informed consent to participate in the study after receiving information about the goals and procedures.

Controls

The control group included 50 subjects. They were randomly selected from companions of patients from different clinics at our University Hospital, under the assumption they had a similar socio-economic-cultural lifestyle to the Chagas' patients.

Patients

The patients group included 60 subjects with Chagas achalasia. All of them had an epidemiology and a positive serological test (immunofluorescence) for Chagas disease. They had follow-ups in our GI Motility Clinic as well as in the Chagas Cardiology Clinic at the University Hospital. They underwent the appropriate cardiovascular exams to evaluate the presence/absence of Chagas heart disease⁽¹⁷⁾.

All patients underwent an esophageal manometry for the diagnosis of achalasia. The test was performed as previously described in other studies^(9,19,20). They also underwent an upper GI endoscopy to discard organic esophageal obstructions, had an opaque enema to diagnosis Chagas megacolon, and had blood tests.

All patients underwent an esophagogram to determine the grade of megaesophagus, using the radiographic examination method routinely used in Brazil^(4,5,11,19). In this examination, an anteroposterior radiograph is obtained at the same distance, at 20 seconds, 1 minute, 5 minutes and 30 minutes after the patients swallowed a standardized amount of barium sulfate. The result is considered normal if the radiography shows no barium in the esophagus at 20 seconds. In Grade I esophagopathy, there is retention of barium sulfate at 20 seconds but the esophageal diameter is less than 4 cm. In Grade II, there is esophageal retention and the esophageal diameter is between 4 and 7 cm. In Grade III, the esophagus diameter is between 7 and 10 cm. In Grade IV, the esophagus diameter is more than 10 cm.

Questionnaires

Four interviewers (GI fellows) were trained to give a uniform interrogation with three questionnaires in face-to-face interviews. Patients and controls answered all three questionnaires (clinical, socio-economic-cultural status, and HRQoL).

Clinical evaluation

This questionnaire collected demographic data (gender, age, city of birth) and medical history (associated illnesses, use of continuous medication, past GI surgeries) for controls and patients.

Esophageal symptoms were evaluated for patients only. All patients were asked about the occurrence of the following six symptoms: dysphagia, odynophagia, globus, chest pain, heartburn and regurgitation. Based on the patient's answers for the presence/absence of these symptoms, we defined an Esophageal Symptom Score as the number of symptoms reported by each patient. Patients were also asked about the duration of dysphagia. We presented these data as follow: dysphagia's duration less than 5 years, 5 to less than 10 years, 10 to less than 20 years, 20 or more years.

We collected the weight and the height data from the patients' files to calculate body mass index (BMI). We considered values lower than 18.50 as underweight, values between 18.50–24.99 as normal, values between 25.00–29.99 as overweight, and values higher than 30.00 as obese⁽¹⁷⁾.

Additional clinical data was collected from the patients' file as previous intervention for ChA treatment and the cardiologist evaluation. We also collected from their file: the results of blood tests (serological test for Chagas disease, creatinine, glycaemia, and thyroid function), upper GI endoscopy, and opaque enema.

Socio-economic-cultural evaluation

In this questionnaire, the interviewers asked patients and controls seven questions about their socio-economic-cultural conditions.

Data regarding race, marital status, schooling, social security situation, family income, per capita income, and profession were obtained. Race was self-reported and classified as Caucasian, African descent, Asian descent or multi-racial. Marital status was classified as married, single, widowed or divorced. Schooling was categorized based on the number of years of formal education: ≤ 5 years, > 5 to 9 years and > 9 years. The social security situation was classified as active workers, retirees, and pensioners. Family income was considered as the sum of income from each resident in the same domicile and was classified as $\leq 2x$ minimum wage, $> 2x$ to $6x$ minimum wage, and $> 6x$ minimum wage. The per capita income was obtained by dividing family income by the number of residents and was classified as $\leq 2x$ minimum wage, $> 2x$ to $6x$ minimum wage, and $> 6x$ minimum wage.

