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Dysphagia cases description at a specialized rehabilitation center in Alagoas

Descrição dos casos disfágicos atendidos em um centro especializado em reabilitação em Alagoas

Descripción de los casos disfágicos en atendimiento en un centro especializado en rehabilitación de Alagoas

Nilian Cerqueira Azevêdo[*]
Adriana Medeiros Melo[*]
Marisa Siqueira Brandão Canuto[*]

Abstract

Objectives: To describe the characteristics of dysphagia patients in speech therapy at a Specialized Rehabilitation Outpatient Program in Alagoas. **Methods**: A cross-sectional, descriptive and exploratory study was carried out, with quantitative descriptive analysis of medical records of patients in therapy in 2015 and 2016. Data were collected in a structured record, following as reference the Dysphagia Risk Evaluation Protocol (DREP). Chi-square test was used, considering 5% significance level. **Results:** 27 medical records were analyzed, 40,74% were adults, 55,56% were men, 47,08% were retired, 88,89% from the capital, with low schooling (37,04) and forwarded by neurologists (33,33%); 88,89% presented neurogenic dysphagia, 55,56% low-grade dysphagia; 29,63% were affected by chronic non progressive encephalopathy and 18,52% encephalic vascular accident, showing coexistent dysphagia signals and symptoms, being 88,89% cough and choking, 81,48% cough, 62,96% oral escape and 55,56% multiple swallowing; 51,85% showed complications associated with dysphagia; 77,78% did not use alternative feeding methods; 55,56% did only clinical evaluation for the dysphagia diagnosis; 66,67% never did speech therapy previously and 59,10% were able to establish oral feeding. It was found significance ($p \leq 0,0001$) between feeding method with dysphagia grade. **Conclusion:** It was possible to evidence a population

* Universidade Estadual de Ciências da Saúde de Alagoas – UNCISAL, Maceió, Alagoas, Brazil

Authors' contributions:
NCA participated in every step of the work, involving data gathering; result tabulation; analysis and text writing; AMM and MSBC oriented the research and participated in the review of all steps of the article.

Correspondence address: Nilian Cerqueira Azevêdo nilianazevedo@gmail.com
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with heterogeneous characteristics regarding socialdemographic and clinical findings, being possible to track information about characteristics showed by those patients, contributing positively to execute actions more directive and effective, providing a specialized and targeted looking to this population.

Keywords: Dysphagia; Speech therapy; Signs and symptoms; Epidemiology

Resumo

Objetivo: Descrever o perfil epidemiológico e correlacionar os aspectos sociodemográficos e clínicos de pacientes disfágicos em atendimento fonoaudiológico de um Centro Especializado em Reabilitação de Alagoas. **Métodos:** Estudo transversal, descritivo e exploratório, com análise quantitativa a partir de prontuários dos pacientes em atendimento nos anos de 2015 e 2016. Os dados foram coletados em ficha estruturada, seguindo como referência o Protocolo Fonoaudiológico de Avaliação do Risco para Disfagia. Foi utilizado o teste de Qui-quadrado, considerando nível de significância de 5%. **Resultados:** Foram analisados 27 prontuários, sendo 40,74% de adultos, 55,56% do gênero masculino, 47,08% aposentados, 88,89% provenientes da capital, com baixa escolaridade (37,04%) e encaminhados por neurologistas (33,33%); 88,89% apresentavam disfagia de origem neurogênica, 55,56% de grau leve; 29,63% foram acometidos por Encefalopatia Crônica Não Progressiva e 18,52% Acidente Vascular Encefálico, apresentando sinais e sintomas disfágicos coexistentes, sendo 88,89% correspondendo a engasgos, 81,48% tosse, 62,96% escape oral e 55,56% deglutições múltiplas; 51,85% apresentaram complicadores associados à disfagia. 77,78% não utilizavam via alternativa de alimentação; 55,56% realizaram somente avaliação clínica para o diagnóstico da disfagia; 66,67% nunca realizaram terapia fonoaudiológica anteriormente e 59,10% conseguiram estabelecer a alimentação por via oral. Foi encontrada significância ($p \leq 0,0001$) na relação da via de alimentação com o grau da disfagia. **Conclusão:** Foi possível evidenciar uma população com características heterogêneas, no que se refere aos achados sociodemográficos e clínicos, sendo possível traçar informações sobre as caraterísticas apresentadas por esses pacientes, contribuindo positivamente para a realização de ações mais diretivas e efetivas, proporcionando olhar especializado e direcionado a esta população.

