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Livros:
1. Rodrigues RH, Pereira J, Ferreira RL. A semiologia médica. 3ª ed. Rio de Janeiro: Medica-rio editores; 2000.

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Editorial

Max Kopti Fakoury[1] e Mario Barreto Corrêa Lima[2]

Nossa Revista vem acompanhando as transformações científicas e de comunicação global, propondo neste ano o desafio de uma edição especial COVID, além da tradicional, com o tema que desafia o mundo e cada um de nós diante de tantas incertezas e com a gigantesca onda de desinformação que acompanha toda a "Pandemia". Sabemos que a medicina é "a Arte da incerteza e a Ciência da probabilidade" em um mundo com pensamentos e desejos imediatistas, que diante de uma nova doença, um vírus, que prejudica diversos sistemas orgânicos, com fisiopatologia não totalmente esclarecida, onde o combate com "antivirais" é incerto e historicamente o bloqueio de uma pandemia viral acontece com as medidas individuais de proteção(máscaras, distanciamento social, higiene nas mãos) até que uma vacina eficaz seja utilizada em larga escala, somos cobrados para entregarmos soluções milagrosas.

As vacinas em fases finais de teste, em tempo recorde com a tecnologia adequada, com a Inglaterra tomando a frente e vacinando em larga escala seu povo... Muitas perguntas ainda a serem respondidas, muita insegurança, muita desinformação... Mas trabalhamos com a ciência das probabilidades e nossa arte é incerta, mas já temos as probabilidades suficientes para o uso, mesmo com as incertezas.

A vacinação é o meio mais seguro e eficaz na prevenção de doenças, capaz de reduzir mortes. Um grupo de pesquisadores da Organização Mundial de Saúde publicou, recentemente, que na década de 1960, morriam 2,6 milhões de pessoas por anos no mundo antes da primeira vacina e depois de mais de 80% da população mundial ser imunizada, o número caiu para 95 mil no ano de 2017, a maioria de menores de cinco anos de idade, falando apenas de vacinação contra sarampo. Sobre o coronavírus, mais um pouco... estamos quase lá.

No começo do ano de 2020, não fazíamos ideia de como iria ser e o pior, se chegaríamos ao final. Perdemos muitos colegas, amigos e o número de mortes no mundo chega em dezembro a quase 2 milhões, sendo que no Brasil as mortes ultrapassaram 180 mil. Todos os profissionais de saúde se tornaram "grupo de risco" e "vetores", estando diante dos dois piores cenários que um ser humano pode passar: "ver alguém morrer sem poder ajudar" e "ver sua vida em risco".

Todos os profissionais de saúde fizeram valer o que há de mais nobre em suas ações e pensamentos, precisamos de respeito e não de desinformação. Olhamos hoje para o número de mortos e lamentamos muito todas as perdas, mas mais ainda os que poderiam ter sido evitadas com menos "desinformação".

A edição Especial COVID -19 foi pensada no modelo "short communications" para dar oportunidades a trabalhos iniciados e que não teriam em 2020 o tempo necessário para conclusão, pois sabemos que a maioria dos autores brasileiros da área da medicina não tem apoio financeiro e são sobrecarregados de atividades assistenciais e precisam um esforço impar para conseguir atender, pesquisar, "ir a bancada", escrever, estudar e cuidar de si; Esperamos que os leitores apreciem os trabalhos. Recebemos e publicamos também a nota do superintendente do Hospital Universitário Gaffreé e Guinle, sobre este momento.

Aproveitamos para agradecer e enaltecer todos os profissionais de saúde (de todos cantos do mundo), que mesmo cansados, continuam; mesmo com tantas perdas, continuam; mesmo adoecendo, continuam; mesmo com tanta desinformação, continuam; mesmo se sentindo culpados por serem "vetores" de alguém que amam, continuam!

Enceramos este editorial com o pedido insistente de que medidas individuais são fundamentais, o usar mascara é dizer que tem amor próprio e o distanciamento é dizer que ama o próximo; São as medidas mais eficazes, para que a ciência das probabilidades (os nossos cientistas) tenham o tempo necessário para apresentarem novas tecnologias em saúde e minimizem mais ainda o sofrimento.

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Efeito da Exposição a Pacientes com Covid-19 no Desempenho Atencional em Funcionários do Hospital Universitário Gaffrée e Guinle

Guilherme J. Schmidt[1], Eelco van Duinkerken[1,2], Carolina R. Mello[3], Paula R. Yuri Fukusawa[4], Denise H. Nicaretta[1], Sergio L. Schmidt[1,4]

RESUMO

Objetivo: Investigar se a exposição a pacientes com COVID-19 poderia alterar o desempenho atencional de funcionários do Hospital Universitário Gaffrée & Guinle. **Método:** Um teste computadorizado de atenção visual foi aplicado em 161 funcionários. Após os critérios de exclusão (uso de medicação psicotrópica), 124 funcionários foram divididos em 2 grupos: Baixa ou nenhuma exposição semanal e alta exposição semanal a pacientes com COVID-19. **Resultados:** O grupo com alta exposição apresentou piora significativa na atenção sustentada (p<5%). **Conclusão:** O pior desempenho na atenção sustentada pode refletir lapsos atencionais, o que poderia aumentar o risco de acidentes de trabalho no grupo de funcionários que trabalham diretamente com pacientes infectados pelo SARS-CoV-2.

Palavras-chave: atenção, variabilidade do tempo de reação, COVID-19.

Effect of Exposure to Covid-19 Patients on Attention Performance in Workers at Gaffrée and Guinle University Hospital

ABSTRACT

Objective: To verify if attention performance was affected by exposure to COVID-19 patients in workers at Gaffrée e Guinle University Hospital. **Method:** A computerized visual attention test was applied to 161 employees. After exclusion criteria (use of psychotropic medication), 124 workers were dichotomized into 2 groups: Low or no weekly exposure (n= 44) and high weekly exposure to patients with COVID-19 (n=80). **Results:** The group with high exposure had poorer attention performance (p<5%). **Conclusion:** The lower performance reflected attentional lapses, which may increase accident risk at work in the group of workers exposed to patients with COVID-19

Keywords: attention, variability of reaction time, COVID-19.

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INTRODUCTION

During the current COVID-19 pandemic, workers in close contact with COVID-19 patients are particularly vulnerable to psychological stress[1]. Previous studies have suggested that individual brain network under acute stress controls the cognitive consequences of threat[2]. Stress responses via catecholaminergic pathways may have selective effects on brain regions that include the temporoparietal and cingulate cortices, amygdala, thalamus, striatum, and the brainstem. Changes in these regions are followed by changes in the executive control network in the prefrontal cortex. These regions are associated with attention performance[3]. Accordingly, Schmidt et al.[4] reported deficits in attention performance under stress. Therefore, attentional impairments would be expected in workers in close contact with COVID-19 patients. However, as far as we know, this issue has not been studied during the current pandemic.

Attentional performance can be measured using computerized Go/No-go reaction-time paradigms[5]. In Brazil, the Computerized Visual Attention Test (CVAT) is validated for clinical use[6]. Schmidt et al.[7], using positron emission tomography, showed that the CVAT activates the prefrontal cortex. Considering the possible effect of stress on the prefrontal cortex, attention deficits would be expected in workers in contact with COVID-19 patients.

Here we aimed to investigate if hospital employees with high exposure to COVID-19 patients showed attentional impairments as compared to those with low exposure.

MATERIALS AND METHODS

This study was approved by the Ethics Committee of the Gaffrée and Guinle University Hospital (Plataforma Brasil CAAE:30547720.3.0000.0008) and was in accordance with the Declaration of Helsinki for medical research involving human subjects. Written informed consent was obtained from all the participants.

Participants

All participants were workers at the University Hospital. Age ranged between 22 to 66 years. Exclusion criteria: Diabetes mellitus; current or previous neurologic disease; and use of drugs that can impair attention, like hypnotic sedative drugs, tricyclic antidepressants, anti-psychotics, muscle relaxants, antihistamines, and glucocorticoids.

Groups were divided accordingly to COVID-19 weekly hours of exposure (< 24 hours, low-exposure; ≥ 24 hours, high-exposure).