HRQoL evaluation

The HRQoL assessment was performed using the validated Brazilian-Portuguese version of the Short-Form Health Survey (SF-36) questionnaire⁽²¹⁾, a generic instrument composed of 36 questions. It measures health in eight domains:

- Four physical domains: physical functioning, role limitations relating to physical health, bodily pain, general health perception.
- Four mental domains: vitality, social functioning, role limitations relating to emotional health, mental health.

The SF-36 domain scores for each patient were calculated using the computer program licensed from Optum Insight Life Sciences, Inc. (license QM020039). The calculation was based on patients' answers for each of the 36 questions and then transformed into a number. A final score ranging from 0 (indicating the worst health status) to 100 (indicating the best health status) was assigned for each patient domain.

The computer program can also summarize the domain scores into a Physical Summary Component score and a Mental Summary Component score for each patient⁽²¹⁾. For these two summary scales, a score below 50 reflects a worse HRQoL compared to the average of the general Brazilian population⁽²¹⁾.

Statistical analysis

The Fisher Exact test was used to compare the gender data between ChA patients and controls.

The χ^2 test for K independent samples was used to compare the socio-economic-cultural variables between ChA patients and controls. Profession and medical history were presented as descriptive data for both groups.

The Mann-Whitney test was used to compare the age between ChA patients and controls. This test was also used to compare the eight domain's SF-36 questionnaire scores as well as the Physical Summary Component and The Mental Summary Component scores between both groups.

The Spearman Coefficient test was used to evaluate correlations between clinical factors and HRQoL in ChA patients. We analyzed correlations between the SF-36 Physical/Mental Summary Component scores and Esophageal Symptoms Scores, duration of dysphagia, BMI, grades of megaesophagus (defined by the esophagogram), and patients with/without megacolon. For the megacolon analysis, we coded an ordinal number for patients without megacolon (number "1") and with megacolon (number "2").

A *P* value ≤ 0.05 was considered statistically significant.

RESULTS

Clinical evaluation

The control group had 35 (70%) females with median age of 58.0 years (range: 34–78 years). The ChA group had 42 (70%) females with median age of 60.0 years (range: 31–82 years). There were no differences between the two groups related to gender ($P=0.1642$) and age ($P=0.1601$).

The medical history was similar in both groups. Eighteen (36%) controls had light high blood pressure well managed with hydrochlorothiazide and enalapril. Five (10%) controls had type II diabetes mellitus well managed with metformin. In the ChA group, 25 (42%) patients had light high blood pressure well managed with hydrochlorothiazide and enalapril. Four (6.6%) patients had type II diabetes mellitus well managed with metformin. None of the subjects had GI surgeries.

Patients

None of the patients underwent any treatment for the management of ChA prior to this study.

All ChA patients (100%) reported dysphagia as a symptom. The other esophageal symptoms reported by patients were heartburn (57%), regurgitation (53%), chest pain (53%), globus (42%), and odynophagia (35%). TABLE 1 shows the data for Esophageal Symptom Score observed in the ChA group.

A large number of our ChA patients (43%) reported less than five years of dysphagia's duration. The range of this parameter was 1 to 30 years (median=5 years). TABLE 1 shows the categorized data related to this parameter.

The majority of our ChA patients (95%) were normal or overweight. TABLE 1 shows their BMI categorized data.

Thirty-six (60%) ChA patients did not have Chagas heart disease, while 24 (40%) had Class I Chagas heart disease based on the Goldman scale functional classification (patients with no limitation to physical activities and absence of symptoms)⁽²²⁾.

All ChA patients had normal plasma levels for creatinine, glycaemia, and thyroid function. Their upper GI endoscopy showed no organic esophageal obstructions.

The esophageal manometry showed an absence of LES relaxation and low amplitude, simultaneous contractions in the esophageal body for all patients, characterizing Chagas achalasia^(4,5,10).

The barium radiographic examination results (esophagogram and opaque enema) are shown in TABLE 2. All ChA patients had megaesophagus, 44 (73%) were Grade I. Only 14 (23%) had associated megacolon.

TABLE 1. Clinical features of 60 patients with Chagas Achalasia.