Palavras-chave: Disfagia; Fonoterapia; Sinais e sintomas; Epidemiologia

Resumen

Objetivos: Describir el perfil epidemiológico y correlacionar los aspectos sociodemográficos y clínicos de los pacientes difásicos en atendimiento fonoaudiológico en un Centro Especializado en Rehabilitación de Alagoas. **Métodos:** Estudio trasversal, descriptivo y exploratorio, con análisis cuantitativa de las fichas clínicas de los pacientes en atendimiento en los años de 2015 y 2016. Los datos fueron recogidos en fichas estructuradas, según el Protocolo Fonoaudiológico de Evaluación del Riegos para la Disfagia. Fue utilizado el test Qui-quadrado, considerando el nivel del significancia del 5%. **Resultados:** Fueran analizados 27 fichas clínicas, donde 40,74% correspondía a adultos, 55,56% al género masculino, 47,08% a jubilados, 88,89% advenidos de la capital, con baja escolaridad (37,04%) y advenido por neurólogos (33,33%). Los 88,89% presentaba la disfagia de origen neurológica, 55,56% de grado leve; 29,63% acometidos por Encefalopatía Crónica no Evolutiva y 18,52% por Accidente Vascular Cerebral, presentando síntomas disfágicos coexistentes, donde 88,89% correspondía a atragantamiento, 81,48% tos, 62,96% escape oral y 55,56% degluciones múltiples; 51,85% presentan complicaciones asociadas a la disfagia; 77,78% no utilizan vía alternativa para alimentación; 55,56% realizaron la avaluación clínica para el diagnóstico de la disfagia; 66,67% nunca han realizado terapia fonoaudiológica anteriormente y 59,10% conseguirán restablecer la alimentación por la boca. Fue encontrada significancia ($p \leq 0,0001$) en la relación de la vía de la alimentación con el grado de la disfagia. **Conclusión:** Fue posible evidenciar una población con características heterogéneas, en lo que se refiere a los hallazgos sociodemográficos y clínicos. Es posible trazar informaciones sobre las características presentadas por esos pacientes, contribuyendo positivamente en la realización de acciones más directivas y efectivas, proporcionando atención especializada y dirigida a esta población.

Palabras clave: Disfagia; Fonoterapia; Signos y síntomas; Epidemiología

Introduction

Swallowing is a physiological, dynamic and complex process, composing of the actions of reflex, automatic and modifiable acts through motor and sensorial stimulation (volume and consistency of how the food bolus presents itself). In it, several functions are involved, structures and different levels of the central nervous system, with the objective of allowing a correct and efficient passage of the food bolus from the mouth to the stomach.[1,2]

Didactically, swallowing is divided in four phases: Oral Preparatory, Oral Transit, Pharyngeal and Esophageal.[1,3] The first two are characterized as voluntary actions, passive of interruption at any moment, while the last two are involuntary.[1,2]However, when there is a difficulty or an alteration (structural and/or neurologic) that interferes in the regular and effective transportation of food from the mouth to the stomach, the process is defined as Dysphagia.[1,4]

The literature defines Dysphagia as a difficulty in swallowing, which is produced by the passage of the food from the mouth to the stomach, reflecting in impediments to fulfill an efficient feeding process that provides all the nutritional and hidration needs, essencial to an adequate state of health. [2,5] Depending on the swallowing phase, Dysphagia can be classified as: Oral, Pharyngeal and Esophageal.[2,5,6,7,8] Concerning its etiology, it can be divided in: 1) Neurogenic, when caused by some present alteration of the central and/or peripheral nervous system[2,6,7] ; 2) Mechanical, when provoked by anatomic alterations of any kind[2,6]; 3) Psychogenic, associated with psychic and emotional desarray[2]; 4) Iatrogenic, characterized by the use of mind altering medication that can interfere with the individual's level of consciousness, and 5) Presbiphagia, which are the modifications in the swallowing function caused by aging, leaving the elderly patient inclining towards Dysphagia[2,9].