CVAT

Participants were seated in front of a laptop computer to allow the dominant hand to be placed over the keyboard. Before each task, the examiner instructed the subject to press the spacebar as fast as possible each time a specific visual target stimulus was displayed on the monitor. The test started with instructions and a practice session. The full version of the CVAT lasts 15 minutes[5,8,9,10]. However, as the present investigation was designed to assess a large number of participants in a short time period, we administered an abridge form of the CVAT (90 seconds). This form had previously been used in elderly[11,12]. It includes 90 trials (80% targets, 20% non-target) with an interstimulus interval of 1 second. The types of measures included omission errors, commission errors, reaction time, and intraindividual variability of reaction times. Participants with less than 50% of correct responses on CVAT were excluded. Response times lower than 150 milliseconds were excluded.

STATISTICAL ANALYSIS

A MANCOVA was performed including all the CVAT variables as dependent variables and exposure to COVID-19 as independent variable (low vs. high exposure). Age and sex were cofactors. In case of a significant overall MANCOVA, post-hoc ANCOVAs of each dependent variable was checked for statistical significance.Significance was set at $p<5\%$. Analyses were performed using SPSS 25.

RESULTS

The continuous visual attention test (CVAT) was administrated in 161 hospital workers. After applying the exclusion criteria, 124 workers were included in this study. There was not significant group difference in mean ages (high-exposure, n=80, Mean= 42.71 years, Standard deviation=10.02 years; low-exposure , n=44, Mean= 39.61 years, Standard deviation=10.68 years).

The percentage of females did not differ (High--exposure=66%; Low-exposure=65%).

Analysis of the raw data showed that the high-exposure group made more errors, had slower response time, and higher variability of reaction time (Table1).

Table 1. Raw scores (CVAT)

	Low Exposure (n= 44)	High Exposure (n = 80)
CVAT Variables	1.77 ± 4.67	3.54 ± 7.40
Omission Errors	14.77 ± 13.55	18.61 ± 13.44
Commission Errors	370.73 ± 36.05	388.26 ± 47.28
Reaction Time (ms)	65.32 ± 17.43	81.20 ± 35.25
Variability of Reaction Times (ms)*	1.60 (0-10)	1.29 (0-21)

Abbreviation: CVAT= Computerized Visual Attention Test. CVAT variables are represented by mean ± standard error of the mean. * represents group differences that reached significant level < 5%.

The overall MANCOVA, after correction for age and sex, was statistically significant (F=2.72, df=4/117, P=0.03). Sex and age also reached significance. Further analysis using post--hoc ANCOVAs showed that the mean intraindividual variability of reaction times of the correct responses was significantly higher in the high exposure group as compared to their counterparts with low exposure to COVID-19 patients (F=6.68, df=1/120, P=0.01). Conversely, group differences in reaction time, omission and commission errors did not reach a significant difference.

DISCUSSION

Hospital employees with a close contact with COVID-19 patients performed worse in the CVAT, particularly in the variability of reaction time. This variable is associated with sustained--attention[8]. Schmidt et al.[4] have described that sustained-attention subdomain can be affected by a stressful situation. One explanation for this phenomenon could be an increased stimulation for the adrenal production of glucocorticoids in stressful situations by the hypothalamic-pituitary axis[14,15]. These glucocorticoids bind into receptors located in the prefrontal cortex[14], a cerebral region that plays a central role in sustained attention control, impairing attentional functioning.

The worse performance in the sustained attention subdomain may reflect lapses in attention[16]. Thus, the group with a higher COVID-19 patient exposition may be at a higher risk of work accidents, including SARS-CoV-2 contamination.

Limitations of this study included unequal sample sizes and the possible influence of other confounding variables, such as, sleep quality and previous COVID-19 infection. As age and sex affected CVAT, further investigation should address this question using samples paired by age and sex including sleep quality and previous COVID-19 infection as covariates. Another limitation is the duration of the test. Although the test allowed 36 to 72 measurements of correct reaction times per participant, the short duration of the CVAT abridged version (90 seconds) may cause a reduction in the total number of errors, as compared to the 15-min version of the test. Thus, it would be of interest to assess performance with the longer CVAT form.

In conclusion, the present data support that hospital workers who are in close contact with COVID-19 patients show lapses of attention.

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Preditores de Sintomas de Ansiedade em Trabalhadores de Hospital Durante a Pandemia de COVID-19

Ana Lúcia Taboada Gjorup[1], Júlio Cesar Tolentino[1], Sergio L. Schmidt[2,3]

RESUMO

Introdução: Em um mesmo individuo, os sintomas de ansiedade (SA) tendem a diminuir com o tempo. Desta forma, o número de sujeitos que mantem SA normalmente diminui ao final do 6º mês. Considerando o alto nível de estresse causado pela pandemia, pode-se especular uma maior prevalência na persistência dos AS por seis meses quando comparada com aquela comumente observada em condições normais. Isto deve ser particularmente acentuado em trabalhadores de hospitais envolvidos com o tratamento da COVID-19. **Objetivos:** 1) Calcular a prevalência da manutenção de SA por mais de 6 meses (iniciando antes da pandemia). 2) Identificar o melhor preditor para a persistência dos SA. **Métodos:** Estudo realizado no Hospital Universitário Gaffrée e Guinle (Brasil). Sexo, idade, nível educacional, afiliação religiosa, bem estar espiritual e SA foram obtidos através de questionários autoaplicáveis. Critérios de exclusão: uso de medicações ansiolíticas, idade>60 anos. **Resultados:** A prevalência dos SA foi de 61.8% (n=86/139). A regressão logística mostrou que a o bem-estar espiritual foi o melhor preditor dos SA. Indivíduos com baixo bem-estar espiritual apresentaram tendência para manterem os SA. **Conclusões:** 1) Grande parte dos trabalhadores do hospital manteve SA durante a pandemia. 2) O bem estar espiritual foi o melhor preditor da persistência dos SA

Palavras-chave: ansiedade, espiritualidade, pandemia, trabalhadores da saúde.

Predictors of Anxiety Symptoms in Hospital Workers During Covid-19 Pandemic

ABSTRACT

Introduction: The number of subjects that maintains anxiety symptoms (AS) usually decreases at the end of the 6th month. During COVID-19 outbreak, the persistence of AS has not been systematically investigated. In epidemic outbreaks, hospital workers (HW) are subjected to stressful situations. **Objectives:** 1) To calculate the prevalence of AS in HW that had persisted for six-months (starting before pandemic). 2) To identify the most reliable predictor for persisted AS (2nd). **Methods:** The study was conducted at Gaffrée-Guinle University Hospital (Brazil). Sex, age, education, religious affiliation, Spiritual-Well-Being (SWB), and AS were obtained through a self-reported questionnaire. Exclusion criteria: use of anxiolytic medications, age > 60 years. **Results:** The prevalence of anxiety symptoms was 61.8% (n=86/139). The logistic regression

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mode showed that SWB was the most reliable predictor of AS. **Conclusions:** 1) A high proportion of HW maintained AS during pandemic. 2) Low SWB was associated with persistence of AS for six months.
Keywords: anxiety, predictors, spirituality, pandemic, healthcare workers.

INTRODUCTION

Anxiety symptoms (AS) are commonly found worldwide[1-3], and were seen to be highly prevalent in healthcare workers in the past viral outbreaks[4]. In 6 months, it would be expected that the number of subjects that maintain AS decreases at the end of the 6th month. In non-epidemic situations, reliable predictors of AS have been described, such as, sex, educational level, and age[1,2]. In particular, AS have been reported during the current COVID-19 pandemic[5]. However, the predictors of persistent AS are poorly studied in the current outbreak.

It would be possible that besides the traditional predictors, others could influence the AS during the new coronavirus outbreak. In this sense, previous studies have reported a protective effect of Spiritual Well Being (SWB) on AS[6,7]. It is relevant to mention that, the concept of spirituality differs from religiosity or religious affiliation[8,9]. To our knowledge, spirituality has not been studied in the COVID-19 outbreak among hospital workers. The present study aimed to investigate the proportion of hospital workers that have shown AS for 6 months starting before the current pandemic (First Objective). We also investigated which independent variables were reliable predictors for the persistence of AS during the 6th month period (Second Objective). We hypothesized that SWB would be an important predictor for the persistence of the AS during the current pandemic.

METHODS

This study was conducted face to face at Gaffrée Guinle University Hospital in the city of Rio de Janeiro, Brazil, from 12th May to 10th July 2020. The exclusion criteria were: age >60 years, and use of anxiolytic medication. Written formal consent was obtained from each participant (ethical approval: CAAE 30547720.3.0000.00080). They filled a self-reported questionnaire for AS. We also collected information about the predictors, as follows: SWB, age, sex, educational level, and religious affiliation.