Clinical features	ChA patients (n=60) n (%)
ESS	
1	8 (14%)
2	11 (18%)
3	13 (22%)
4	12 (20%)
5	11 (18%)
6	5 (8%)
Duration of dysphagia (years)	
<5	26 (43%)
5–<10	15 (25%)
10–<20	15 (25%)
>=20	4 (7%)
BMI	
Underweight	3 (5%)
Normal	20 (34%)
Overweight	23 (38%)
Obese	14 (23%)

ESS: Esophageal Symptom Score (the number of esophageal symptoms, out of six, reported by patients); ChA: Chagas Achalasia; BMI: body mass index; n: number of patients; (%): percentage of total patients.

TABLE 2. Esophageal and colon barium radiographic examinations of 60 patients with Chagas Achalasia.

Barium radiographic examinations	ChA patients (n=60) n (%)
Esophagogram-Megaesophagus	
Grade I	44 (73%)
Grade II	13 (22%)
Grade III	3 (5%)
Grade IV	0 (0%)
Opaque enema-Megacolon	
With megacolon	14 (23%)
Without megacolon	46 (77%)

ChA: Chagas Achalasia; n: number of patients; (%): percentage of the total patients.

Socio-economic-cultural evaluation

There were no significant differences between both groups for any of the socio-economic-cultural parameters evaluated. Regarding: 1) race: Caucasian was the most frequent self-reported in both groups (controls=62% vs ChA patients=52%; $P=0.48$); 2) marital status: married was the most frequent in both groups (controls=70% vs ChA patients=52%, $P=0.19$); 3) schooling: ≤ 5 years was the most frequent in both groups (controls=72% vs ChA patients=85%, $P=0.11$); 4) social security situation: active workers was the most frequent in both groups (controls=48% vs ChA patients=40%, $P=0.22$); 5) family income: $\leq 2x$ minimum wage was the most frequent in both groups (controls=56% vs ChA patients=57%, $P=1.00$); 6) per capita income: $\leq 2x$ minimum wage was the most frequent in both groups (controls=78% vs ChA patients=82%, $P=0.64$).

Regarding profession, housewife was the most frequent in both groups (controls=22% vs ChA patients=28%), followed by housekeeper (controls=18% vs ChA patients=22%), bricklayer (controls=18% vs ChA patients=13%), farm worker (controls=15% vs ChA patients=13%), and various others (controls=27% vs ChA patients=24%).

HRQoL evaluation

SF-36 scores were significantly lower in ChA patients than controls for all eight physical and mental domains as well as for the Physical Summary Component and the Mental Summary Component scores (TABLE 3).

Correlation analysis

TABLE 4 shows the results of correlation analysis for clinical factors that can affect HRQoL in the ChA group. We analyzed correlations between SF-36 Physical/Mental Summary Component scores and Esophageal Symptom Scores, duration of dysphagia, BMI, grades of megaesophagus (defined by the esophagogram) and presence/absence of megacolon (defined by opaque enema).

For ChA patients, the SF-36 Physical Summary Component score was negatively correlated with the Esophageal Symptom Scores ($P=0.0011$) and positively correlated with the BMI ($P=0.02$). No other correlations were found (TABLE 4).

DISCUSSION

The main findings of this study can be summarized with the following points: 1) ChA patients have a worse HRQoL than controls in all physical and mental domains; 2) for patients, the physical summary domain scores are negatively correlated with the number of their esophageal symptoms and positively correlated with their BMI.

Reports in the literature indicate that HRQoL is worse for patients with Chagas disease^(15-28,23). No HRQoL study was found that specifically focused on patients with ChA. Some evaluated HRQoL in Chagas patients with both heart and GI forms of the disease (mixed form) or patients who only had Chagas heart conditions, specifically those with pacemakers, heart failure, or pre- and post- treatments⁽¹⁵⁻¹⁸⁾. Ozaki et al.⁽²⁴⁾, compared Chagas patients who only had digestive presentations with Chagas patients who only had heart conditions. They observed that patients with the digestive disease had lower scores in all HRQoL domains than those with the heart disease.

The esophageal manifestations of ChA are very similar⁽⁴⁻⁷⁾, although not completely equal^(8,9) to those of Idiopathic Achalasia. A systematic review concluded, similar to our study in ChA, that Idiopathic Achalasia significantly affects patients' quality of life⁽²⁵⁾. Other studies evaluated HRQoL in Idiopathic Achalasia on dif-

TABLE 3. Health-related Quality of Life (HRQoL) for 50 controls and 60 patients with Chagas Achalasia.