It's known that Dysphagia consists in a symptom that can occur in any moment of a lifetime.[10] In its main symptomatology, it's possible to find presence of nasal escape, coughing, choking, expectoration, multiple swallowing,[4,11] early oral escape, increase of oral transit, alterations in mobility and elevation of the larynx, loud cervical auscultation, altered vocal quality, residue of food in the oral cavity, cyanosis, denutrition and dehidration. [4,10,12,13]

Regarding the gravity of the symptoms, Dysphagia is classified, according to the Dysphagia Risk Evaluation Protocol (DREP), in: Functional Swallowing, Light Oropharyngeal Dysphagia, Light to Moderate Oropharyngeal Dysphagia, Moderate Oropharyngeal Dysphagia, Moderate to Severe Oropharyngeal Dysphagia and Severe Oropharyngeal Dysphagia.[12] When present and associated, the signs and symptoms of dysphagia can provoke an increase of complications and infections in the overall state of the patient, such as lung issues, demonstrations of denutrition and dehidration, forcing the individual to go through several prolonged hospitalizations.[4,6,14] These, when not treated, can contribute to the loss of feeding independency and autonomy of the patient, due to the resulting risks of the functional alteration, as well as, in many cases, leading to the death of the patient.[4,10,11] This makes necessary to execute early interventions, aiming an improvement of the main clinical picture, with the speech, language and hearing sciences therapist being responsible of evaluating the present alterations of the swallowing process as soon as possible and selecting the safest way of feeding.[6]

The Specialized Rehabilitation Centers (SRCs) are units for the specialized treatment of deficient patients who need rehabilitation, with the main goal of developing the physical and psychosocial potential of the individuals, offering them a full care under the logic of multiprofessional interdisciplinary assistance.[6]

This way, it is considered pertinent the knowledge of the epidemiological profile of patients who present a swallowing disturbance from a specialized center, with the regards of being an important instrument for the discovery of more efficient strategies of intervention and actions that promote clinial resolutivity.[15] The correlation of sociodemographical aspects and the clinical findings provides subsidies for plannings and more direct and effective interventions of these patients, favoring the objective of this work in describing and correlating the epidemiological profile, in what it refers to the sociodemographical and clinical aspects of those afflicted with Dysphagia under speech, language and hearing sciences therapy at a SRC in Alagoas.

Methods

This was conceived as a transversal, descriptive and exploratory study with quantitative analysis, which was analysed and approved by the Ethics

in Research board of the Health Science State University of Alagoas, registered under the number 1.941.497 and CAAE 56734416.0.0000.5011 to the Resolution 466, from December 12th, 2012.

As a data gathering method, the documental register of the medical record analysis was put to use. Also included, in the present study, medical charts of patients of both genders, who presented a speech-language dyagnosis of Dysphagia and who were going through therapy at the SRC in question in the years 2015 and 2016. All incomplete medical charts from patients were excluded, in the sense of those not having the accurate description of the manifestations of a Dysphagic clinical picture or the ones who were terminated from treatment before the beginning of data gathering. Thus, from the 40 medical charts initially chosen, 13 were discarded, for the reason of 12 being patients who were terminated from treatment before the beginning of data gathering in the referred speech-language rehabilitation unit and 1 referring to a patient who presented complaints about Dysphagia, but a clinical evaluation was discarded. Thus, the final test was composed of 27 medical records from patients who were approved according to the terms of consent.

For the extraction of infortmation from the medical charts, a structured form was used (figure 1) by the researchers, considering two main aspects: sociodemographic and clinic data of the individual. The first part of the form containing general identification and sociodemographic data of the patient, such as: age, gender, work activity, place of origin, scholarship and origin of referral.