Spiritual Well-Being was assessed using a validated scale entitled "The Functional Assessment of Chronic Illness Therapy-Spiritual Well--being (FACIT-Sp 12)"[10]. To assess religious affiliation, the participants answered a question asking if they were practicing any religion at the moment. Educational level was categorized in secondary (undergraduate) and tertiary (graduate/postgraduate). The anxiety symptom were measured in an all-or-none fashion based on the participant's answer if in the past six months he (or she) felt overly concerned, restless, and/or anxious about various problems in everyday life.

STATISTICAL ANALYSIS

Binominal logistic regression was performed to predict whether the participants could be correctly classified according to AS from Sex, Age, Educational Level, Religion Affiliation, and Spiritual Well-Being. The Nagelkerke R square value was calculated to estimate the explained variation in the dependent variable. The Wald test was used to determine statistical significance for each one of the predictors.

SPSS Statistics for Windows, version 24.0 (SPSS Inc., Chicago, IL) was used for analysis, and the significance level was set at $p < .0.5$.

RESULTS

From the initial random sample of 161 hospital employees, 139 workers were eligible to be included in this study (84.9% healthcare workers n=118). The age ranged from 22 to 60 years (M= 41.3, SD= 9.9), 68.3% (n=95) females.

The prevalence of anxiety symptoms was 61.8% (n=86). The logistic regression model was statistically significant [$\chi 2$ (27.62), $p<0.01$] using as predictors age, sex, education level, religious affiliation and FACIT-Sp score. The model explained 25% (Nagelkerke R2) of the variance and correctly classified 69.8% of cases. The Wald test indicated that only the FACIT-Sp score added significantly to the model (Wald=12.342, df=1, $p<0.001$, Exp (B)=0.894, 95% CI: 0.839-0.951).

DISCUSSION

Our results indicate that a high proportion of hospital workers maintained the AS that had started before the pandemic. SWB was the most reliable predictor of AS. Higher SWB was found to protect against to AS.

We found a 61.8 % prevalence of persistent AS. Accordingly, previous investigations have reported a significant elevation of COVID-19 related anxiety as compared to the global prevalence of AS out of epidemic outbreaks[11].

Our result may reflect that hospital workers are particularly vulnerable to AS during COVID-19. As our sample included healthcare and non-healthcare workers, future investigations should be conducted to evaluate the predictors of AS in both subsamples.

SWB was found to be the best predictor of the persisted AS. Spirituality, independent of religious practice, has been directly linked to psychological resilience[12,13]. This could explain the protection of SWB on the AS.

CONCLUSIONS

A high proportion of hospital workers maintained their AS during pandemic (1st objective). SWB was found to be highly associated with the persistence of AS (2nd). A lower SWB indicates a higher probability of keeping AS for more than 6 months.

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Análise dos Sintomas de Episódio Depressivo Maior na Pandemia de COVID em funcionários de hospital universitário do Rio de Janeiro

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RESUMO

O objetivo da presente avaliação foi verificar a prevalência dos sintomas somáticos e afetivos em indivíduos rastreados para depressão maior (EDM) durante a pandemia da COVID-19. O estudo foi conduzido em funcionários do Hospital Universitário Gaffree e Guinle, Rio de Janeiro, Brasil. Os participantes foram submetidos ao rastreio de depressão pelo PHQ9. Pela resposta aos itens deste questionário foi possível diferenciar os sintomas depressivos entre somáticos e afetivos. O rastreio para EDM foi positivo em 46 participantes (29,1%). O estudo em questão demonstra alta prevalência de sintomas de depressão em profissionais de saúde durante a COVID-19. Sintomas somáticos associados foram mais frequentes, o que chama atenção para o maior risco cardiovascular nesta amostra.

Palavras-chave: depressão, pandemia, COVID-19.

Symptoms analysis of a major depressive episode in the COVID pandemic of University Hospital Staff in Rio de Janeiro

ABSTRACT

In order to verify the prevalence of somatic and affective symptoms in individuals screened for major depression (MDE) during the COVID-19 pandemic. The study was conducted on employees of the University Hospital Gaffree e Guinle, Rio de Janeiro, Brazil. Participants underwent screening for depression by PHQ9. By answering the items in the questionnaire, it was possible to differentiate depressive symptoms of depression in health professionals during COVID-19. Screening for EDM was positive in 46 participants (29.1%). The study in question shows a high prevalence of symptoms of depression in health professionals during COVID-19. Associated somatic symptoms were more common which calls attention to the higher cardiovascular risk in this sample.

Keywords: depression, pandemic, COVID-19.

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INTRODUCTION

Depression is a common clinical syndrome with a chronic and recurrent course which has an estimated lifetime prevalence of 10% of the population1. In situations like the COVID-19 pandemic, there is a significant increase in the prevalence of depression symptoms, particularly in health workers[2,3].

The diagnosis of depression is currently based on the classification of the Diagnostic and Statistical Manual 5 (DSM-5)[4]. The Patient Health Questionnaire-9 (PHQ-9)[5] can be used to assess and screen the symptoms of such a mental disorder.

A recent PHQ-9 factorial analysis revealed that depressive symptoms can be grouped into two dimensions (somatic and affective)[6].

According to Tolentino and Schmidt, the predominance of somatic symptoms characterizes moderate depression[7].

The present study aimed to investigate the prevalence of depressive somatic and affective symptoms during the COVID-19 pandemic among hospital workers.

MATERIALS AND METHODS

A cross-sectional study was carried out among healthcare workers at the Gaffrée Guinle University Hospital in the Rio de Janeiro city, Brazil, from May 12 May and July 10, 2020.

The initial sample consisted of 158 individuals.

Written formal consent was obtained from each participant (ethical approval: CAAE 30547720.3.0000.00080). They filled a self-reported questionnaire that consisted of sociodemographic items and depression assessment.

The symptoms of depression were assessed using the PHQ-9 Inventory, which had its validity tested at different levels of health care and is a relatively fast application tool, containing nine questions. Somatic symptoms are as follows: difficulty sleeping, changes in appetite, worsening concentration, fatigue and psychomotor disorders. Non-somatic or affective ones are negative feelings of lesser value, anhedonia and suicide.
The screening was considered positive in the presence of five or more symptoms, provided that at least one is depressed mood or anhedonia, and that each symptom corresponds to answer 2 or 3 ("a week or more" and "almost every day", respectively), with the exception of the suicide symptom, for which any value from 1 to 3 ("less than a week", "a week or more" and "almost every day", respectively) is acceptable.

For the analysis of the symptoms of depression, each item in the PQH-9 was scored as all (1) or nothing (0). Zero was considered to be the person who did not have the symptom or who had less than half the days in 2 weeks. Score 1 was considered for those who had symptoms for more than half the days or every day in the period of 2 weeks. As there are 5 somatic questions and 3 affective questions, the average scores of the items were measured to define somatic or affective depression. We consider depression to be predominantly somatic when the average scores of somatic items were higher than affective ones, and vice versa for predominantly affective depression.

STATISTICAL ANALYSIS

Quantitative variables are reported as absolute and relative frequencies, means, and standard deviations. SPSS Statistics for Windows, version 24.0 (SPSS Inc., Chicago, IL) was used for analysis.

RESULTS

Of the 158 patients evaluated, age ranged between 25 and 61 years (mean = 39.82; standard deviation 10.03). Most of the participants (34 individuals, 73%) were female. Screening for EDM was positive in 46 participants (29.1%).

Somatic symptoms predominated in individuals with positive screening for EDM (n = 34, 73%). Twelve individuals (27%) had a predominance of affective symptoms. Thirty-nine participants (84%) had sadness, a symptom that scores as both somatic and affective.

Among the somatic symptoms, 41 (89.1%) of the individuals reported insomnia, 40 (86%) fatigue, 32 (69%) with altered appetite, 32 (69%) with difficulty concentrating and 21 (45%) with psychomotor agitation or delay. Regarding affective symptoms, 39 participants (84%) had anhedonia, 28 (60%) feelings of low self-esteem and 10 (21%) suicide.

DISCUSSION

From the studies accomplished, a high prevalence of major depressive episode in the pandemic was detected, in comparison to the

available literature.

