

Telmo Simão Pereira da Silva

Hérnias do hiato e envolvimento respiratório – Avaliação
de sintomas respiratórios após correção cirúrgica.

Hiatal hernias and respiratory involvement – Assessment
of respiratory symptoms with the surgical correction.

março de 2020

U. PORTO

FMUP FACULDADE DE MEDICINA
UNIVERSIDADE DO PORTO

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Mestrado Integrado em Medicina

Área: Medicina/Pneumologia

Tipologia: Dissertação

Trabalho efetuado sob a Orientação de:

Dra. Mafalda van Zeller

E sob a Coorientação de:

Dr. Vítor Devesa

Trabalho organizado de acordo com as normas da revista:

Pulmonology

março 2020

FMUP

Eu, Helmo Simão Pereira da Silva, abaixo assinado, nº mecanográfico 201406252, estudante do 6º ano do Ciclo de Estudos Integrado em Medicina, na Faculdade de Medicina da Universidade do Porto, declaro ter atuado com absoluta integridade na elaboração deste projeto de opção.

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Faculdade de Medicina da Universidade do Porto, 11/03/2020

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DESIGNAÇÃO DA ÁREA DO PROJECTO

Medicina / Pneumologia

TÍTULO DISSERTAÇÃO/~~MONOGRAFIA~~ (riscar o que não interessa)

Hiatal Hernias and Respiratory Involvement - Assessment of respiratory symptoms with the surgical connection

ORIENTADOR

ANA RAFAELA VAO ZELLER DE TACEDO BASTO GONCALVES

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Dedico este trabalho a todos aqueles que contribuíram para esta etapa da minha vida, incluindo Professores, Colegas, Amigos e Família.

Title: Hiatal Hernias and Respiratory Involvement - Assessment of respiratory symptoms with the surgical correction.

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Abstract

Introduction: Hiatal hernias are prevalent. Although gastroesophageal reflux related symptoms are more common, hiatal hernias can lead to respiratory symptoms and development or worsening of pulmonary pathologies. Surgical correction of hiatal hernias may be associated with improvement of respiratory symptoms.

Objectives: Evaluate the prevalence of respiratory symptoms in patients with indication for surgical correction, evaluate the respiratory symptoms more likely associated with hiatal hernia and evaluate the impact of the surgical intervention on the respiratory symptoms.

Methods: Retrospective study of patients submitted surgical hiatal hernia correction in Centro Hospitalar Universitário São João between October 2014 to January 2017. Demographic and clinical data were collected through the Health Electronic Record.

Results: Fifty-three patients were included, mean age of $67,2 \pm 14,1$ years, 37 (69,8%) were females with a preoperative BMI of $28,51 \pm 4,5$ kg/m². Most of the patients (86,8%) had, at least, one comorbidity and 11 had a respiratory pathology. Respiratory symptoms were present in 21 (39,8%) preoperative patients, being cough (n=17, 32,7%), dyspnea (n=8, 15,1%) and wheezing (n=6, 11,3%) the most prevalent. Regarding postoperative respiratory symptoms, there was a reduction of 29,5%, remaining 15 (28,3%) patients with, at least, one respiratory symptom. Cough was present in 11 (20,8%), presenting a reduction of 35,3% and dyspnea in 5 (9,4%) patients with a reduction of 37,5%.

Discussion: Surgical correction can reduce these respiratory symptoms and therefore they must be considered when deciding on surgical treatment. We need to consider hiatal hernia as a differential diagnosis in patients with respiratory symptoms.

Keywords: Hiatal Hernias; Respiratory symptoms; Surgical correction

Main text

Introduction

Hiatal hernia is a common condition in general population that can lead to multiple symptoms. The general incidence of hiatal hernia is difficult to access because in many cases, symptoms are absent. Overweight and elderly are the key risk factors for the development of hiatal hernia, because the pathogenesis of the hernias is related to the weakening of the phrenoesophageal ligament, which attaches the gastroesophageal junction to the diaphragm at the hiatus. The higher pressure in the abdominal cavity, common in abdominal obesity, contributes to the herniation in the way that makes the abdominal content migrate to the low-pressure thorax. Women that had multiples pregnancies have a higher risk of developing hiatal hernia.¹ There is gender predominance in paraesophageal hernias (PEH) which are more likely to occur in women (4:1) and PEH appears in younger ages than the type I hernia.² People that were submitted to an esophageal surgery, like Heller's myotomy, or a gastric intervention, like a partial sleeve or a full gastrectomy, are more likely to develop a hiatal hernia.³

The great majority of the hiatal hernias are sliding hernias (type I). The sliding hernias occur when the gastroesophageal junction and the upper portion of the stomach are above the diaphragm in the posterior mediastinum. But there are some other types, type II is a paraesophageal hernia (PEH) in which the gastric fundus herniates but the gastroesophageal junction remains fixed at the hiatus, in type III the gastroesophageal junction also herniates in thorax cavity. The type IV occurs when other parts of the stomach and other viscera herniate into the mediastinum. The paraesophageal are associated with volvulus, upside down stomach and strangulation of the stomach.²

The clinical presentation differs when it comes to a PEH or a sliding hernia. The sliding hernia is associated with more common symptoms like heartburn and regurgitation. These last symptoms are caused by gastroesophageal reflux secondary to a mechanical failure of the cardia. ⁴ Most of the paraesophageal and mixed hernias are asymptomatic, but when symptoms are present, they are related with unspecific abdominal complaints such as postprandial fullness, dysphagia, early satiety and vomiting, that are explained by the compression of the esophagus by the herniated content.⁵

Hiatal hernias are also associated with respiratory symptoms, especially the PEH, in which there is a high prevalence of respiratory symptoms like dyspnea, chronic cough, and some respiratory diseases like recurrent pneumonia, asthma and idiopathic

pulmonary fibrosis (IPF).⁶⁻⁹ These symptoms are related to two factors, one is related directly with the hernia and the other is related to gastroesophageal reflux.