As for the second part of the form, there was information about the clinical findings of the patient, searching for data referring to the etiology of the pathology, degree, signs and symptoms, factors associated to Dysphagia, presence of other associated pathologies, the use of an alternate way of feeding, undergoing of previous speech-language therapy and complementary exams, as well as an analysis of the current situation. With this in mind, an adaptation of the Dysphagia Risk Evaluation Protocol was made for the referred extraction of the clinical findings. DREP is a protocol easily found in other works, with a main objective of identifying and characterizing clinical signs, as well as the gravity of the Dysphagia.[16]

The data collected from the medical records were separately analysed to describe the characteristics of the population, further stored in the Excel 2010 databank, with the data analysis executed in a descriptive form, through absolute and percentage frequencies.

Besides the descriptive variables, in order to enrich the study, the Chi-Square test was used to compare proportions, being P equal or less than 0.05, with the Bioestat 5.0 statistic program being used as well. The correlated variables were: feeding path, referral origin and etiology of the Dysphagia, with the quantity of signs and symptoms presented by the patients and the degree of Dysphagia with the feeding path. The signs and symptoms were grouped into laryngeal (when presented in the laryngeal vestibule) and non- laryngeal (situated before or after the vocal folds), according to the anatomic region of impairment described in the records from performed exams and presented by the patients in the period of evaluation.

Results

In the sample of this study, considering the absolute and percentage frequencies, was evidenced that 55.56% (15/27) of the patients were male; 88.89% (24/27) provenient from the capital; 40.74% (11/27) in the adult age group of 20 – 59 years old, with maximum age of 81 years of age and minimum of 2 years of age . Concerning scholarship, the predominant group was of an incomplete elementary scholarship. In this context, the functional situation of these individuals is predominantly of retired people, corresponding to a percentage of 74.8% (19/27). [Figure 1].

Personal Data	
Application identification	
Age: ( ) 0-9 years: Child / ( ) 10-19 years: Teenager / ( ) 20-59: Adult / ( ) > 60 years: Elderly	
Gender: ( ) Male / ( ) Female	
Profession: ( ) Unemployed / ( ) Don't apply / ( ) Student / ( ) Employed / ( ) Retired	
Origin: ( ) Capital / ( ) Countryside	
Scholarship: ( ) Incomplete elementary school / ( ) Complete elementary school	
( ) Incomplete high school / ( ) Complete high school / ( ) Incomplete college degree	
( ) Complete college degree / ( ) Illiterate	
Referral origin: ( ) Neurologist / ( ) Pneumologist / ( ) Pediatrist	
( ) Phonoaudiologist / ( ) Occupational therapist / ( ) Otolaryngologist / ( ) Getriatician	
( ) Spontaneous demand / ( ) Physiotherapist	
DYSPHAGIA CLASSIFICATION	
Etiology: ( ) Psychogenic / ( ) Mechanical / ( ) Neurologic / ( ) Presbiphagia	
Degree: ( ) Light / ( ) Moderate / ( ) Severe / ( ) Functional	
SIGNS	
( ) Oral Escape	( ) Choking
( ) Nasal Reflux	( ) Loss of weight
( ) Multiple swallowing	( ) Dehidration
( ) Cyanosis	( ) Pneumonias
( ) Altered LQ	( ) Increase of oral transit
( ) Coughing	( ) Alteration of laryngeus mobility
( ) Auscultation	( ) Feeding stasis
ASSOCIATED RISK FACTORS	
( ) No	
( ) Yes, (dehidration, denutrition, repeated hospitalizations, use of depressant pharmaceuticals, repeated pneumonia episodes)	
ASSOCIATED PATHOLOGIES	
( ) Parkinson	( ) Syndromes
( ) ALS	( ) Chronic non-progressive encefalopathy
( ) Multiple sclerosis	( ) Meningitis
( ) AVE	( ) Tumor
( ) Gravis Miastenia	( ) Presbiphagia
( ) CA of head and neck	

Adaptation created from the Dysphagia Risk Evaluation Protocol - DREP (PADOVANI et al, 2007)

Figure 1. Data gathering application

Table 1. Sociodemographic findings in patients with dysphagia who undergone treatment in a specialized rehabilitation center in Alagoas