From the studies accomplished, a high prevalence of major depressive episode in the pandemic was detected, in comparison to the available literature.

In the studied group, a high number of individuals with sleep disorders stands out. The relationship between poor sleep quality and depression is well defined. There was a high prevalence of anhedonia which is peculiar to MDE during the COVID 19 pandemic in this sample.

The difference among the symptoms of depression makes it possible to assess the severity of depression and allows establishing a relationship to cardiovascular risk, since the predominantly somatic MDE is associated with a higher prevalence of autonomic disfunction. The occurrence of moderate depression in greater quantity in the studied population suggests a higher cardiovascular risk.

Among the study's limitations, there is a small sample and a high number of female individuals.

CONCLUSION

The study in question shows a high prevalence of symptoms of depression in health professionals during COVID-19. Associated somatic symptoms were more frequent.

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Há um Aumento na Prevalência da Dor Crônica Durante a Pandemia da COVID-19?

Vithória Vidotti Neves[1], Julio Cesar Tolentino Junior[1], Sergio L. Schmidt[2,3]

RESUMO

The COVID-19 outbreak could lead to worsening chronic pain (CP) and even the development of new pain cases. The objective of this study was to make a mini-review CP prevalence during the pandemic. Peer-reviewed scientific articles, including reviews and case reports, were researched. In the following bases: MEDLINE/Pubmed, EMBASE e Google Academic. Gray literature was also searched, including: Google Academic, bioRxiv and medRxiv. Search period: from February to October 2020, using the search terms ("chronic pain" AND "coronavirus" OR "COVID-19"). In one survey conducted by the Spanish Pain Society, 57% (151/264) of participants reported worsening CP during the pandemic. However, they did not investigate new cases of pain during this period. To our knowledge, this is the first review in on CP prevalence during the COVID-19 outbreak. Although an increase in CP prevalence would be expected, we have not found any study on this subject.

Palavras-chave: dor crônica, COVID-19, prevalência.

Is there an Increase in the Chronic Pain Prevalence During the COVID-19 Pandemic?

ABSTRACT

The COVID-19 outbreak could lead to worsening chronic pain (CP) and even the development of new pain cases. The objective of this study was to make a mini-review CP prevalence during the pandemic. Peer-reviewed scientific articles, including reviews and case reports, were researched. In the following bases: MEDLINE/Pubmed, EMBASE e Google Academic. Gray literature was also searched, including: Google Academic, bioRxiv and medRxiv. Search period: from February to October 2020, using the search terms ("chronic pain" AND "coronavirus" OR "COVID-19"). In one survey conducted by the Spanish Pain Society, 57% (151/264) of participants reported worsening CP during the pandemic. However, they did not investigate new cases of pain during this period. To our knowledge, this is the first review in on CP prevalence during the COVID-19 outbreak. Although an increase in CP prevalence would be expected, we have not found any study on this subject.

Keywords: dor crônica, COVID-19, prevalência.

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INTRODUCTION

Chronic pain (CP) has been highlighted as one of the most prominent causes of disability worldwide. It is defined as pain that persists after the normal period for lesion healing and continues for at least three months[1]. As described in other countries, CP is highly prevalent in Brazil[2]. Additionally, it is well known that psychosocial stressors increase CP's prevalence[3].

In this sense, the current COVID-19 outbreak has many characteristics that could lead to the worsening of CP and even the development of new pain cases. Therefore, an increase in the CP rate would be associated with the current pandemic advent. The present study aimed to review the literature on CP prevalence during the COVID-19 outbreak.

METHODS

Search Strategy

Studies were obtained by searching for original articles, editorials, reviews, correspondence and case-report studies. The search was performed in MEDLINE/Pubmed, EMBASE and Google Scholar from February to October 2020, using the search terms ("chronic pain" AND "coronavirus" OR "COVID-19"). In addition, non-peer-reviewed articles were also searched in the following bases: bioRxiv, medRxiv and Google Scholar. The reference lists of the selected studies were examined for further relevant studies. We did not apply any language restrictions to our search. Studies with CP related to COVID-19 as part of a postviral syndrome or the result of viral-associated organ damage were excluded.

RESULTS

In MEDLINE/Pubmed and EMBASE databases, 16 studies[4-19] met the inclusion criteria (table I). Thirteen reports were published in English and three in Spanish.

We included 6 reviews, 5 editorials and 3 letter to the Editor. Javed et al. (2020)[4] speculated that psychological impact and social isolation could favor the CP exacerbation. However, we did not find any peer reviewed article that favored this hyphothesis.

Table 1

Authors	Type of study
Javed et al.[4]	Editorial
Clauw et al.[5]	Review
El-Tallawy et al.[6]	Review
Shanthanna et al.[7]	Review
Karos et al.[8]	Review
Piraccini et al.[9]	Letter to the Editor
Spanish Pain Society[10]	Gray Literature
Kemp et al.[11]	Editorial
Eccleston et al.[12]	Review
Lambert, David.[13]	Letter to the Editor
Jha et al.[14]	Letter to the Editor
Segura, J.A.[15]	Editorial
Vasconcelos, A.[16]	Editorial
DeSantana JM.[17]	Editorial
Fallon et al.[18]	Literatura Cinza
Gharaei et al.[19]	Revisão

We found only one study published in the bioRxiv. Fallon et al. (2020) investigated how lockdown restrictions in the United Kingdom impacted individuals with CP (n = 431) compared to a healthy control group (n = 88). This study revealed an increase in the subjective perception of pain during the lockdown period. The researchers did not examine the CP prevalence during the current pandemic[18].

We also found one survey conducted by the Spanish Pain Society[10]. In this survey, most participants (57%, 151 out of 264) responded

that the perception of pain was worse in pandemic as compared to the perception before the pandemic. However, they did not report the rate of CP new cases during the pandemic.

DISCUSSION

The present review sheds light on the importance of new studies on CP prevalence in the COVID-19 outbreak. Although an increase in the pain prevalence would be expected, we have not found any refereed study on CP prevalence during the current pandemic. Further investigation should be performed using a broader search to confirm this result.

The COVID-19 causes devastating psychosocial effects and health problems such as stress, anguish, fear, anxiety, depressive symptoms, sleep disorders, denial, anger, frustration, and distrust[3,4]. Studies are needed to examine whether these factors could impact the CP rate during the pandemic.

To our knowledge, this is the first review on the CP prevalence during the COVID-19 outbreak. Further investigations should be conducted using a broader search in order to confirm this finding.

CONCLUSION

Our preliminary literature search indicated a lack of systematic studies on CP prevalence during the current COVID-19 pandemic.

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Covid-19 Causa Alterações Atencionais a Longo Prazo

Aureo do Carmo Filho[1], Eelco van Duinkerken[1,2], Sergio Luis Schmidt[1]

RESUMO

Introdução: Alterações atencionais relacionadas a COVID-19 foram relatadas em poucos estudos até agora, mas ainda não está claro se estas alterações, presentes na fase aguda da doença, regridem ou persistem por longo prazo. **Métodos:** Estudo transversal com pacientes egressos da Unidade Covid do Hospital Universitário Gaffrée e Guinle, com pesquisa positiva para RT-PCR em amostra de swab de nasofaringe para SARS-Cov-2. Pacientes e controles foram submetidos a um teste computadorizado de atenção que fornece número de erros de omissões e comissões bem como tempo de reação e sua respectiva variabilidade. **Resultados:** Pacientes com COVID-19 apresentaram resultados piores que o grupo controle. As diferenças nos números de omissões e comissões não mostraram uma magnitude de importância neuropsicológica, entretanto, as médias dos tempos de reação e da variabilidade dos tempos de reação dos pacientes foram significativamente maiores. **Conclusões:** Nossos achados indicam que há comprometimento atencional em pacientes graves e críticos com COVID-19 três meses após a alta hospitalar. São necessários estudos longitudinais com testagens periódicas para melhor avaliação da evolução do comprometimento atencional em pacientes acometidos pela COVID-19.

Palavras-chave: COVID-19, atenção, testes neuropsicológicos.