	Controls (n=50) med (r)	ChA patients (n=60) med (r)	P values
SF-36 physical domains			
physical functioning	90.0 (15.0–100.0)	70.0 (0.0–100.0)	0.0007*
role limitations relating to physical health	100.0 (37.5–100.0)	68.7 (12.5–100.0)	0.0017*
bodily pain	72.0 (10.0–100.0)	51.0 (0.0–100.0)	0.0013*
general health perception	80.0 (10.0–100.0)	65.0 (20.0–100.0)	0.002*
Physical Summary Component	52.0 (25.0–63.9)	47.5 (20.4–61.2)	0.0062*
SF-36 mental domains			
vitality	75.0 (18.7–100.0)	60.0 (12.5–100.0)	0.0027*
social functioning	100.0 (25.0–100.0)	62.5 (12.5–100.0)	<0.0001*
role limitations relating to emotional health	100.0 (25.0–100.0)	79.1 (33.3–100.0)	0.0019*
mental health	80.0 (15.0–100.0)	60.0 (12.5–100.0)	<0.0001*
Mental Summary Component	55.6 (32.2–65.2)	42.2 (13.4–63.7)	<0.0001*

SF-36: Medical Outcome Study 36-item Short Form; ChA: Chagas Achalasia; n: number of patients; med: median; r: range; *statistically significant ($P<=0.05$)-Mann-Whitney test.

TABLE 4. Correlation analysis between SF-36 Summary Component scores and clinical factors that can affect Health Related Quality of Life in 60 patients with Chagas Achalasia.

SF-36 Summary Component scores	ESS rs P	Duration of dysphagia rs P	BMI rs P	Grade of Megaesophagus rs P	ChA patients with/without Megacolon rs P
Physical	-0.3891 0.0011*	-0.1150 0.1908	0.2652 0.0200*	0.0163 0.4506	0.0796 0.2726
Mental	-0.1444 0.1355	-0.0499 0.3524	0.0240 0.4275	-0.1806 0.0800	-0.1138 0.1934

SF-36: Medical Outcome Study 36-item Short Form; ESS: Esophageal Symptom Score (the number of esophageal symptoms, out of six, reported by patients); BMI: body mass index; ChA: Chagas Achalasia; rs: Spearman Coefficient; *statistically significant ($P<=0.05$).

ferent physiological conditions and pre- and post- treatments⁽²⁶⁻³⁰⁾. None of these studies that evaluated HRQoL in Idiopathic Achalasia are from the Brazilian population. It would have been interesting if we also evaluated a group of Idiopathic Achalasia patients in our study. However, we have the limitation of a small number of patients with this condition in our GI Motility Clinic. Multicenter studies in Brazil may need to overcome this issue.

A variety of different instruments were used in the studies of HRQoL in Chagas disease and in Idiopathic Achalasia. Some studies used a non-validated instrument⁽²³⁾, while others used a generic validated instruments such as the WHOQoL or the SF-36^(15-18,27-30). Others used a specific instrument Measure of Achalasia Disease Severity (ADS), a validated questionnaire assessing the severity of Idiopathic Achalasia-associated to HRQoL^(26,31). In our study we used the generic questionnaire SF-36. This is a well-known, widely used, and easy to fill out questionnaire which has a validated Brazilian-Portuguese version⁽²¹⁾. This questionnaire does not evaluate the environmental domain, which is considered a relevant determinant of HRQoL. However, we used a socio-economic-cultural questionnaire to cover this aspect. There is a meta-analysis study concluding that there is no superiority between the instruments. Their application will depend on the goals of each research⁽³²⁾. Our focus was to evaluate the influence of some clinical factors on ChA patients' HRQoL. Then, we recruited controls and patients from a similar socio-economic-cultural lifestyle population. It is probably the reason that there were no differences between both groups related to this aspect. In both groups, the majority of subjects were Caucasian, married, actively working with a few years of schooling, which restricts their access to higher paying jobs, resulting in a lower family and per capita income. We did observe low scores in SF-36 domains for ChA patients and some subjects in our control group. This may be due to the fact that both groups had a low socio-economic-cultural lifestyle. It is known that economic vulnerability associated with poverty, can affect HRQoL⁽³³⁾. Even so, in our study, the ChA group had significantly lower scores than the control group for all eight SF-36 domains, showing that other factors besides environment may affect their HRQoL.