VARIABLES	N	%
GENDER		
Male	15	55,56
Female	12	44,44
AGE		
Child (0-9 years old)	7	25,93
Teenager (10-19 years old)	3	11,11
Adult (20-59 years old)	11	40,74
Elderly (≥ 60 years old)	6	22,22
ORIGIN		
Capital	24	88,89
Countryside	3	11,11
SCHOLARSHIP		
Illiterate	8	29,63
Incomplete elementary school	10	37,04
Complete elementary school	2	7,41
Incomplete high school	4	14,81
Complete high school	2	7,41
Incomplete college degree	0	0
Complete college degree	1	3,70
FUNCTIONAL SITUATION		
Unemployed	2	7,41
Student	4	14,81
Employed	1	3,70
Retired	20	47,08
REFERRAL ORDER		
Neurologist	9	33,33
Physiotherapist	3	11,11
Pneumologist	1	3,70
Pediatrician	3	11,11
Phonoaudiologist	4	14,83
Occupational Therapist	3	11,11
Otolaryngologist	1	3,70
Geriatrician	2	7,41
Spontaneous Demand	1	3,70
TOTAL	27	100

Table 2. Clinical findings of dysphagia patients who undergone treatment in a specialized rehabilitation in Alagoas

VARIABLES	N	%
AMOUNT OF SIGNS AND SYMPTOMS:		
No symptom	1	3,70
1 symptom	0	0
2 symptoms	0	0
3 symptoms	4	14,81
4 symptoms	7	25,93
5 symptoms	5	18,52
6 symptoms	6	22,22
7 symptoms	3	11,11
8 symptoms	0	0
9 symptoms	1	3,70
SIGNS AND SYMPTOMS		
Oral Escape	17	62,96
Nasal Reflux	2	7,41
Multiple swallowing	15	55,56
Cyanosis	1	3,70
Altered vocal quality	6	22,22
Coughing	22	81,48
Loud auscultation	9	33,33
Choking	24	88,89
Loss of weight	3	11,11
Dehidration	0	0
Pneumonia	3	11,11
Increase of oral transit	12	44,44
Alteration in the laryngeal mobility	10	37,04
Stasis in the oral cavity	7	25,93
ETIOLOGY OF THE DYSPHAGIA		
Neurologic	24	88,89
Mechanic	2	7,41
Others**	1	3,70
DEGREE OF THE DYSPHAGIA		
Light	15	55,56
Moderate	7	25,93
Severe	5	18,52
TOTAL	27	100

Data classified according to an adaptation of the Dysphagia Risk Evaluation Protocol (DREP)16

* The percentage obtained from the absolute n does not correspond to the N from the study sample, not even to the sum of 100%, having that the patients presented more than one sign or symptom of Dysphagia (data obtained from the medical records).

** Psychogenic, iatrogenic e presbiphagic Dysphagia.

Concerning the referral origin, 33.33% (9/27) of the patients were from neurologists. Other health specialties were found in the medical records, however presented less often. Table 1 describes all sociodemographical data found.

Regarding Table 2, absolute and percentage numbers show the signs and symptoms of Dysphagia, being noted the constant presence of choking: 88,89% (24/27); 81,48% (22/27) with cough; 62,69% (17/27) with oral escape e 55,56% (15/27) with multiple swallowing. Concerning the etiology of the Dysphagia, 88.89% (24/27) presented neurogenic Dysphagia, being 55.56% (15/27) of a light degree. [Table 2]

Concerning complicating factors associated with Dysphagia, 51.85% (14/27) presented a correlation with the use of pharmaceuticals, repeated episodes of pneumonia or denutrition. However, 48.15% (13/27) reported not presenting any associated aggravating factors. Regarding pathologies associated to the Dysphagia etiology, 29.63% (8/27) of the patients presented some kind of chronic non-progressive encephalopathy (CNPE) and 18.52% (5/27) suffered cerebrovascular accident (CVA). The presence of other pathologies was found, however, less often. In what refers to

feeding path, oral was predominant with 77.78% (21/27) of the patients. [Table 3].