The content that herniates into the thorax can have a mass effect which can compromise the respiratory and cardiac function.^{10, 11} That mass effect will restrict the capacity of the lung leading to atelectasis and even lung collapse, and also results in ventilation-perfusion abnormalities in the upper and lower zones of the lungs.^{9, 12} There are reports of cases that a large mass of stomach in the thoracic cavity leads to serious impairment of the cardiac and respiratory function.^{10, 13} Hiatal hernias are also associated with diaphragm dysfunction, the herniation of the gastroesophageal junction or even the stomach into the thorax, cause structural alterations in the diaphragm, that lead to less efficiency in respiratory movement which contributes progressions of the respiratory symptoms, especially the dyspnea.^{12, 14}

The other important factor that leads to respiratory symptoms is gastroesophageal reflux (GER) that is very common in all types of hiatal hernias. GER can lead to chronic cough, pneumonia, bronchitis, asthma and IPF.^{6-8, 15} The mechanism involved is related with micro and macro aspirations of acid content that can originate an inflammatory state of the upper portion of the tracheobronchial tree resulting in cough. That inflammatory state also can lead to bronchitis, asthma or exacerbation of symptoms in that patients, and IPF.^{6, 8, 15} Pneumonia can occur more frequently in hiatal hernias because of the micro and macro aspirations of gastric content.¹⁶ There is also a vagal response when acid content reaches the upper part of the esophagus, the acid will activate vagal receptor which provokes cough and bronchospasm by a vagal reflex.^{17, 18} Obliterans bronchiolitis is also associated with GER, it's a clinical syndrome marked by the presence of dyspnea and cough without parenchymal lung disease, but with progressive and irreversible airway obstruction caused by lesions in the terminal bronchioles.^{19, 20}

Regarding the diagnosis of the hiatal hernia, it is mandatory a complete clinical history and a complete physical exam, but in most cases, the diagnosis is made by imaging studies. Barium swallow radiography is useful to access the size of the herniated stomach and the location of the gastroesophageal junction. The esophagogastroduodenoscopy is used to evaluate the esophageal mucosa. Esophageal manometry is usually done before surgery to evaluate the motility of the esophagus and rule out other motility disorders. Other studies include pH-testing and computer tomography (CT), pH-testing is useful to evaluate the degree of acid gastroesophageal

reflux, and the CT is not routinely recommended, but can offer important information if needed.³

The gold standard treatment for hiatal hernias is surgery. It is recommended surgical treatment in all symptomatic hernias. In asymptomatic cases, regarding type 1 hernias is not recommend to treat in the absence of GER related symptoms, in PEH it's recommended a case-by-case evaluation.²¹ In most cases is a transabdominal approach, and can be laparoscopic, more frequent, or open surgery. Concerning the technique, fundoplication should be performed in the repair of all types of hernias, especially in type I, to address gastroesophageal reflux.²² Total fundoplication (Nissen) and partial fundoplication (Toupet) are the most used and they demonstrate similar success in reducing symptoms but the partial fundoplication (Toupet) has shown less adverse effects.²³ Although surgical correction is the most effective treatment, many patients that underwent surgical correction will continue to have some symptoms, and, therefore, will need surveillance, and in some cases medical treatment.³

The purpose of the study is to evaluate the prevalence of patients with respiratory symptoms and hiatal hernia with indication for surgical intervention, evaluate the respiratory symptoms more likely associated with hiatal hernia and evaluate the impact of the surgical intervention on the respiratory symptoms.

Methods

A retrospective study of patients submitted surgical hiatal hernia correction in Centro Hospitalar Universitário de São João between October 2014 to January 2017.

Demographic data (age, gender, smoking history) and anthropometric measurements (age, height and body weight) were collected from the Health Electronic Record, body mass index (BMI) was calculated as body weight (kg)/ height² (m²) and obesity classes were defined as: normal (BMI≤25 kg/m²), overweight (BMI 25.0–29.9 kg/m²) and obesity (BMI≥30 kg/m²).

Preoperative and postoperative symptoms related to hiatal hernia were collected. The presence of dyspnea, cough, sputum, wheezing, hoarseness and recurrent respiratory infections was analyzed. Also, information regarding cardiovascular and metabolic comorbidities and previous respiratory disease' diagnosis (asthma, chronic obstructive pulmonary disease (COPD) and pulmonary interstitial disease) was collected. If available, respiratory function tests were evaluated.

Quantitative variables are summarized as means (\pm standard deviation, *SD*), whereas qualitative variables are summarized as absolute and relative (percentage) frequencies.

To compare demographic characteristics in subgroups we used independent-samples T-test, and to compare categorical variables we used Chi-square/Fisher's exact tests.

Statistical significance was set at $p < 0.05$. Statistical analysis was performed using IBM SPSS Statistics 26.0 (IBM Corp., Armonk, NY, USA) software.

Results

Fifty-three patients underwent surgical repair of hiatal hernia in Centro Hospitalar Universitário de São João between October 2014 to January 2017. The majority of patients were female 37 (69,8%), the mean age was $67,2 \pm 14,1$ years and the mean follow-up time after surgery was $43,9 \pm 11,2$ months. The mean preoperative BMI was $28,51 \pm 4,5$ kg/m² and 10 (18,9%) patients were obese.

