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Original Article

Attitudes of Patients with Rhinoplasty in Coronavirus (COVID-19) Pandemic: An Online Survey Analysis

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ABSTRACT

Objective: The novel Coronavirus disease 2019 is a world-wide spreading disease emerged with increased perceived danger, uncertainty, and anxiety. In this study we aimed to conduct a survey evaluating attitudes of the patients who underwent rhinoplasty.

Methods: An online form was sent to the patients who have undergone rhinoplasty in the last year. The online survey was conducted between the dates of 1-7 April 2020. All participants were asked to fill the survey within one week.

Results: The link was sent to 201 patients. A total of 165 (82%) participants completed the questionnaire. The majority of the participants were aware of specific precautions, such as social distance and having personal hygiene. They were worried about possibility of having the disease. One-third of the patients reported that they took additional vitamin supplements.

Conclusion: Patients with rhinoplasty had necessary information on preventing COVID-19 pandemics, but were anxious due to disruption of their follow-up.

INTRODUCTION

The novel Coronavirus disease 2019, namely "COVID-19" is a world-wide spreading respiratory system disease and was first defined in December 2019 in Wuhan, in the Hubei province of China.[1] The condition is caused by a highly infectious virus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It is responsible for more than 15.000 deaths all around the world.[2] The case fatality rate of the disease has been reported as 2.3%.[1] After its quick spreading pattern, it has been defined as a pandemic by the World Health Organization (WHO) in March 2020.[3] The main clinical symptoms of the disease were reported as fever, dry cough, fatigue, dyspnea, myalgia, arthralgia, headache, diarrhea, rhinorrhea, and sore throat.[4]

In addition to typical symptoms of the disease, the COVID-19 pandemic has emerged with increased perceived danger, uncertainty, anxiety, and fear of virus transmission. These symptoms may depend on negative news in mass media, social isolation, and loneliness, which could negatively affect individuals' social and occupational functioning and quality of life.[5,6]

In Europe, where the second stop of the disease after Asia, atypical presentation of the virus has been reported by an increasing number of patients with complaints of sudden anosmia, hyposmia, and gustatory dysfunctions in addition to classic symptoms of the COVID-19 infection.[7] In a recent study by Lechien et al.,[7] 85.6% of the patients have presented with olfactory dysfunction, and 79.6% of them were with anosmia.

Rhinoplasty with or without septoplasty is performed to treat respiratory problems or aesthetic concerns.[8] However, it was reported that the patients who had undergone this procedure have an increased olfactory dysfunction risk in their postoperative period.[9] In addition to functional and aesthetic concerns because of the surgery, it can be presumed that patients could have increased anxiety due to the interference of unwilling outcomes of the operation and atypical symptoms of the COVID-19 disease. To date, as

in other patients, patients with rhinoplasty have increased anxiety due to uncertain processes during the epidemic period. But there is no clear information about postoperative management due to insufficient data on the issue.

In this study, we aimed to conduct a survey evaluating attitudes of the patients who underwent rhinoplasty, since there is an urgent need to understand the patients' awareness of the disease to manage future postoperative follow-up during the COVID-19 pandemic.

MATERIALS AND METHODS

Since it was not feasible to do a community-based nationwide survey during this period, we aimed to collect the data via an online survey link. The surgeon's patient network was used, and an online form was sent to the patients who have undergone rhinoplasty in the last year via Whatsapp. The online survey was conducted between the dates of 1-7 April 2020. All participants were asked to fill the survey within one-week period. Ethical approval was obtained from the Institutional Review Board of the local ethics committee of our hospital (IRB:2020/514/176/13).

The questionnaire was comprised of brief information about the background of the disease, objective of the survey, nature of participation, declaration of anonymity, and descriptions for filling the questionnaire. Patients who were >18 years and agreed to participate in the study were instructed to fill the questionnaire via clicking the survey link. Before the filling phase, participants were allowed to quit the survey by clicking a 'Yes-No' question to confirm their voluntariness.