Regarding the execution of complementary exams for the Dysphagia diagnosis, 55.56% (15/27) of the patients didn't go through, Dysphagia only being diagnosed through clinical evaluations. Concerning speech-language therapy, 37.04% (10/27) of patients had undergone from 16 to 25 sessions of treatment at the referred SRC III. 66.67% (18/27) had never previously undergone speech-language therapy. Nowadays, from the 27 initial patients of this study, 81.48% (22/27) still find themselves attending speech-language therapy, and only 40.90% (9/20) undergo therapy in order of the improval of the dysphagic signs and symptoms. [Table 4]

The following variables were related: feeding path, referral origin and the etiology of the Dysphagia with the quantification of signs and symptoms of Dysphagia presented by the patients [Table 5] and the correlation between the degree of Dysphagia and the use of the alternate feeding path, however, significance was observed only in the latter, found as a result of $p < 0,0001$. The patients who presented a light degree of Dysphagia (100% - 15/15) didn't need the use of an alternate feeding path; on the other hand, the ones who presented a severe degree (100% - 15/15) made use of an alternate feeding path. [Table 6]

Table 3. Findings related to associated risk factors, presence of other associated pathologies and the feeding path of dysphagia patients who undergone treatment in a specialized rehabilitation center in Alagoas

VARIABLES	N	%
ASSOCIATED RISK FACTORS		
No	13	48,15
Yes	14	51,85
ASSOCIATED PATHOLOGIES		
Parkinson	2	7,41
Amyotrophic lateral sclerosis	1	3,70
Multiple sclerosis	1	3,70
Cerebrovascular accident	5	18,52
Myasthenia gravis	1	3,70
Head and Neck Cancer	1	3,70
Syndromes	4	14,81
Chronic non-progressive encephalopathy	8	29,63
Meningitis	2	7,41
Tumours	1	3,70
Presbiphagia	1	3,70
FEEDING PATH		
Alternate	6	22,22
Oral	21	77,78
TOTAL	27	100

Table 4. Analysis related to complementary exams, previous speech-language therapy and current situation of dysphagia patients who undergone treatment in a specialized rehabilitation center in Alagoas

VARIABLES	N	%
COMPLEMENTARY EXAMS		
Fiberoptic nasal endoscopy of swallowing	11	40,74
Videofluoroscopy of swallowing	1	3,74
None	15	55,56
PREVIOUS SPEECH-LANGUAGE THERAPY		
No	9	33,33
Yes	18	66,67
CURRENT SITUATION		
Terminated	4	14,81
Death	1	3,70
Undergoing Therapy	22	81,48
* *Speech-language Therapy for other demands*	*13*	*59,10*
* *Speech-Language Therapy for Dysphagia*	*9*	*40,90*
TOTAL	27	100

* Results found, with N numbers equal to 22,. From the total sample of 27, only these find themselves in therapy at the present moment.

Table 5. Associative analysis of feeding path, referral origin and etiology of the dysphagia with amount of signs and symptoms of dysphagia presented by the patientes who undergone treatment in a specialized rehabilitation center in Alagoas

VARIABLES	Amount of signs and symptoms				p Value
	Laryngeal**		Non Laryngeal***		
	N*	%	N*	%	
ALTERNATE FEEDING PATH					
Yes	13	24,2	15	18,8	0,5942
No	56	75,8	47	81,2	
REFERRAL ORIGIN					
Rehabilitation Team	24	40,7	22	41,5	0,9179
Medical Specialty	35	59,3	31	58,5	
ETIOLOGY OF THE DYSPHAGIA					
Neurologic	62	89,9	55	88,7	0,9778
Mechanic	4	5,8	4	6,5	
Others	3	4,3	3	4,8	

Chi-Square test, where p is signficant when ≤ 0,05
* The numbers found from N do not correspond to the total sample number, once the patients presented more than one sign and symptom from Dysphagia;
**Laryngeal: signs and symptoms presented as a result of the penetration of the laryngeal vestibule.
*** Non Laryngeal: signs and symptoms presented before or after the vocal folds.