Regarding to comorbidities present before the surgical procedure, 86,8% of the patients had, at least, one comorbidity, 31 (58,5%) had hypertension, 19 (35,8%) had dyslipidemia, 6 (11,3%) had diabetes, 2 (3,8%) had heart failure diagnosis, 2 (3,8%) had history of acute coronary syndrome, 2 (3,8%) had history of cerebrovascular disease.

Five patients (9,4%) were former or current smokers and regarding the respiratory diseases' diagnosis, 16 (31,4%) patients had, at least, one previous respiratory disease diagnosis. In Table 1 are summarized the demographic characteristics, patients' comorbidities and the different respiratory diseases' diagnosis present before undergoing surgery.

	n (%)
Age	$67,2 \pm 14,12$ years
Pre-surgical BMI	$28,51 \pm 4,5$ kg/m ²
Comorbidities	
Diabetes	6 (11,3%)
Dyslipidemia	19 (35,8%)
<u>Cardiovascular</u>	
Hypertension	31 (58,5%)
Heart Failure	2 (3,8%)

Acute coronary syndrome	2 (3,8%)
Cerebrovascular disease	2 (3,8%)
Electrocardiographic or echocardiographic alterations	4 (7,5%)
Peripheral venous disease	1 (1,9%)
Peripheral arterial disease	1 (1,9%)
Current or former smoker	5 (9,4%)
<hr/>	
<u>Respiratory</u>	
<hr/>	
Previous respiratory diseases' diagnosis	16 (31,4%)
Asthma	5 (9,4%)
COPD	9 (17,0%)
Interstitial lung disease	1 (1,8%)
Rhinitis	6 (11,3%)
Sinusitis	4 (7,5%)
Bronchiectasis	1 (1,9%)
Bronchospasm	1 (1,9%)

Table 1- Demographic characteristics, patients' comorbidities and respiratory diagnosis

The main presentation leading to surgery referral was GERD related symptoms, accounting with 24 (46,2%) patients. The other symptoms that motivated the referral were surgical related symptoms, like obstruction, trauma or hernia recurrence, dyspepsia related symptoms, anemia, and alterations in routine imaging studies or required in the context of the investigation of other pathologies that suggested hiatal hernia.

Respiratory symptoms, like dyspnea or cough, were also present in 4 (7,7%) patients. Table 2 summarizes the motives of referral to a specialized appointment.

Motive of referral	n (%)
GER related (including heartburn and regurgitation)	24 (46,2%)
Dyspepsia (including early satiety and epigastric pain)	4 (7,7%)
Anemia	4 (7,7%)
Respiratory symptoms (including dyspnea and cough)	4 (7,7%)
Surgical related symptoms (including obstruction, trauma or recurrence)	10 (19,2%)
Findings in imagiological studies	6 (11,5%)

Table 2- General Surgery Consult referencing motives

Respiratory symptoms were present in 21 (39,6%) preoperative patients. Cough was the most prevalent respiratory symptom, followed by dyspnea, sputum, wheezing, recurrent respiratory infection and hoarseness (Table 3).

Regarding the postoperative symptoms' evaluation, there was a reduction in the number of patients with respiratory symptoms, accounting a total of 15 (28,3%) patients. Cough was also the most prevalent respiratory symptom, followed by dyspnea and wheezing. Table 3 describes the prevalence of respiratory symptoms in preoperative and postoperative patients.

Symptoms	Pre surgery	Post-surgery
	n (%)	n (%)
Dyspnea	8 (15.1)	5 (9.4)
Cough	17 (32.1)	11 (20.8)
Wheezing	6 (11.3)	5 (9.4)
Hoarseness	1 (1.9)	1 (1.9)
Sputum	8 (15.1)	4 (7.5)
Recurrent respiratory infection	5 (9.4%)	1 (1.9%)

Table 3- Pre and postoperative respiratory symptoms

Patients with previous respiratory disease were compared to those without respiratory disease' diagnosis. There were no statistically significant differences concerning age and BMI, nevertheless, patients with previous respiratory disease had significant increased prevalence of symptoms before and after surgery. The results are summarized in Table 4

	With previous respiratory diseases' diagnosis	Without previous respiratory diseases' diagnosis	p value
n (%)	16 (30,2%)	35 (66,0%)	
Age (years)	68,44 ± 10,78	65,97 ± 15,41	0,291
BMI (kg/m ²)	27,39 ± 4,73	26,51 ± 4,59	0,648
Presence of Respiratory symptoms			
Preoperative	11 (76,8%)	10 (31,3%)	0.004
Postoperative	11 (73,3%)	4 (12,5%)	<0,0001

Table 4 - Comparasion between patients with and without respiratory disease diagnosis

The postoperative BMI was 26,6 kg/m², although it was lower than the preoperative BMI, the decrease was not statistically significant.

The referral of the patients to a specialized appointment was made, in the majority of the cases, by the family's doctor, in a total of 32 (65,3%) patients referred by them. 8 (16,3%) patients were referred after attending at emergency service, 2 (4,1%) were referred by a pneumologist after going to an appointment motivated by respiratory symptoms, and 7 (14,3%) were referred by other medical specialties. In 4 patients we could not assess who made the referral.