It is known that the HRQoL is affected by various clinical parameters such as age, gender, and medical history of chronic disease (including Chagas heart disease)⁽³³⁾. Regarding age and gender, the statistical analysis of our data did not show differences between ChA group and the control group. Both were predominantly female with median age around 60 years old. The medical history of chronic diseases was also very similar in both groups. There was a very similar percentage of ChA patients and controls with diabetes mellitus and light high blood pressure. All of them had well controlled chronic diseases. We also included in our study patients with Chagas heart disease (40%). However, all of them had Class I on the Goldman scale functional classification (patients with no limitation to physical activities and absence of symptoms). So, we believe that the chronic diseases, including Chagas heart disease, had no influence in our HRQoL results.

Other clinical factors can be considered intuitively associated with HRQoL in ChA patients such as number of esophageal symptoms, duration of their main symptom (dysphagia), BMI, grades of megaesophagus (determined by esophagogram), and the presence/absence of megacolon. So, we analyzed correlations between these factors and the SF-36 Physical/Mental Summary Component scores.

We observed that the frequency of esophageal symptoms is a

clinical factor related to physical impaired HRQoL in our ChA patients. The more symptoms patients reported, the worse their physical HRQoL. The majority (68%) of our patients were very symptomatic, reporting three or more (out of six) esophageal symptoms (TABLE 1). Studies in Idiopathic Achalasia have been using the Eckardt score to evaluate the clinical severity of the Achalasia^(31,34). This score includes three esophageal symptoms (dysphagia, regurgitation and chest pain). However, we found that three other esophageal symptoms (odynophagia, globus and heartburn) were frequently reported by our ChA patients. So, we decided to include these other symptoms and use the Esophageal Symptom Score.

All our ChA patients reported dysphagia as a symptom. It is intuitive to think that longer duration of this symptom would impair their HRQoL. However, there is no correlation between SF-36 Physical or Mental Summary Component scores with the duration of dysphagia reported by our patients. It may be due to the fact we had a large number of patients (43%) reporting a short duration time of dysphagia (less than 5 years).

The majority of our ChA patients were normal or overweight. The correlation analysis showed that BMI is a factor related to the physical HRQoL in our ChA patients. The higher the patient's BMI, the better their physical HRQoL. Other studies also observed in Chagas patients that BMI was positively correlated to HRQoL^(15,17).

The Grade of megaesophagus is not a factor related to the SF-36 Physical or Mental Summary Component scores in our ChA patients. This is a counterintuitive find. However, similar to our study, Ross et al.⁽²⁶⁾ using the ADS instrument to evaluate HRQoL in Idiopathic Achalasia, observed that the ADS scores were not correlated with timed barium esophagogram column height or width at 1 and 5 minutes. Also, there were no differences between ADS scores for patients who could pass a 13 mm barium tablet and those who could not. The findings of the esophagogram in patients with achalasia may not reflect their reported esophageal symptoms and may not affect their HRQoL. Recently, Oliveira et al.⁽³⁵⁾ did not find a correlation between Grades of megaesophagus (by esophagogram) and frequency of esophageal symptoms nor the intensity of dysphagia in ChA patients. Laurindo-Neto et al.⁽³⁴⁾ observed that Chagas as well as Idiopathic Achalasia patients reported several esophageal symptoms even in early stages of the disease. The majority of our ChA patients had Grade I Megaesophagus (73%) and were normal or overweight (95%), suggesting that the majority had no advanced megaesophagus. Even so, they were very symptomatic and had impaired HRQoL in all SF-36 physical and mental domains.

It is also counterintuitive to find a lack of correlation between presence/absence of megacolon and SF-36 Physical or Mental Summary Component scores in our ChA patients. It may be due to the fact that a small number of our patients (23%) had megacolon.