Covid-19 Leave Long-Term Attention Impairment

ABSTRACT

Introduction: Attentional impairment related to COVID-19 have been reported in few studies so far, but it is still unclear whether these changes, present in the acute phase of the disease, regress or persist for the long term. **Methods:** Cross-sectional study with patients discharged from the Covid Unit of the Hospital Universitário Gaffrée e Guinle, with positive research for RT-PCR in a nasopharyngeal swab sample for SARS-Cov-2. Patients and controls underwent a computerized attention test that provides a number of errors of omissions and commissions, as well as reaction time and their respective variability. **Results:** Patients with COVID-19 showed worse results than the control group. Group differences in the numbers of omissions and commissions did not reach significance. However, group differences reached statistical significance for reaction times and variability of the reaction times. **Conclusions:** Our findings indicate that there is an attentional impairment in critically ill patients with COVID-19 three months after hospital discharge. Longitudinal studies with periodic attention tests are necessary to better assess the evolution of the deficits in patients affected by COVID-19.

Keywords: COVID-19, attention, neuropsychological tests.

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INTRODUCTION

Previous studies have reported a wide spectrum of signs and symptoms associated with COVID-19. More than 35% of patients present neurological symptoms. It has been proposed that these symptoms were related to cerebral hypoxia resulting from respiratory failure[1].

Attentional impairment has been reported in COVID-19 patients[2,3], but it is still unclear whether these changes, persist for a long term.

Here, we assessed attentional performance 2-3 months after severe/critical symptoms of SARS-Cov-2 infection.

METHODS

Participants: Observational, cross-sectional study with 20 patients discharged from the Covid Unit of the Gaffrée and Guinle University Hospital, with positive RT-PCR for SARS--Cov-2. The control group was composed of 28 asymptomatic and known to be negative for PCR research for SARS-Cov-2.

They agreed to participate in this study and signed an Informed Consent. This research was approved by the institution's Research Ethics Committee.

Exclusion criteria: Patients with dementia, > 60 years of age, and those with history of altered mental status. We also excluded patients who showed an altered breathing pattern in the last 7 days preceding the outpatient consultation. Procedures: The individuals were submitted to an interview to collect demographic and epidemiological data. At the same time, the computerized visual attention test (CVAT) was performed. COVID-19 group was evaluated 80 to 90 days after hospital discharge. Control group was tested from June to August/2020.

The CVAT is validated in Brazil. It is independent of the educational level and has no learning effect upon retests. It is a go/no-go test in which alternate figures (targets or non-targets) are randomly presented on the computer screen. The subjects must press the space key on the keyboard, as quick as possible, each time the target is shown. Then, the number of omission errors (times when the participant fails to activate the keyboard when the target appears), commission errors (activation of the keyboard when the non-target appears), average reaction time for correct responses and variability of correct reaction times. It lasts 90 seconds and has already been applied in different clinical situations[4-9].

Group differences were analyzed analyzed with the use of a Multivariate analysis of covariance (MANCOVA) followed by ANCOVAs (univariate analysis of covariance).

RESULTS

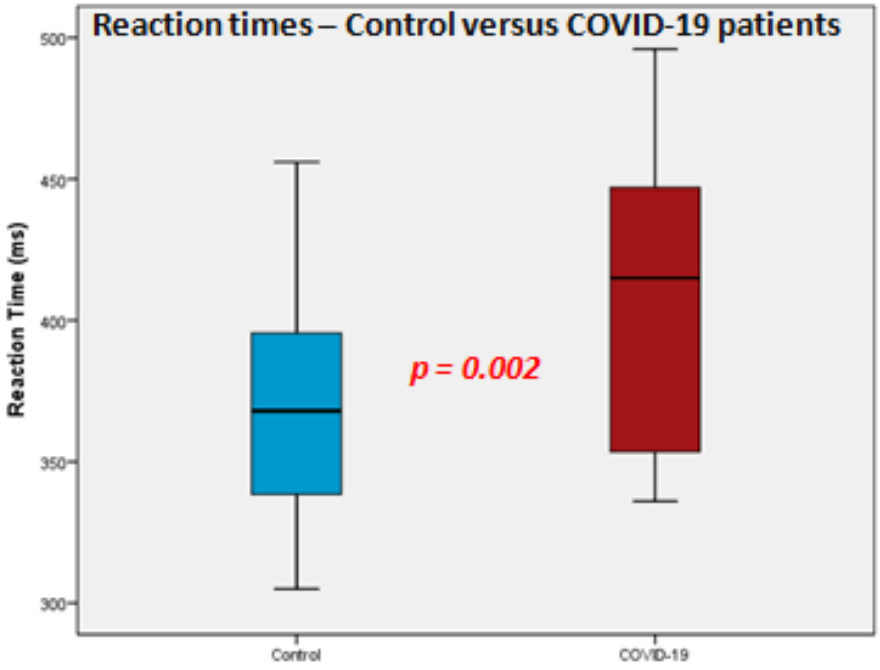
Our sample was initially composed of 25 patients. One patient was excluded from the study for presenting the diagnosis of dementia and another 4 for being over 60 years of age. The control group consisted of 28 individuals.

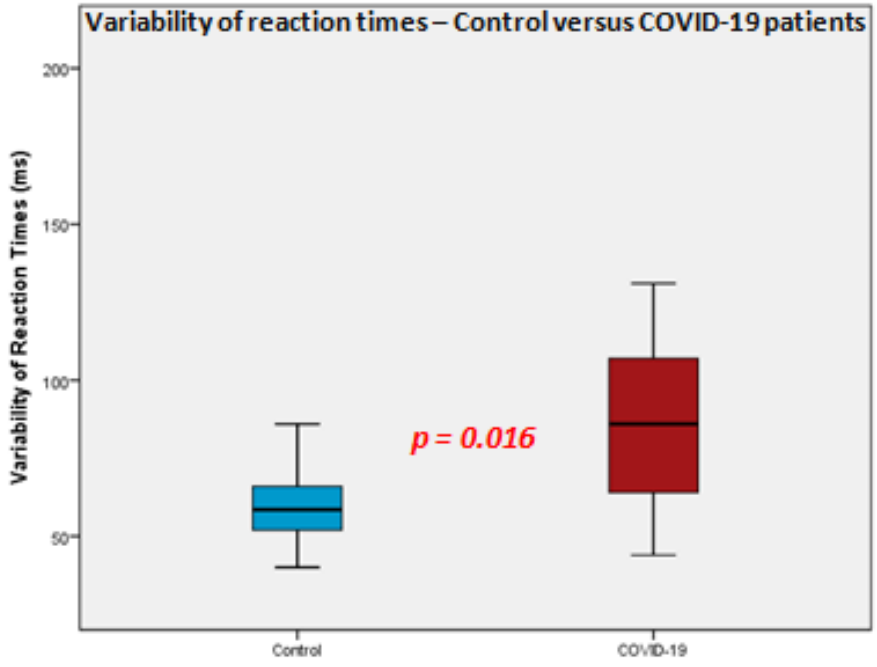
The female gender was the majority in both groups and the age ranged from 22 to 60 years (Table 1). For all the variables of the CVAT, COVID-19 group performed poorer when compared to control group (Table 1). The overall MANCOVA, after correction for age and sex was statistically significant ($F = 2.84$, $df = 4/41$, $P = 0.036$), which indicated that at least one variable was different between the groups. Further analysis using post-hoc ANCOVA showed that the mean intraindividual variability of reaction times for the correct responses was significantly higher in the COVID-19 group (92.05 ± 36.12 ms versus 62.86 ± 15.53 ms, $F = 10.74$, $df = 1/44$, $P = 0.002$) as well the Reaction time (406.65 ± 52.83 vs. 367.96 ± 38.22ms, $F = 6.25$, $dF = 1/44$, $P = 0.016$) (Figure 1). Group differences in the total number or commission and omission errors did not reach significance.

Table 1. Groups characteristics

	COVID-19	Control	p
Age	39.4 ± 9.8	45.4 ± 8.8	0.549
Sex (female/male; %female)	12/8 (60)	28/20 (71.4)	0.150
Reaction time (ms)	406.65 ± 52.83	367.96 ± 38.22	**0.002**
Variability of reaction time (ms)	92.05 ± 36.12	62.86 ± 15.53	**0.016**
Omission errors (min-max)	1.60 (0-10)	1.29 (0-21)	0.842
Comission errors (min-max)	2.95 (0-10)	2.21 (0-10)	0.318

Figure 1. Boxplot graphs of the mean reaction time of the correct responses and mean variability of all reaction times of the correct responses. Blue boxes depict control group and red boxes represent COVID-19 patients





DISCUSSION

Attentional impairment was described in COVID-19. This is the first description of later attention deficits in patients who required hospitalization in intensive care (severely and / or critically ill patients).