Discussion

The formal indication for surgical correction of hiatal hernias is the presence of symptoms, but most of the physicians do not account the respiratory symptoms as a consequence of the hiatal hernia. Also symptoms assessment, in the majority of cases, focuses the symptoms related with GER or the dyspepsia symptoms, and rarely assess respiratory related symptoms, like dyspnea and cough, although they are prevalent in the population with hiatal hernia, as we saw in the results of our study.¹⁴

In this study, the prevalence of respiratory symptoms on preoperative evaluation was 39,6% but they only accounted for 7,7% of surgery referral. This supports previous observations regarding that although prevalent, respiratory symptoms are often devaluated as a consequence of the hiatal hernia.¹⁴

The most frequent respiratory symptoms on preoperative evaluation were cough (32,1%), dyspnea and sputum (15,1%). These finds are in line with previous studies: Bjelovic reported that 20,3% of patients with type I or III hiatal hernias and 58,1% of patients with giant PEH had, at presentation, breathing difficulties.²⁴ Low reported that 22% of patients with PEH had dyspnea at presentation and in Carrot, who only evaluated giant PEH, 53% had dyspnea and 16% had cough.^{14, 25} In Braghetto's study, who addresses all types of hernias, he concludes that 16,6% of patients bellow 70 years and 29,1% older than 71 years had respiratory related symptoms.²⁶

We observed a reduction of 28,6%, from 39,6% to 20,8%, between post and preoperative patients that had at least one respiratory symptom. Considering each symptom, we observed a reduction of 35,3% in cough, a 50% reduction in the presence of sputum, a 37,5% reduction in dyspnea, a 16,7% reduction in wheezing and hoarseness did not show any alteration, with only one patient complaining pre and postoperative. As we saw in this study and in other series, like Carrot and Zhu, there is an improvement in respiratory symptoms in these patients, which can result in a better quality of life.^{9, 14}

Assessing symptoms resolution after surgery, particularly concerning respiratory symptoms, the presence of comorbidities is highly relevant. 86.8% of patients had at least one comorbidity including cardiovascular and respiratory. In fact, they might explain the persistence of some shared symptoms after the surgical correction of the hiatal hernia.

Nevertheless, in this study, there was no significant reduction in BMI, we know that small reductions in BMI can lead to significant improvements in respiratory function and symptoms relief.²⁷

We verified that there were no differences in demographic characteristics between patients with or without previous respiratory diseases' diagnosis (Table 4), but respiratory symptoms were more prevalent in patients with previous respiratory diseases' diagnosis than in patients without, pre and postoperative ($p=0.004$ and $p< 0,0001$). We also documented that the reduction of the number of patients with respiratory symptoms after hiatal hernia surgical correction only occurred in patients without previous respiratory diseases' diagnosis. These results go against the literature that shows a reduction of respiratory symptoms in patients with previous respiratory diseases' diagnosis, specially in asthma.^{28, 29} These can be explained the small population of the study and by the lack of qualitative evaluation of the respiratory symptoms, which can still be present, but their intensity may be lower after the surgery. This is a limitation of our study, because the improvements in the intensity of respiratory symptoms, which can contribute to a general improvement in the quality of life of patients, could not be evaluated.

This study has limitations, being a retrospective study, and regarding symptoms evaluation, data were not systematically collected. Since clinical interviews may differ according to the physician, an interview bias might emerge, and some symptoms may not have been assessed and be underestimated or it can be difficult to distinguish if some symptoms are related to the hiatal hernias or other cause.

The small population in our study is also a limitation as it reduces our capacity to generalize results to the general population. Respiratory function was not evaluated, and it could be very useful, in future studies, to evaluate the improvement of respiratory function and symptoms with the surgical correction of the hiatal hernias.

The present study adds value concerning the relevance of evaluating respiratory symptoms on patients with hiatal hernias since its correction may lead to symptoms improvement. Also, hiatal hernia might be a differential diagnosis to consider in those

patients. That said, we think that physicians should take into consideration these symptoms when deciding to surgically treat hiatal hernias.

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Agradecimentos:

À Dra Mafalda van Zeller por toda a sua disponibilidade e por todo o seu apoio neste projeto que o tornou possível. Por me ter ajudado a desenvolver novas capacidades que melhor me prepararão para o meu futuro.

Ao Dr Vítor Devesa por se ter mostrado prestável para abraçar este projeto tendo estado disponível para ajudar sempre que fosse necessário.

Aos meus pais pelo apoio que me dão fora e dentro do meu percurso académico. Obrigado pela estabilidade que me trazem e que potencia a minha capacidade de enfrentar os obstáculos e de realizar todos os meus objetivos. Sem vocês não seria possível.

Aos meus amigos que me acompanharam e que se tornaram imprescindíveis. Obrigado por estes 6 anos maravilhosos e cheios de boas memórias.

A todos que de alguma forma contribuíram para o meu percurso académico.

A todos o meu Obrigado.

Anexos

Parecer da Comissão de Ética

Regras de publicação da revista Pulmonology

Unidade de Investigação

Tomei conhecimento. Nada a opor. À DC.

14 de Outubro de 2019

A Coordenadora da Unidade de Investigação

(Prof.ª Doutora Ana Azevedo)



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25/10/2019

n.º 261/19

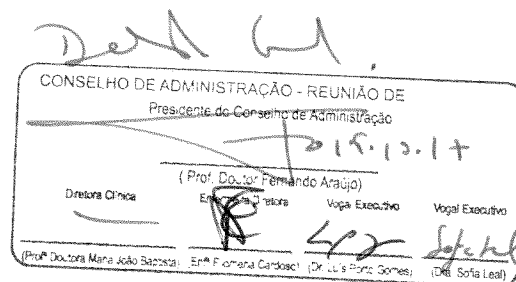
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• Centro Hosp. Univ. São João •
Maria João Baptista
Diretora Clínica

PEDIDO DE AUTORIZAÇÃO

Realização de Investigação

Exmo. Senhor Presidente do Conselho de Administração
do Centro Hospitalar de São João



Nome do Investigador Principal:

Telmo Simão Pereira da Silva, Mafalda van Zeller, Vitor Devesa

Título da Investigação:

Hiatal Hernias and Respiratory Involvement - Assessment of
respiratory symptoms with the surgical correction.