After confirmation of willingness, the participants proceeded to complete the questionnaire. The questionnaire consisted of two parts. The first part was including demographic variables such as age, gender, and marital status. The second part was including 14 questions on a 'Yes/No' basis, developed by the author. The Cronbach's alpha coefficient of the questionnaire was 0.76 in our study which was with an acceptable internal consistency.[10]

Statistical analysis

Data analysis was performed with SPSS (version 20.0; SPSS Inc., Chicago, IL, USA). All continuous data were presented as mean±standard deviation. The categorical variables were presented as numbers and percentages.

RESULTS

In this survey analysis, the link was sent to 201 patients, corresponding inclusion criteria. A total of 165 (82%) participants completed the questionnaire. The mean age of the participants was 27.95±7.2. 20 (12.2%) patients were male, and 145 (87.8%) of them were female. 53 (32%) of them were married, and 112 (67.9%) of them were single. The mean postoperative follow-up period was 4.2±3.5 months. 145 (87.9%) of the patients were operated via open technic, and 20 (12.1%) of them were operated via closed technic. While there were 17 (10.3%) patients using medications due to chronic diseases, 148 (89.7%) of them did not use any drugs. 23 (13.9%) of the patients used nasal spray due to tissue edema after surgery, 142 (86.1%) of them did not need any treatment. During the COVID-19 pandemic period, fifteen (9.1%) patients had a cough, four patients (2.4%) had anosmia, and four (2.4%) patients reported shortness of breath. The questions of the survey and response rates are presented in Table I.

DISCUSSION

To the best of our knowledge, this is the first study carried out in our country evaluating the attitudes of rhinoplasty patients towards the COVID-19 pandemic. The vast majority of the participants were aware of specific precautions such as social distance, having personal hygiene, and hand washing as recommended.[11]

The study population generally held an optimistic attitude towards the COVID-19 pandemic. These results may be due to that patients were mainly aware of the progress of the COVID-19 pandemic by utilizing news from various channels such as social media and mass media. Besides, these participants have the opportunity of active learning of the disease via the official website of the National Ministry of Health.[12]

It was reported that the patients' sensitivity and somatic complaints might increase due to viral infections.[13] However, in our study, pain complaints after surgery were not increased in most of the patients during this period. In a study fulfilled by Wang et al.,[14] they reported that the psychological impact of the COVID-19 disease as moderate-to-severe in more than half of the participants, and one-third of them experienced moderate-to-severe anxiety. In our study, increased anxiety due to the possibility of delay in postoperative follow-up was reported only in a quarter of the patients. Although the patients do not have an increased risk of the COVID-19 disease in the pandemic period compared to non-surgical ones, it was observed that they were worried about possibility of having the disease due to the surgery. This increased anxiety in patients may be due to the proven effect of increased cytokines on stress behaviors.[15]

Vitamins are essential elements of our diet that have known to affect the immune system.[16] It was also reported that especially vitamin C intake may prevent infections caused by bacteria, viruses, and protozoa.[17] Besides, it has suggested that there is a positive association between fruit and vegetable intake and positive immune responses.[18] Predicting that the disease may occur due to a weak immune system, one-third of our study patients reported that they took additional vitamin supplements. At the same time, half of them added immune-boosting fruits and vegetables to their daily diets.

The COVID-19 virus caused an epidemic that spreads rapidly and adversely affects the entire field of life. Wu et

Table 1. The questions of the survey and answers of the participants

Questions	n	%
1. Do you think your risk of COVID-19 is increased compared to those without rhinoplasty?		
Yes	26	15.8
No	139	84.2
2. Do you pay attention to the social distance rule?		
Yes	157	95.2
No	8	4.8
3. Do you pay attention to personal hygiene rules?		
Yes	165	0
No	0	0
4. Did any pain occur in your nose area during the COVID-19 outbreak?		
Yes	6	3.6
No	159	96.3
5. Do you worry about having a recent surgery during the COVID-19 virus outbreak?		
Yes	111	67.3
No	54	32.7
6. Did your treatment disrupt during the COVID-19 outbreak?		
Yes	14	8.5
No	151	91.5
7. Do you worry that your follow-up could be delayed during the COVID-19 outbreak?		
Yes	40	24.2
No	125	75.8
8. Have you considered taking any vitamin supplements during the COVID-19 outbreak?		
Yes	48	29.1
No	117	70.9
9. Have you considered taking any additional fruits or vegetables during the COVID-19 outbreak?		
Yes	83	50.3
No	82	49.7
10. Do you experience any complaints such as fever, cough, shortness of breath, myalgia, loss of smell, and taste?		
Yes	25	15.2
No	140	84.8
11. Did you admit to the hospital due to these complaints during the COVID-19 outbreak?		
Yes	11	6.7
No	154	93.3
12. Did you have to remain in quarantine during the outbreak?		
Yes	27	16.4
No	138	83.6
13. Did you receive any medication due to suspicion/diagnosis of COVID-19 disease?		
Yes	4	2.4
No	161	97.6
14. Do you worry that your doctor may be infected with the COVID-19 virus?		
Yes	131	79.4
No	34	20.6