Table 6. Associative analysis of the feeding path with the degree of dysphagia presented by the patients who undergone treatment in a specialized rehabilitation center in Alagoas

VARIABLES	Degrees of Dysphagia						p
	Light		Moderate		Severe		
	N	%	N	%	N	%	
ALTERNATE FEEDING PATH							
Yes	0	0	1	14,3	5	100	≤0,0001
No	15	100	6	85,7	0	0	

Chi-square test, where p is significant when ≤ 0,05

Discussion

Regarding the sociodemographic characteristics of the Dysphagia patients, it was possible to observe, in the present study, a bigger number of male individuals, with an average age of 33.9 years, allocating them in the adult population. The provided data diverges from the ones found in other studies, which report a profile with a predominance of elderly individuals (an average of 73.6 years) and other female patients.[4,6,11] Some studies report the predominance of the male gender, however with the age average remaining high, superior to 60 years.[17,18]

The origin of this situation may be due to the overall social idea that the treatment of this condition is not seen as a "masculine" situation, reflecting harsher and more chronic health conditions on men than women, in order that the demand for treatment is not preventive, but of a curative inclination, when the individual's situation is already aggravated.[19]

Such information can evidence a common situation in what refers to the low attendance of men towards preventive habits related to health, generating, as a consequence, the predisposition of this population to disease and even more precocious aggravating factors.

In what refers to the sociodemographic profile expected for public service, the present study demonstrates that most patients possess low scholarship level and a main functional situation of retirement, data that corroborates with studies that approach the profile of Dysphagia patients under treatment in two different public services.[4,6]

Some studies describe a correlation between the high level of scholarship of the individual and their improvement in life quality, stating the fact that people with better levels of education are healthier and live longer by presenting a better

control of the risk factors that can lead to disease.[20] Such information is in tune with what can be found in other works, for the reason that most part of those related in the research possesses only an incomplete elementary degree, consequating a late search for treatment, with even bigger and more severe proportions of aggravation on the individual.

The justification for the prevalescence of retired individuals can be linked to the existence of some degree of adherence from the patient, caused by the restriction and/or loss of capacity and ability to perform in professional activities due to the limitations caused by the basic pathology, initiator of the Dysphagia.

In what refers to the origin of these patients, most come from the capital, however those who reside in other cities also seek treatment out of their homes. Although there is treatment offered by the single health system (SHS) in the nearby cities, the search for the referred Center can be related to the lack of speech-language therapy in the public health Center of the patient's hometown.

Only one study investigating this data was found, in which a similar result was observed: It describes that, even while most treated patients originated from the state capital, it was still possible to find patients from nearby cities, due to the lack of this service in smaller regions and the importance of school-clinics as referrences in the public network of speech-language pathology and audiology therapy.[21]

Another piece of information that caught the attention of the study was the referral origin. There was a prevalence of referrals made by neurologists, data not reported in the studies, seen that the consulted literature only approach the referral origin non-specifically, through health professionals in general, schools or spontaneous demand. [21,22] Only two studies performed a classification of the professionals involved, however referrals from otorhinolaryngologists and pediatricians happened more often.[17,23] Such occurence, in the present study, can be associated with the predominance of neurologic pathologies and with the etiologic characterization of the neurogenic Dysphagia.

The data found, concerning clinical signs and symptoms related to Dysphagia, show a predominance of choking, coughing, oral escape, multiple swallowing and an increase of oral transit. In the studies that quantified the signs and symptoms of Dysphagia, it was possible to evidence the prevalence of coughing, multiple swallowing, increase of oral transit and altered vocal quality, similar results to what was found in this present study.[24,25] In other literature consulted, it was highlighted the presence of coughing and respiratory infections, however without quantification, being performed only the description of the signs and symptoms. [4,10,12]

The swallowing disturbance is believed to be presented in a heterogeneous form in the individuals, with the incidency possible of being more expressive, with a set of signs and symptoms of Dysphagia, or less expressive, presenting only a symptomatology, including also possibly appearing itself in a silent form.

In what refers to the etiology of the Dysphagia, many were the basic alterations observed. Among the pathologies found, most patients presented secondary Dysphagia to the neurologic diagnosis of chronic non-progressive encephalopathy (CNPE) or Cerebrovascular Accident (CVA). The association between Dysphagia and neurologic diseases is described in other studies, in which is evidenced the high occurrence of Dysphagia in neurologic patients, especially due to the uncoordination of the swallowing mechanism, wheter transitory or permanent.[4,10] Such findings reinforce the importance of multidisciplinarity and the need of a bigger proximity and interaction between the several health professionals, especially in what refers to a differentiated look at the presence of Dysphagia signs.