Pretendo realizar no(s) Serviço(s) de:

Pneumologia e Cirurgia Geral

a investigação em epígrafe, solicito a V. Exa., na qualidade de Investigador/Promotor, autorização para a sua efetivação.

Para o efeito, anexo toda a documentação referida no dossier da Comissão de Ética do Centro Hospitalar de São João/Faculdade de Medicina da Universidade do Porto respeitante à investigação, à qual enderecei pedido de apreciação e parecer.

Com os melhores cumprimentos.

O Investigador/Promotor

Porto, 28 de Agosto de 2019.

assinatura

• Centro Hospitalar São João •
Centro de Epidemiologia Hospitalar

25/10/2019



Questionário para submissão de Investigação

Exmo. Sr. Presidente da Comissão de Ética do Centro Hospitalar de São João/
Faculdade de Medicina da Universidade do Porto,

Pretendendo realizar a investigação infracitada, solicito a V. Exa., na qualidade de Investigador, a sua apreciação e a elaboração do respetivo parecer. Para o efeito, anexo toda a documentação requerida.

IDENTIFICAÇÃO DO ESTUDO

Título da investigação: Hiatal Hernias and Respiratory Involvement - Assessment of respiratory symptoms with the surgical

Nome do investigador: Telmo Simão Pereira da Silva

Endereço eletrónico: telmo.silva96@gmail.com

Contacto telefónico: 913700611

Caracterização da investigação:

Estudo retrospectivo

Estudo observacional

Estudo prospetivo

Inquérito

Outro. Qual? _____

Tipo de investigação:

Com intervenção

Sem intervenção

Formação do investigador em boas práticas clínicas (GCP): Sim Não

Promotor (se aplicável): não aplicável

Nome do orientador de dissertação/tese (se aplicável): Mafalda van Zeller (Orientador); Vitor Devesa (Co-Orientador)

Endereço eletrónico: vanzeller.mafalda@gmail.com

Local/locais onde se realiza a investigação: Serviço de Pneumologia do Centro Hospitalar e Universitário de São João

Data prevista para início: 1 / 09 / 2019

Data prevista para o término: 1 / 03 / 2020

PROTOCOLO DO ESTUDO

Síntese dos objetivos:

Avaliação da prevalência de sintomas respiratórios em doentes com indicação para tratamento cirúrgico de hernia de hiato

Avaliação dos sintomas respiratórios mais prevalentes na hernia de hiato com indicação cirúrgica

Avaliação do impacto do tratamento cirúrgico da hernia de hiato nos sintomas respiratórios

Fundamentação ética (ganhos em conhecimento/ inovação; ponderação benefícios/ riscos):

A hernia de hiato é uma patologia que pode estar associada a sintomas respiratórios e a sua correção à resolução dos mesmos. Avaliar os resultados do CHUSJ no tratamentod desta patologia. Aumentar a percepção e o alerta para a relação desta patologia com os sintomas respiratórios e sua relação.

Não são esperados riscos vistos tratar-se de um estudo retrospectivo.

CONFIDENCIALIDADE

De que forma é garantida a anonimização dos dados recolhidos de toda a informação?

Serão cumpridas as boas práticas de estudos e realização de bases de dados, não sendo incluídas informações identificadoras dos utentes.

O investigador necessita ter acesso a dados do processo clínico? Sim Não

Está previsto o registo de imagem ou som dos participantes? Sim Não

Se sim, está prevista a destruição deste registo após o sua utilização? Sim Não

CONSENTIMENTO

O estudo implica recrutamento de:

Doentes: Sim Não Voluntários saudáveis: Sim Não

Menores de 18 anos: Sim Não

Outras pessoas sem capacidade do exercício de autonomia: Sim Não

A investigação prevê a obtenção de Consentimento Informado: Sim Não

Se não, referir qual o fundamento para a isenção:

Existe informação escrita aos participantes: Sim Não

PROPRIEDADE DOS DADOS

A investigação e os seus resultados são propriedade intelectual de:

Investigador Promotor Ambos Serviço onde é realizado

Não aplicável

Outro: _____

BENEFÍCIOS, RISCOS E CONTRAPARTIDAS PARA OS PARTICIPANTES

Benefícios previsíveis:

não aplicável

Riscos/incómodos previsíveis:

não aplicável

São dadas contrapartidas aos participantes:

· pela participação Sim Não Não aplicável

· pelas deslocações Sim Não Não aplicável

· pelas faltas ao emprego Sim Não Não aplicável

· por outras perdas e danos Sim Não Não aplicável

CUSTOS / PLANO FINANCEIRO

Os custos da investigação são suportados por:

Investigador Promotor Serviço onde é realizado

Não aplicável

Outro: _____

Existe protocolo financeiro? Sim Não

LISTA DE DOCUMENTOS ANEXOS

- Pedido de autorização ao Presidente do Conselho de Administração do Centro Hospitalar de São João (se aplicável)
- Pedido de autorização à Diretora da Faculdade de Medicina da Universidade do Porto (se aplicável)
- Protocolo do estudo
- Declaração do Diretor de Serviço onde decorre o estudo
(sendo um estudo na área de enfermagem deve anexar também a concordância da chefia de enfermagem)
- Profissional de ligação
- Informação dos orientadores
- Informação ao participante
- Modelo de consentimento
- Instrumentos a utilizar (inquéritos, questionários, escalas, p.ex.): _____
- Curriculum Vitae abreviado (máx. 3 páginas)
- Protocolo financeiro
- Outros:

COMPROMISSO DE HONRA E DECLARAÇÃO DE INTERESSES

Declaro por minha honra que as informações prestadas neste questionário são verdadeiras. Mais declaro que, durante o estudo, serão respeitadas as recomendações constantes da Declaração de Helsínquia (1960 e respetivas emendas), e da Organização Mundial da Saúde, Convenção de Oviedo e das "Boas Práticas Clínicas" (GCP/ICH) no que se refere à experimentação que envolve seres humanos. Aceito, também, a recomendação da CES de que o recrutamento para este estudo se fará junto de doentes que não tenham participado em outro estudo, nos últimos três meses. Comprometo-me a entregar à CES o relatório final da investigação, assim que concluído.

Porto, 28 de Agosto de 2019

Nome legível: Telmo Simão Pereira da Silva

Telmo Silva
assinatura

Parecer da Comissão de Ética do Centro Hospitalar de São João/FMUP

Emitido na reunião plenária da CE de 26/09/19

A Comissão de Ética para a Saúde
APROVA por unanimidade o parecer do
Relator, pelo que nada tem a opor à
realização deste projecto de investigação.

Prof. Doutor Filipe Almeida
Presidente da Comissão de Ética

13101127610

(A preencher pelo Gabinete de Apoio ao RAI)



Pedido de Reutilização de Registos Clínicos para Investigação e Desenvolvimento (I&D)

Exmo. Senhor
Responsável pelo Acesso à Informação
(Artigo 9.º da Lei n.º 25/2016, de 22 de agosto)
Dr. Rui de Vasconcellos Guimarães



AUTORIZADO

Reutilização de Registos Clínicos
para Investigação e Desenvolvimento (I&D)
(Artigo 9.º da Lei n.º 25/2016, de 22/8)

30/09/19

1. Identificação do(s) Investigador(es) Preenchimento Obrigatório

1.1. Investigador Principal

Nome Telmo Simão Pereira da SilvaContacto telefónico 9 1 3 7 0 0 6 1 1Endereço eletrónico telmo.silva96 @ gmail.com

1.2. Investigador(es) Associado(s)

Número Total: 3Nome Mafalda van ZellerContacto telefónico 9 1 7 7 7 5 3 0 1Endereço eletrónico vanzeller.mafalda @ gmail.comNome Vitor DevesaContacto telefónico 9 6 4 8 8 3 4 1 1Endereço eletrónico vitor.devesa @ hsjoao.min-saude.pt

Nome _____

Contacto telefónico _____

Endereço eletrónico _____ @ _____

1.3. Afiliação Institucional do Investigador Principal

1.3.1. Grupo Profissional

Médico(a) Enfermeiro(a) Docente Estudante

Outro. Qual? _____

1.3.2. Documento de identificação pessoal ou profissional

Cartão de Cidadão Bilhete de Identidade Célula Profissional

Cartão de Docente Cartão de Estudante Outro. Qual? _____

Número de Documento 1 4 7 1 2 6 6 1

2. Enquadramento e Identificação do Trabalho de Investigação e Desenvolvimento Preenchimento Obrigatório

2.1. Enquadramento da investigação

Trabalho académico de investigação e desenvolvimento:

Não conferidor de grau

Conferidor de grau: Licenciatura Mestrado Doutoramento

Projeto de investigação e desenvolvimento

2.2. Entidade(s) que tutela(m) a investigação

Centro Hospitalar de São João

Serviço: Pneumologia e Cirurgia Geral

Universidade do Porto

Faculdade / Instituto: Faculdade de Medicina da Universidade do Porto, Departamento de Medicina

Outra Instituição. Qual? _____

Há alguma parceria entre instituições?

Não Sim. Qual(is)? CHUSJ - FMUP

2.3. Orientador Se Aplicável

Contacto telefónico 9 | 1 | 7 | 7 | 7 | 5 | 3 | 0 | 1 | | | |

Endereço eletrónico vanzeller.mafalda @ gmail.com

2.4. Título provisório

Hiatal Hernias and Respiratory Involvement - Assessment of respiratory symptoms with the Surgical correction

Deverá posteriormente indicar o título definitivo para emissão do Certificado de Reutilização pelo RAI - DATA REuse Certificate for Research - DARE através dos contactos disponíveis no fim deste formulário.

2.5. Acesso requerido

Ficheiro

Descrição do património informacional a que pretende ter acesso, identificando a informação a obter, i.e. nome, morada, diagnóstico, idade, códigos dos distritos, entre outros.

Consulta de processos clínicos em ambiente papel:

Bloco

Consulta Externa

Hospital de Dia

Internamento

MCDT

Urgência

Deverá anexar ficheiro(s) contendo a identificação do pretendido, i.e. números de processos, episódios, números de utente, entre outros.

Anexar ficheiro no ato de envio

Consulta de registos clínicos eletrónicos

Especificar os Sistemas de Informação:

SClínico - consulta de MCDTs e diários de consultas

Data previsível de fim de utilização das credenciais de acesso 2 | 0 | 2 | 0 - 0 | 7 - 0 | 1

Outro Acesso. Qual? _____

2.3. Pareceres e Autorizações

Autorização da Hierarquia

Protocolo Científico Aprovado ¹

Parecer da Comissão de Ética para a Saúde (CES) ¹

Parecer do Centro de Epidemiologia Hospitalar ¹

Deverá anexar ficheiro(s) contendo cópia dos documentos referentes às opções selecionadas.