al.[19] designed a modeling study to depict the spread of the disease, and the estimation was based on the spread of the virus from 31 December 2019 to 28 January 2020. According to their results, the basic reproductive number of disease (the expected number of cases produced directly by the index case) was 2.68, and the epidemic doubling time was 6.4 days. In our study, only 15% of patients were reported to have classic symptoms of the COVID-19, and 6% of the patients needed to admit to the hospital due to symptoms of the disease. 15% of the patients remained at a home quarantine for various reasons-2.4% of the patients required to be treated with the diagnosis of the COVID-19 disease. We may postulate that, these rates may increase if the personal isolation and hygiene rules are not taken into account in future.

Healthcare workers constitute the highest risk group during the pandemics. Up to now, there are about 3.8% of healthcare workers affected by the COVID-19 virus, and

14.6% of these cases were defined as severe or critical. [20] The frequency of young age deaths has also increased, mainly due to increased viral burden among healthcare workers. The number of patients who are worried about the thought that their doctors may be affected by this disease is not low, and this situation raises their anxiety in approximately 80% of the patients. In our study group, only a small proportion of the patients postponed their postoperative controls. This attitude may be because the epidemic is at the very beginning and that the systematic quarantine restrictions are not yet implemented in our country.

In our study, the attitudes of the patients in the first month of the COVID 19 pandemic were evaluated. Obtaining more objective results through questionnaires assessing patients' anxiety and stress situations can be a guide for future studies.

CONCLUSION

In conclusion, our findings reported that patients with rhinoplasty had necessary information on preventing COVID-19 pandemics, but were anxious because of their follow-up disruption. This situation can be managed during the outbreak by giving information about the overlapping symptoms of post rhinoplasty patients and COVID-19 infection by giving support to the patients in their postoperative period.

Ethics Committee Approval

Ethical approval was obtained from the Institutional Review Board of the local ethics committee of our hospital (IRB:2020/514/176/13).

Informed Consent

Retrospective study.

Peer-review

Internally peer-reviewed.

Conflict of Interest

None declared.

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Koronavirüs (COVID-19) Pandemisinde Rinoplasti Hastalarının Tutumları: Çevrimiçi Anket Analizi

Amaç: Yeni tip Coronavirus 2019 hastalığı, artan tehlike, belirsizlik ve kaygı ile ortaya çıkan dünya çapında yayılan bir hastalıktır. Bu çalışmada rinoplasti uygulanan hastaların bu süreçte tutumlarını değerlendiren bir anket yapmayı amaçladık.

Gereç ve Yöntem: Geçtiğimiz yıl burun estetiği geçiren hastalara online form gönderildi. Online anket 1-7 Nisan 2020 dönemi arasında yapıldı. Tüm katılımcılardan anketi bir hafta içinde doldurmaları istendi.

Bulgular: Anket linki 201 hastaya gönderildi. Toplam 165 (%82) katılımcı anketi doldurdu. Katılımcıların çoğunluğu sosyal mesafe ve kişisel hijyen gibi belirli önlemlerin farkındaydı. Hastalığa yakalanma olasılığı konusunda endişeliydiler. Hastaların üçte biri ek vitamin takviyesi aldıklarını bildirdi.

Sonuç: Rinoplasti hastaları COVID-19 pandemisini önleme konusunda gerekli bilgiye sahiptiler, ancak takiplerinin bozulması nedeniyle endişeliydiler.

Anahtar Sözcükler: Anksiyete; koronavirüs; pandemi; rinoplasti.