The attention test was done in our patients about 3 months after their discharge. We observed a higher reaction times and variability of reaction times in COVID-19 patients as compared to the control group.

One limitation of our study is the statistical power due to the small sample size. A second limitation was the absence of attentional assessments during the patients' hospitalization, which would allow a better comparison of the attentional performance during the evolution of the disease.

CONCLUSIONS

Our findings suggest that attentional impairment persists even 3 months after the acute phase of COVID-19 in severe and critically ill patients.

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Manifestações Otorrinolaringológicas na COVID-19

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RESUMO

Proposta: O acometimento das vias aéreas superiores pelo novo coronavírus torna importante a análise das manifestações otorrinolaringológicas(ORL) na COVID-19. Então, foi feita avaliação da frequência absoluta dos sintomas ORL nos pacientes adultos infectados pelo SARS-CoV-2. **Métodos:** Foram buscados artigos nas plataformas PubMed, SciELO e LILACS utilizando-se palavras chaves relacionadas a alterações otorrinolaringológicas e COVID-19. **Resultados:** Foram escolhidos e usados 17 artigos como fonte de dados para a revisão. Totalizaram-se 2.371 pacientes testados positivos para COVID-19 (54,7% do sexo feminino). Desses, 49,5% apresentaram disfunção de olfato e/ou paladar, 27,7% odinofagia, entre 17,2% e 18,5% congestão nasal, 16,8% disfagia e entre 14,6% e 15,8% rinorreia. Demais sintomas ORL estiveram presentes em porcentagens menores que 15% cada. **Conclusão:** A disfunção de olfato e/ou paladar e a odinofagia foram manifestações de maior ocorrência. Entretanto, verificou-se a presença de outros sintomas otorrinolaringológicos que podem estar associados à COVID-19. Estes sintomas poderiam alertar o médico generalista sobre a possibilidade de infecção pelo SARS-CoV-2, mesmo na ausência das manifestações comuns da doença.

Palavras-chave: otolaringologia, sinais e sintomas, SARS-CoV-2.

Ear, Nose and Throat Manifestations at COVID-19

ABSTRACT

Purpose: The involvement of the upper airways by the new coronavirus makes the analysis of ear, nose and throat (ENT) manifestations important in COVID-19. Thus, an evaluation was made of the absolute frequency of ENT symptoms in adult patients infected with SARS-CoV-2. **Methods:** Articles were searched on the plataforms PubMed, SciELO and LILACS, using keywords related to ENT outcomes and COVID-19. **Results:** Seventeen articles were chosen and used as database to the review. 2,371 pacients tested positive to COVID-19 (54.7% female). Of these, 49.5% presented olfatory and/or gustatory disfunction, 27.7% odinophagy, between 17.2% and 18.5% nasal congestion, 16.8% dysphagia and between 14.6% and 15.8% rhinorrea. Other ENT symptoms were presented in percentages fewer than 15% each.

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Conclusion: Olfatory and/or gustary disfunction and odinophagya were the manifestions with highest occurence. However, other ENT symptoms that may be associated with COVID-19 were found. These symptoms could alert the general practitioner about the possibility of SARS-CoV-2 infection, even in the absence of the common manifestations of the disease.
Keywords: otolaryngology, signs and symptoms, SARS-CoV-2.

INTRODUCTION

The Coronavirus Disease 2019 (COVID-19) has several clinical manifestations, which occur in different forms and degrees of severity[1,2]. The most reported symptoms are fever, cough and fatigue[3-8].

Viral involvement of upper respiratory system has led researchers to study ENT disorders at COVID-19, demonstrating the importance of symptoms such as rhinorrhea, nasal obstruction, otalgia, cochlear-vestibular and chemosensory changes, odynophagia and dysphagia[9-17].

OBJECTIVES

To evaluate the absolute frequency of ENT symptoms in adult patients infected with SARS-CoV-2.

METHODS

Articles published until August 30, 2020, were collected in the PubMed, SciELO and LILACS. Keywords ENT, ENT manifestations, ORL, ORL manifestations, otorhinolaryngology, otorhinolaryngologic manifestations, ear, nose, throat, laringe, larynx, laringea, pharinge, pharynx, nasal, nasal obstruction, runny nose, rhinorrhea, sore throat, pharyngalgia, sinusitis, pharyngitis, voice disorder, hoarseness, hearing loss, deafness, tinnitus, ear ache, otalgia, smell dysfunction,anosmia, dysgeusia, hyposmia, smell and taste were searched using connective "OR" and associated with "AND" to COVID,COVID-19,coronavirus, SARS-CoV-2 and 2019-nCoV.

Articles with full available text were selected. Inclusion criteria were: written in English or Portuguese; indicate the individuals' ENT symptoms; not only presenting serious and/or critical patients; a minimum of 50 patients and be a cohort, cross-sectional or case series study.

Exclusion criteria: absence of testing for SARS-CoV-2; failure showing the number of people affected by the symptoms; age below 18 years; patients with impaired sense of smell and/or taste as an inclusion criterion in the study; dysfunction of smell and/or taste as the only ENT symptom and studies with the same data source in the same period of time.

RESULTS

Seventeen articles were selected, the analysis included 2,371 patients, 54.7% female (Table 1). The distribution of ENT symptoms and specific details of manifestations in the sense of smell and taste are described, respectively, in tables 2 (two parts) and 3.

Table 1. Characteristics of the articles

Author	Location	Number of pacients	Male	Female
Shahriarirad et al.[18]	Iran	113	71	42
Biadsee et al.[19]	Israel	128	**58**	**70**
Chary et al.[20]	France	115	**34**	**81**
Mohamud et al.[21]	Somalia	60	**42**	**18**
S. Bastrup Israelsen et al.[22]	Denmark	175	**85**	**90**
C. Liguori et al.[23]	Italy (Rome)	103	**59**	**44**
Vaira et al.[24]	Italy (Sassari)	72	**27**	**45**
F. Freni et al.[25]	Italy (Messina)	50	30	20
C. Corsini Campioli et al.[26]	USA (Minnesota)	251	103	148
Lan et al.[27]	USA (Massachusetts)	83	23	60
E. Sakalli et al.[28]	Turkey (Istambul)	172	84	88
Salepci et al.[29]	Turkey (Istambul)	223	113	110
Lechien et al.[30]	Spain, Belgium, France and Italy	417	154	263
Xu et al.[31]	China (Guangdong)	90	39	51
Wang et al.[32]	China (Wuhan, Hubei)	138	75	63
Han et al.[33]	China (Wuhan, Hubei)	108	38	70
Zheng et al.[34]	China (Shiyan, Hubei)	73	40	33
	Total	2.371	1.075	1.296
	(%)		45.3%	54.7%

Table 2. ENT symptoms: part one

Symptons	Smell and / or taste dysfunction	Xerostomy	Rhinorrea	Nasal congestion/ obstruction	Sneeze	Need to blow the nose	Postnasal drip	Rhinitis	Otalgia
Author									
Shahriarirad et al.[18]			26						
Biadsee et al.[19]	153	72	34	29					
Chary et al.[20]	83							**25**	
Mohamud et al.[21]	41								
S. Bastrup Israelsen et al.[22]	5								
C. Liguori et al.[23]	88								
Vaira et al.[24]	53		13	11					
F. Freni et al.[25]	46	25	40	45			30		15
C. Corsini Campioli et al.[26]	86								
Lan et al.[27]	13			29					
E. Sakalli et al.[28]	97		66	92	75	51	51		35
Salepci et al.[29]	148		26	37					6
Lechien et al.[30]	362		141	195			117		62
Xu et al.[31]									
Wang et al.[32]									
Han et al.[33]									
Zheng et al.[34]									
Total	1.175	97	346-375a	409-438 a	75-104 a	51	198	25	118
(%)	49.5%	4.1%	14.6-15.8%	17.2-18.5%	3.2-4.4%	2.1%	8.3%	1.0%	5.0%

[a]In the following article, there was no separation between the symptoms rhinorrhea, nasal obstruction and sneezing; therefore, the possibility of having a greater or lesser number of total patients with each of these symptoms was taken into account in the total.