Anexar ficheiro no ato de envio

¹ Obrigatório quando aplicável.

3. Observações Preenchimento Facultativo

4. Aceitação dos Termos e Condições da Reutilização

Cumulativamente com as obrigações decorrentes da lei já citada (n.º 2 e 3 do artigo 21 e o n.º 1 e 2 do artigo 12, ambos da Lei n.º 26/2016, de 22 de agosto) ao submeter o presente pedido concordo e fico ainda vinculado aos seguintes termos e condições:

- Comprometo-me a manter confidencial toda a informação à qual vou ter acesso;
- Não vou elaborar registos, susceptíveis de identificar ou tornar identificável a identidade das pessoas a quem os mesmos dizem respeito;
- Não vou elaborar, nem ficar na posse, de cópias de bases de dados utilizadas na recolha de informação;
- Comprometo-me a obter junto da Comissão Nacional de Proteção de Dados (CNPD) as necessárias autorizações, para eventuais bases de dados que venha a conceber e utilizar no âmbito da presente investigação;
- Comprometo-me a devolver ao Centro Hospitalar de São João, na pessoa do seu Diretor Clínico, as bases de dados e o resultado da investigação;
- Comprometo-me a ocultar os elementos de identificação da(s) pessoa(s) a quem os registos digam respeito, em futuras e eventuais publicações de resultados;
- Comprometo-me a consultar os processos clínicos nas instalações que me forem indicadas para o efeito;
- Comprometo-me a obter os necessários pareceres, quer da Comissão de Ética do Hospital, quer do Centro de Epidemiologia Hospitalar, sempre que necessário;
- Comprometo-me a citar as fontes sempre que publicitar o trabalho de investigação independentemente de requerer a Certidão de Reutilização (Data REuse Certificate for Research – DARE);
- Tomei conhecimento, que a violação de qualquer dos compromissos aqui assumidos, resultará no apuramento de responsabilidades disciplinares, civis e penais e ainda, à impossibilidade futura de aceder a informação de saúde para fins de investigação.

5. Decisão do investigador sobre requerer a Data REuse Certificate for Research – DARE Preenchimento Obrigatório

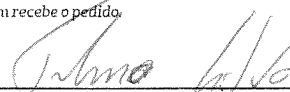
- Pretendo desde já requerer a Certidão de Reutilização (DARE) cujo sentido, valor e significado consultei em <http://portal-chsj.min-saude.pt/pages/710>.
- Não pretendo requerer a Certidão de Reutilização (DARE) cujo sentido, valor e significado consultei em <http://portal-chsj.min-saude.pt/pages/710>.

6. Assinatura

Nota 1: Se o presente pedido for submetido eletronicamente ou faz assinatura digital qualificada; ou posteriormente vem ao Centro Hospitalar de São João exibir o seu documento de identificação pessoal; ou no âmbito do seu espaço de liberdade e como manifestação expressa do seu consentimento envia cópia do referido documento, neste caso, concluído o processo ser-lhe-á devolvida ou eliminada a cópia do documento de identificação pessoal, conforme as indicações que dê.

Nota 2: Se o presente pedido for entregue presencialmente, assina e exibe o documento de identificação a quem recebe o pedido.

Data 20 | 19 | - 10 | 18 | - 12 | 19 |



Investigador Principal

Em caso de dúvida no preenchimento contacte através dos endereços eletrónicos
rai.reutilizacao.id@chsj.min-saude.pt ou ruiguimaraes@chsj.min-saude.pt
ou pelos números de telemóvel 962 204 194 ou 918 880 299

SUBMETER

Parecer da Comissão de Ética para a Saúde do
Centro Hospitalar Universitário de São João / Faculdade de Medicina da Universidade do
Porto

Título do Projecto: Hiatal Hernias and Respiratory Involvement - Assessment of respiratory symptoms with the surgical correction

Nome do Investigador Principal: Telmo Simão Pereira da Silva

Onde decorre o Estudo: Nos Serviços de Pneumologia e Cirurgia Geral do CHUSJ. Dispõe de autorização das respectivas Direcções de Serviço.

Objectivos do Estudo:

Este trabalho de investigação tem como principais objectivos:

- a avaliação da prevalência de sintomas respiratórios em doentes com indicação para tratamento cirúrgico de hérnia de hiato;
- a avaliação dos sintomas respiratórios mais prevalentes na hérnia de hiato com indicação cirúrgica;
- a avaliação do impacto do tratamento cirúrgico da hérnia de hiato nos sintomas respiratórios.

Estudo realizado no âmbito do Mestrado Integrado em Medicina da FMUP, sob orientação da Prof.^a Doutora Mafalda Van Zeller e co-orientação do Dr. Vítor Devesa.

Concepção e Pertinência do estudo:

Estudo retrospectivo.

A hérnia de hiato é uma patologia que pode estar associada a sintomas respiratórios e a sua correcção à resolução dos mesmos. Pretende-se com o presente estudo avaliar os resultados do CHUSJ no tratamento desta patologia, em doentes que realizaram esta cirurgia no CHUSJ entre Outubro de 2014 e Janeiro de 2017, e aumentar a percepção e o alerta para a relação desta patologia com os sintomas respiratórios.