CONCLUSION

ChA patients have a worse HRQoL than controls in all SF-36 physical and mental domains. The number of esophageal symptoms reported by ChA patients is a factor associated with their impaired HRQoL. The more symptoms patients reported, the worse their physical HRQoL.

The identification of HRQoL for ChA patients and the most impaired domains, as well as the identification of the associated clinical factors to the worse domains, are very important in the development of more appropriate strategies to improve patients' physical and mental health.

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Authors' contribution

Rosa-e-Silva L: conceived, designed and directed the study, analyzed and interpreted the data, wrote the manuscript, made the decision to submit for publication. Pontes RMA: made substantial contributions to the conception, design, and data analysis of the study. She also provided critical feedback to the final manuscript and gave final approval of the version to be submitted. Vendrame GLM: made substantial contributions to the acquisition of data, provided critical feedback to the final manuscript, and gave final approval of the version to be submitted. Xavier FAL: made sub-

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RESUMO – Contexto – Não encontramos na literatura estudos sobre a qualidade de vida em pacientes com acalásia chagásica especificamente. **Objetivo** – Comparar a qualidade de vida de pacientes com acalásia chagásica e a da população em geral. Também, correlacionar a qualidade de vida nestes pacientes com fatores clínicos que possam afetá-la. **Métodos** – Estudamos 60 pacientes com acalásia chagásica e 50 controles. Todos os pacientes foram submetidos à manometria esofágica para diagnóstico de acalásia e esofagograma técnica padrão para determinar o grau do megaesôfago. Usamos 3 questionários: 1) clínico: foram coletados os seguintes dados: demográficos, história clínica, índice de massa corporal, presença de seis sintomas esofágicos (definimos Escore de Sintomas Esofágicos como o número de sintomas relatados pelos pacientes), duração da disfagia; 2) avaliação sócio-econômico-cultural: sete questões sobre as condições sócio-econômico-culturais foram perguntadas para pacientes e controles; 3) qualidade de vida: foi avaliada pelo questionário SF-36, versão validada para o português-Brasil (licença QM020039). Este é um questionário genérico que mede a qualidade de vida em oito domínios: 3a) quatro físicos: capacidade funcional, aspectos físicos, dor corporal, estado geral de saúde; 3b) quatro mentais: vitalidade, aspectos sociais, aspectos emocionais, saúde mental. Estes oito domínios podem ser compilados em dois escores: Sumário dos Escores Físicos e Sumário dos Escores Mentais. Na análise de fatores clínicos que pudessem afetar a qualidade de vida dos pacientes, avaliamos: escores de sintomas esofágicos, duração da disfagia, índice de massa corporal, grau de megaesôfago e presença/ausência de megacólon. **Resultados** – Os dois grupos (pacientes e controles) apresentaram semelhantes idade, gênero, história médica e condições socioeconômico-culturais ($P>0,05$). Todos os pacientes tinham disfagia e megaesôfago. Com relação à qualidade de vida, pacientes com acalásia chagásica apresentaram valores significativamente menores do que os controles em todos os domínios do questionário SF-36 (domínios físicos: $P<0,002$; domínios mentais: $P<0,0027$). Os Sumários dos Escores Físicos e Mentais também foram significativamente menores em pacientes do que nos controles ($P<0,0062$). A análise dos fatores clínicos que poderiam afetar a qualidade de vida nos pacientes mostrou que o Sumário dos Escores Físicos se correlaciona negativamente com o Escore Dos Sintomas Esofágicos ($P=0,0011$) e positivamente com o índice de massa corporal ($P=0,02$). Não observamos qualquer outra correlação. **Conclusão** – Pacientes com Acalásia Chagásica têm pior qualidade de vida que a população em geral, em todos os domínios físicos e mentais. Pacientes que relataram mais sintomas apresentaram pior qualidade de vida nos domínios físicos. Pacientes com valores maiores de índice de massa corporal apresentaram melhor qualidade de vida nos domínios físicos.

Palavras-chave – Acalásia; Doença de Chagas; qualidade de vida relacionada com saúde; disfagia; megaesôfago; Questionário SF-36.

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