The high prevalence of complicating factors associated with Dysphagia was another data that caught the attention of the study. Most patients presents, or has presented, some kind of aggravant factor in their clinical condition associated with the presence of Dysphagia, with the use of depressant medication in the general picture, dehydration, denutrition, pneumonia or repeated hospitalizations.

Such information evidences what can be found in literature, being observed a higher prevalence of pneumonia, with the use of medication and a fall in the nutritional status.[10,11,25] Seen that the analyzed studies show a frequent association between the presence of Dysphagia with complicating associated factors, this situation reflects in predisposed aggravating factors for the general condition of the patient, initiating complications and increasing the chances of the occurrence of bronchoaspiration, which harm the functional recovery of the individual, being considered a strong contribution to

the risk of aggravation in the overall condition of the patient suffering from Dysphagia.

In this study, most patients had undergone only the clinical speech, language pathology and audiology evaluation, with the use of validated instruments to guarantee bigger reliability in the evaluating procedure, as, for example, the use of DREP, followed by the association of the instrumental exam, the fiberoptic nasal endoscopy of the swallowing. Regarding the evaluation performed for the diagnosis of the Dysphagia, the studies show two main methods for its evaluation and tracking: the clinical evaluation and the instrumental exams, such as videofluoroscopy of the swallowing and the fiberoptic nasal endoscopy of the swallowing.[27,28]

The clinical evaluation of the swallowing offers much information regarding the swallowing process of the individual undergoing the procedure, being performed an analysis of the anatomic structures involved, such as posture, tone, mobility and stability of the structures participating in the swallowing process and the physiology of their phases, with an offering of food of different quantities and consistencies.[27]

Although the perfoming of objective exams such as the videofluoroscopy of the swallowing is the most reliable form to evaluate the swallowing, its high cost and lack of availability make the execution of this exam to be unpractical in ambulatory and clinical environments of the public sector; with the clinic evaluation being, in many cases, the only examination performed. This reality is present in the state of Alagoas, being noted the lack of an offer of the exam in the public service. Besides this, not until this year, the private health insurance companies returned to offer the videofluoroscopy exam.

Concerning speech-language therapy, the results point that few patients still present a demand for interventions with a focus on Dysphagia, demonstrating the effectiveness of this therapy on the progression of a safe oral diet. This data corroborates greatly with the results obtained from the studies undertaken about the effectiveness of speech-language therapy in the reintroduction of the safe oral path in patients suffering from neurogenic Dysphagia.[29,30]

Confronting the variables, the Dysphagia degree and the feeding path, it was possible to find a significant relation, in which all patients who presented a light degree of Dysphagia performed oral feeding. However, every patient with a severe degree made use of an alternate feeding path. Although the swallowing disturbance is one of the causes that lead to the use of an alternate feeding path, through this study, it can be observed that, with the help of speech, language pathology and audiology conducts, depending on the degree of Dysphagia shown by the patients, it is possible to establish the introduction of oral feeding in a safe and effective way, preventing further complications. [9,26]

Conclusion

In the present study, it was possible to describe the speech, language pathology and audiology demand of patients with Dysphagia in a specialized rehabilitation Center, characterized by a heterogenous population in which, sociodemographically, there was a predominance of adults, with an average age of 33.9 years; male gender, retired, originating from the state capital and with incomplete elementary education.

The clinical profile highlighted a predominance of neurogenic Dysphagia, impaired by CNPE and CVA, light degree, presenting an average of four coexisting signs and symptoms of Dysphagia, with bigger prevalence of choking, coughing, presence of oral escape and multiple swallowing. Most patients presented complicating factors associated with Dysphagia, but were able to maintain their oral feeding.

The speech, language pathology and audiology clinic evalution for the diagnosis of Dysphagia was predominant, reenforcing the lack of objective exams being offered by the public service meant for diagnostic ends.

The study contributes to point the way of directive and effective actions for the population suffering from the condition, providing a clinic specialized look at the patient with Dysphagia.

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