Benefício/risco: Não aplicável

Confidencialidade dos dados:

Não serão incluídas informações identificativas dos utentes.

Apresentou um pedido de reutilização de registos clínicos para Investigação e Desenvolvimento ao RAI.

Respeito pela liberdade e autonomia do sujeito de ensaio: Não aplicável

Curriculum do investigador: Adequado à investigação.

Data previsível da conclusão do estudo: Março de 2020

Conclusão: Proponho um parecer favorável à realização deste projecto de investigação.

Porto, 26 de Setembro de 2019

Almeida

O Relator da CES, Prof. Doutor Filipe

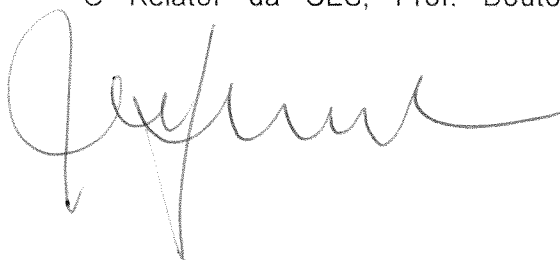
A handwritten signature in black ink, appearing to read 'Filipe Almeida', written in a cursive style.



TABLE OF CONTENTS

●	Description	p.1
●	Abstracting and Indexing	p.1
●	Editorial Board	p.1
●	Guide for Authors	p.3



ISSN: 2531-0437

DESCRIPTION

Pulmonology is the official journal of the Portuguese Society of Pulmonology (Sociedade Portuguesa de Pneumologia/SPP). The journal publishes 6 issues per year, mainly about respiratory system diseases in adults and clinical research. This work can range from peer-reviewed original articles to review articles, editorials, and opinion articles. The journal is printed in English, and is freely available in its web page as well as in Medline and other databases.

ABSTRACTING AND INDEXING

Directory of Open Access Journals (DOAJ)

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Antoni Torres, Pneumology Department, Clinic Thorax Institute, Hospital Clinic of Barcelona - Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), University of Barcelona, CIBERES, Barcelona, Spain

GUIDE FOR AUTHORS

INTRODUCTION

Pulmonology will consider for publication papers, (original articles or revisions, case reports, letters to the editor, commentaries etc) that are related directly or indirectly with the Respiratory System. The opinions expressed are exclusively the responsibility of the authors.

Only manuscripts containing original material which has not yet been published, wholly or partially (including tables and figures), and which have not been submitted to be published elsewhere, will be considered for publication. Before submitting manuscripts, authors must obtain all necessary authorizations for the publication of the submitted material.

Texts should be written in English.

Articles on original research: The text must not exceed 2500 words, excluding references and tables, and be organized into introduction, methods, results, discussion and conclusions, with a maximum of 4 tables and/or figures. In the materials and methods there must be a complete and appropriate reference to the statistical methods used and the results should be quite sufficiently explicit.

Review articles: *Pulmonology* publishes primarily review articles which have been requested by the editors. However, unsolicited articles submitted will be considered, particularly systematic reviews (meta-analysis). The text must not exceed 5000 words, excluding references and tables, with a maximum of 5 tables and/or figures in total. The reviews must be organized systematically in introduction, methods, results and discussion.

Short publications: Preliminary results or new findings could lead to short publications. The text should not exceed 1000 words, excluding references and tables, and be organized into introduction, methods, results and discussion, with a maximum of 2 tables and/or figures in total and up to 10 references. The short publications should be submitted with formal abstracts in English, of not more than 250 words.

Commentaries: Commentaries, essays, critical analyses or declarations of a position in relation to topics of interest in the area of health, particular the politics of health and medical education will be considered. The text must not exceed 900 words, excluding references and tables, and include a maximum of one table or figure. Commentaries do not require abstracts; they will normally be at the request of the editors.

Special articles: Where appropriate the editorial board may invite one or various authors to write an article on a subject of particular formative interest in achieving the priorities of the journal and where the subject matter is not being addressed by other areas of study (for example postgraduate study).

Clinical case studies (case reports): The text should not exceed 1200 words, excluding references and tables, with a maximum of 2 tables and/or figures in total. Clinical case studies should be submitted with formal abstracts in English, of not more than 120 words.

Depending on their interest and originality the clinical case studies may include a commentary/discussion by one of the editors or by an invited reviewer (**Clinical case study with discussion**).

Letters to the editor: Two types of letter to the editor are considered, clinical notes and correspondence.

Clinical notes stand for a very objective reporting of results of clinical observation or original research for which a detailed development is not appropriate. The text should not exceed 800 words, excluding references and tables, and can include a maximum of two tables or figures and up to 7 references.

Correspondence refers to a succinct commentaries on articles published in the Portuguese Journal of Pulmonology, preferably within the previous 6 months. In this case, the text should not exceed 500 words, excluding references and tables, and can include a maximum of one table or figure and up to 5 references.

Letters to the editor should not include abstracts.

In manuscripts signed by more than 6 authors (3 authors in the case of letters to the editor), there has to be an explicit explanation for such an extensive authorship.

Manuscripts submitted to *Pulmonology* must conform to the recommendations indicated here and must be accompanied by a covering letter. The Editorial Board will acknowledge receipt of manuscripts, supplying information as to the orientation category given to the relevant article. Whenever there are editorial recommendations to changes to the manuscripts sent, the authors should supply a new version with an explanation of changes made. Correspondence between the authors and the journal should be conducted electronically, by the Elsevier Editorial System (<http://ees.elsevier.com/rpp>).

BEFORE YOU BEGIN

Ethics in publishing

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