Table 2. ENT symptoms: part two

Symptoms	Plugged ear sensation	Hearing dysfunction	Vestibular disorder	Face pain	Chewing muscle myalgia	Dysphonia	Odinophagy	Dysphagia	Dry throat
Author									
Shahriarirad et al.[18]							36		
Biadsee et al.[19]				18	15		34		
Chary et al.[20]							21		
Mohamud et al.[21]							15		
S. Bastrup Israelsen et al.[22]							31		
C. Liguori et al.[23]		2	27						
Vaira et al.[24]							37		
F. Freni et al.[25]				30		7	27	46	
C. Corsini Campioli et al.[26]			28				79		
Lan et al.[27]							38		
E. Sakalli et al.[28]	31		29	43			86		
Salepci et al.[29]		2	5	24			58		36
Lechien et al.[30]				153			129	353	
Xu et al.[31]							23		
Wang et al.[32]			13				24		
Han et al.[33]							14		
Zheng et al.[34]				1			6		
Total	31	4	102	269	15	7	658	399	36
(%)	1.3%	0.2%	4.3%	11.3%	0.6%	0.3%	27.7%	16.8%	1.5%

Table 3. Description of smell and taste disorders

Articles	Smell disorders (S. D.)	Taste disorders (T. D.)
Biadsee et al.[19]	86	67
	19.5% of patients with S. D. had anosmia.	52 patients showed changes in the perception of spicy taste, 54 in salty taste, 53 in sour taste and 61 in sweet taste.
S. Bastrup Israelsen et al.[22]	-	5
C. Corsini Campioli et al.[26]	45	41
E. Sakalli et al.[28]	88	81
	- 2 patients had mild forms of S. D., 24 had moderate forms and 62 severe forms. - 36% of patients with S. D. had anosmia.	- 72 patients presented T. D. and S.D during the disease. - 11 had a mild form of the T. D., 18 had a moderate form and 52 had a severe form. - 30.2% of patients with T. D. had ageusia.
Chary et al.[20]		83*
	Of the patients with dysfunction of smell and / or taste, there were: 15% only with anosmia, 5% only with hyposmia, 2% only with ageusia, 5% only with hypogeusia, 33% with anosmia and hypogeusia, 32% anosmia and ageusia, 6% hyposmia and hypogeusia, 1% hyposmia and ageusia.	
	There were 4 cases of phantasmia and 5 cases of cacosmia.	There were 4 cases of parageusia and 3 cases of cacogeusia.
Lan et al.[27]		13
	The 13 had ageusia and / or anosmia (15.7% of the total patients studied).	
Vaira et al.[24]	44	39
	34 patients with anosmia, 8 with hyposmia and 2 with dysosmia.	- 28 patients with ageusia and 11 with hypogeusia. - 23 patients with changes in the sensation of sweet taste and 21 in that of sour taste.
	9 patients with isolated T.D., 14 patients with S.D. isolated and 30 patients with dysfunction of smell and taste.	
Salepci et al.[29]	71	77
Lechien et al.[30]	357	342
	284 anosmia and 73 hyposmia There were patients with phantasmia and parosmia.	78.9% with hyposmia and 21.1% with dysgeusia.
	20 patients with S.D. isolated, 5 with isolated T.D. and 337 with S.D. and T.D.	
C. Liguori et al.[23]	40 (hyposmia)	48 (dysgeusia)
F. Freni et al.[25]	46	35
	21 with anosmia and 25 with hyposmia.	8% hypogeusia, 42% ageusia and 16% dysgeusia.
Mohamud et al.[21]	24	17

*No separation between smell and taste disorders.

DISCUSSION

ENT symptoms of COVID-19 occur due to nasal and nasopharyngeal involvement, the main entrance sites for SARS-CoV-2[35].The predominant viral presence in the nasal mucosa in relation to the throat[36] highlights the importance of nasal cavity in disease's pathophysiology, allowing the association of symptoms such as rhinorrhea, nasal congestion, sneezing and olfactory and gustatory dysfunction.

The majority of nasal signs and symptoms, excluding smell dysfunction, nasal congestion and rhinorrhea, were not prevalent. Less than 10% of patients were affected by sneezing, need to blow their nose or postnasal drip, while nasal congestion (17.2% to 18.5% of occurrence) and rhinorrhea (14.6% to 15.8% of occurrence) were, respectively, third and fifth most prevalent ENT symptoms.

In a study focused on nasosinusal dysfunction in COVID-19[37], excluding changes in smell, a low significance of nasal symptoms was identi-

fied. This is probably due to the predilection of the virus to olfactory mucosa, due to the presence of Angiotensin-Converting Enzyme 2 (ACE2)[38] in this epithelium, a molecule that facilitates viral invasion. Corroborating this hypothesis, studies report a significant lack of relationship between loss of smell and other nasal symptoms[13] and significant association between non-olfactory nasal symptoms and negative tests for SARS-CoV-2[27].

Smell and taste changes were the most common manifestations (49.5% of complaints). The main reported changes were anosmia, hyposmia, ageusia and hypogeusia, but there were also reports of dysnomy, phantasmia, cacosmia, parageusia, cacogeusia and dysgeusia. In articles with separation between smell and taste, smell dysfunction associated with taste was more present, followed by isolated olfactory dysfunction and isolated taste dysfunction[20,27,28]. These changes are prevalent in mild-to-moderate disease[20] and both can occur simultaneously or at different times of disease[28].

Although the pathophysiology of total or partial loss of smell and taste is incompletely known, it is believed that it can occur by two mechanisms: inflammation in olfactory mucosa causing neuroinflammation of olfactory nerve, or viral invasion of the olfactory nerve[20,38-41]. The injury caused by the virus probably shares characteristics with Wallerian degeneration, in which significant damage to the axon results in its degeneration, removal and recycling. In peripheral nervous system, Schwann cells act in regeneration and recovery of axonal function, however, the injury site is important for restructuring[42]. Thus, the change in smell can have a spontaneous improvement, with an average recovery time of 7.2 days[20], or generate permanent damage, impacting the life quality.

In pharyngological changes, the probable involvement of vagus and glossopharyngeal nerves has been related to the presence of dysphagia or odynophagia[43].Odinophagy was the second most frequent ENT symptom (27.7% of cases) and dysphagia affected 16.8%. These data corroborate previous research with 27.6%[44]/26.9%[11] of patients presenting odynophagia, with significant prevalence in youth[44] and sometimes being the initial symptom[29].

Less than 1% of patients were dysphonic or aphonic. However, a study of 702 Europeans with mild-to-moderate COVID-19[45], showed 26.8% dysphonic, with 3.7% having aphonia. Other research has identified vocal dysfunction as a relevant prevalence symptom, with a range from 14%-8.4%[16,25,46]. Such outcomes indicate that laryngological symptoms may have been overlooked in analyzed studies.

Otological manifestations were not prevalent, being otalgia the most reported symptom (5%). However, previous studies reported 74.5%[30] and 32.9%[16] of occurrence. Vestibular disorders were present in 4.3% of the population, while sensation of plugged ear and hearing impairment affected 1.3% and 0.2% of patients, respectively.

Underreporting of cochleovestibular symptoms can occur because changes in hearing are usually noticed after leaving hospital. According to Kevin J. Munro[47], about one in ten adults reported this change when questioned up to eight weeks after hospital discharge, reducing the ability to analyze and synthesize results.

Hearing loss, tinnitus and vertigo caused by SARS-CoV-2[25,46,48] may occur as deleterious effects on cochlear hair cells[49] or be related to damaged nervous system[48]. However, some drugs prescribed such as Chloroquine and Hydroxychloroquine, have ototoxic effects[50].

Xerostomy (4.1%), myalgia in the chewing muscle (0.6%) and facial pain (11.3%) were identified at low frequency. We can infer that such symptoms are often neglected by patients and interviewers, as they were only addressed in articles that focused on ENT changes, making their accounting difficult.

CONCLUSION

The nose and nasopharynx are the main sites of entry for SARS-CoV-2. In this way, ENT symptoms deserve attention from the general practitioner, as they have an important frequency of occurrence in adults with COVID-19: 49.5% of olfactory/gustatory changes, 27.7% odynophagia, 17.2% -18.5% nasal obstruction, 16.8% dysphagia and 14.6% -15.8% rhinorrhea.

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Nota do Diretor

João Marcelo Ramalho Alves[1]

O HOSPITAL UNIVERSITÁRIO GAFFRÉE E GUINLE E SUA HISTÓRIA DE LUTA CONTRA AS DOENÇAS INFECTOCONTAGIOSAS NO BRASIL

Chego às portas de um imponente hospital, desço de minha charrete, chovia fraco, ainda muito cedo, fazia frio, inverno de 1930, e o cheiro de estrume misturava aos esgotos que corriam pelas ruas. A angústia e insegurança tomava conta de todos. Em mãos, uma carta assinada pelo Dr. Carlos Chagas, Diretor do Departamento Nacional de Saúde Pública, ao Dr. Gilberto de Moura Costa, Diretor do Hospital Gaffrée e Guinle, que me encaminhava ao Serviço de Sífilis Visceral. Sou gentilmente encaminhado ao Instituto de Pesquisa, na parte posterior do Hospital. De lá podia ver os transeuntes na avenida dos Trapicheiros. Fico paralisado ao admirar os vitrais da escadaria principal, era uma homenagem a moderna bacteriologia onde identifiquei as ilustres figuras de Louis Pasteur, Robert Koch e Oswaldo Cruz....

Fazia calor, mês de janeiro de 1988, no Rio era um inferno, há meses percebi que minha saúde estava abalada. Tinha diarreia frequentemente. Mesmo comendo de tudo, só emagrecia. Uma febre persistente não me deixava dormir e, rotineiramente, acordava a noite com os lençóis encharcados de suor. Percebi inúmeras manchas em minha pele, e na última semana durante o banho palpava caroços em meu pescoço.

Comentei com um tio brincalhão que trabalhava em uma farmácia na Penha. Por ser temporão, tinha apenas alguns anos a mais que eu. Ele era o irmão mais novo do meu pai. Falei-lhe dos meus sintomas, que sentia cansaço, falta apetite constantemente, como se estivesse gripado.

Lembro de ele ficar preocupado comigo e fazer várias perguntas: com que eu estava saindo, se estava namorando, se usava drogas e se alguém que eu conhecia tinha os mesmos sintomas. Após nossa conversa ele fez algumas ligações telefônicas. Lembro que ele, por algumas vezes falou: - é meu sobrinho. Você tem que me ajudar, parece que ele estar com "aquela doença" ... Logo após desligar, ele me entrega um cartão. onde dentro havia uma carta ao Professor Mário Barreto Correia Lima, gastroenterologista do Hospital Universitário Gaffrée e Guinle...

Toca o telefone às 23h. Todos em casa exaustos e temerosos. Estamos em maio de 2020. O pior pesadelo de todos os tempos. O mundo mergulhado em uma pandemia. Aa televisão não passa outra coisa: assistimos noticiários nos telejornais mostrando países ricos na Europa como Itália, França, Espanha, Inglaterra e até Estados Unidos com hospitais lotados e número de mortos não para de crescer.

Há duas semanas, apesar de todos os avisos por jornais, revistas, internet e o WhatsApp invadir nossas vidas com notícias desta pandemia, nunca imaginava que chegaria a nos atingir. Continuava a trabalhar como motorista de Uber, após perder meu emprego em uma construtora, a única forma de trazer algum dinheiro para casa foi virar motorista de aplicativo. Meu carro financiado, e logo agora teria que parar? Continuei trabalhando. Há 10 dias percebi que minha garganta arranhava, tive tosse, febre baixa, semelhante a uma gripe que todo ano tenho. Nada grave. Não me preocupei.

Como voltei a morar com meus pais, acabei contaminando minha mãe.

Ela não teve muita sorte, com a perda do meu emprego não consegui mais pagar o plano de saúde. Ficamos dependendo do SUS. Há dois dias, ela ficou muito cansada e a levamos a UPA da Tijuca. Os médicos rapidamente a diagnosticaram como estando com COVID, e não mais podemos ficar junto com ela.

- Alô! Sim, é o Marcos filho de dona Adelaide... ela está bem?

Os segundos entre minha fala e a resposta foram uma eternidade. Culpa, revolta, nervosismo, arrependimento, insegurança... tudo passou por minha mente!

- Senhor Marcos sua mãe está pior. Estamos ligando para informar que ela será transferida para um Leito de CTI COVID, no Hospital Universitário Gaffrée e Guinle na Rua Mariz e Barros, precisamos que o senhor se dirija a nossa unidade da Tijuca para autorizar a transferência...

Se as paredes tivessem ouvidos, se as portas e janelas pudessem falar, milhares de histórias como essas tiveram como protagonista o Hospital Universitário Gaffrée e Guinle.

São heróis anônimos, incansáveis, abnegados, empáticos e dedicados ao extremo em

minimizar o sofrimento. Desde março de 2020 enfrentamos o maior de todos os desafios: enfrentar uma doença infectocontagiosa de dimensões jamais imaginadas, superando todas as expectativas, exigindo todas nossas forças e testando todos nossos limites, resistência e resiliência.

Foram 9 meses que mais parecem 9 anos. Descobrimos talentos. Descobrimos seres realmente humanos. Reunimos forças onde não mais havia esperança, criamos pontes, reforçamos laços, e continuamos na luta.

Não sabemos quanto tempo está pandemia ainda irá interferir em nossas vidas, no nosso trabalho, nas nossas famílias, enfim, de uma coisa tenho certeza: o Hospital Universitário Gaffrée e Guinle estará sempre pronto a enfrentá-la, pois temos guerreiros, temos heróis. Temos fé.

Como Jesus Cristo, Madre Teresa de Calcutá, Irmã Dulce, Confúcio, Gandhi, Buda (Sidarta Gautama), Albert Einstein, Thomas Edison, Louis Pasteur, Nelson Mandela, Martin Luther King, que, cada um a seu modo, dedicaram suas vidas a transformar o mundo em lugar melhor para a humanidade, temos, também aqui, no Hospital Gaffrée e Guinle, nossos heróis anônimos, que arriscam suas vidas literalmente, desde a sua inauguração em 1929, todos os dias, dedicando-se, de corpo e alma, à luta para mitigar o sofrimento alheio, com total empenho em salvar a vida, tanto quando possível, de nossos semelhantes.

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Nota de Agradecimento do Corpo Editorial da Revista Cadernos Brasileiros de Medicina a Fundação de Apoio a Pesquisa, Ensino e Assistência à Escola de Medicina e Cirurgia do Rio de Janeiro e ao Hospital Universitário Gaffrée e Guinle, da Universidade Federal do Estado do Rio de Janeiro - FUNRIO

Rio de Janeiro, 09 de dezembro de 2020.

O conselho editorial da Revista CBM vem por meio desta nota citar alguns fatos relevantes para expressar nossos sinceros agradecimentos a todo conselho executivo da FUNRIO e os demais apoiadores desta nobre instituição.

Ano de 2020, pandemia!!!!

Dois dos maiores traumas que um ser humano pode sofrer é ver alguém morrer sem poder fazer nada ou ter a própria vida em risco, falamos isso, pois é o que todo profissional de saúde está vivendo nesses tempos ainda incertos.

O que faz cada um de nós seguir e dar novo significado as atividades de nossas vidas? Entre tantas, são os exemplos de superação e força que encontramos em nossos caminhos e o apoio de tantos outros próximos ou distantes.

Escrevemos aqui sobre a FUNRIO neste ano, onde todos foram levados ao limite de suas competências e na busca de cumprir seus objetivos estatutários foi formidável em seu apoio e alcance.

O hospital Universitário Gaffrée e Guinle e a Escola de Medicina e Cirurgia da UNIRIO estavam diante do gigante desafio de se organizarem para o enfrentamento da pandemia e encontraram na FUNRIO o apoio de sempre, com toda sobrecarga institucional e individual que estávamos submetidos, o fato de saber que "estávamos juntos" foi de extrema importância para continuar.

O maior exemplo foi o apoio irrestrito ao HUGG para a construção do setor de atendimento dos pacientes com COVID-19, o que ganhou o nome de Setor Covid do HUGG, sendo inaugurado em abril de 2020 e em funcionamento pleno. O tempo para realização e adequação do setor era muito curto e sem o apoio administrativo e financeiro da FUNRIO e de todos os envolvidos naquele trabalho não teria acontecido.

Ao garantir a assistência no HUGG, garantiu o ensino, à pesquisa e projetos de extensão, objetivo estatutário mais importante da FUNRIO.

FUNRIO, parceira e apoiadora de nossa revista, os nossos mais sinceros agradecimentos.