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Case Report

Recurrent Suicide Attempts in a Patient with Chronic Obstructive Pulmonary Disease: A Case Report

Kronik Obstrüktif Akciğer Hastalığı Tanılı Hastada Tekrarlayan İntihar Girişimleri: Bir Olgu Sunumu

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Abstract

Chronic obstructive pulmonary disease (COPD) is characterized by bronchial obstruction and abnormal pulmonary inflammation. Depression prevalence has increased in COPD patients. COPD frequently leads to social isolation and impairments in daily functioning, which contribute as risk factors for suicidal behavior. Although the relationship between COPD and suicide attempts is multifactorial, studies suggest that chronic hypoxia and biochemical factors can lead to increased suicide risk. The association between COPD and suicide has been emphasized in numerous studies, underscoring the need for mental health assessment in COPD patients. Evaluation of suicide risk is critical for all physicians. This case report highlights recurrent suicide attempts in a 70-year-old woman with COPD, aiming to raise awareness about the heightened suicide risk in COPD patients.

Keywords: COPD; suicide; hypoxia

Öz

Kronik obstrüktif akciğer hastalığı (KOAH), bronşiyal obstrüksiyon ve anormal pulmoner enflamasyon ile karakterize bir hastalıktır. KOAH hastalarında depresyon sıklığı artmıştır. KOAH, sosyal izolasyona ve günlük işlevsellikte bozulmalara sıklıkla yol açar ve bu durumlar intihar davranışı için risk oluşturur. KOAH ve intihar girişimleri arasındaki ilişki multifaktöriyel olsada, çalışmalar kronik hipoksi ve biyokimyasal faktörlerin intihar riskinde artışa yol açabileceğini önermektedir. KOAH ve intihar arasındaki ilişki, birçok çalışmada vurgulanmış ve KOAH hastalarında ruh sağlığı değerlendirmesinin gerekliliğini ortaya koymuştur. İntihar riski değerlendirmesi tüm hekimler için kritik öneme sahiptir. Bu vaka bildiriminde, 70 yaşında KOAH tanılı ve tekrarlayan intihar girişimi olan bir kadın sunularak, KOAH hastalarında artan intihar riski konusunda farkındalık amaçlanmaktadır.

Anahtar Kelimeler: KOAH; intihar; hipoksi

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INTRODUCTION

The prevalence of anxiety and depression in patients diagnosed with chronic obstructive pulmonary disease (COPD) is 27.1% (1). COPD is often associated with limitations in daily activities, leading to social isolation, anxiety, which are risk factors for suicide attempts (1). Moreover, studies have shown that chronic hypoxia itself also can increase the risk of suicide (2,3). Additionally, a study reported that chronic inflammation could lead to the development of depression in COPD patients (4). A meta-analysis has shown that patients with COPD have a 1.9 times higher risk of suicide attempts compared to those without COPD (5). Another study found that women with COPD have a higher risk of suicide compared to men (6). However, suicidal behavior in patients with COPD has not been adequately examined, and the risks and protective factors are not fully understood. This case report aims to contribute to the existing literature by addressing repeated suicide attempts in a patient diagnosed with COPD.

CASE REPORT

Ms. N, a 70-year-old housewife, is literate, living with her two children. In her medical history, she has type 2 diabetes, and coronary artery disease in addition to COPD.

She was brought to the emergency room after attempting suicide by cutting parts of her throat, abdomen (Figures 1, 2). After initial treatment, the patient was admitted to our ward for the second time. Eight months ago, she attempted suicide by cutting her throat, chest, and scalp with a sharp object (Figures 3,4). She was treated in our ward for major depressive disorder with psychotic features and attended six outpatient follow-up visits within eight months after her first suicide attempt. At the initial visit, the patient appeared to be stable on olanzapine 10 mg/day and citalopram 20 mg/day. On the second visit, olanzapine was reduced to 7,5 mg/day. On the third visit, she complained of weight gain and increased sadness, having gained 19 kilograms. Consequently, olanzapine was reduced to 5 mg/day and citalopram was increased to 40 mg/day. In the last two visits, the patient was stable, and it was decided to continue the treatment without any changes. One month after the last visit, she attempted to commit suicide again.

She has been followed for COPD for 4 years was recommended continuous nasal oxygen therapy and bilevel positive airway pressure (BPAP) at night. However, the patient has had difficulty complying with COPD treatment.

Figure 1: Patient's Throat

Figure 2: Patient's Umbilicus

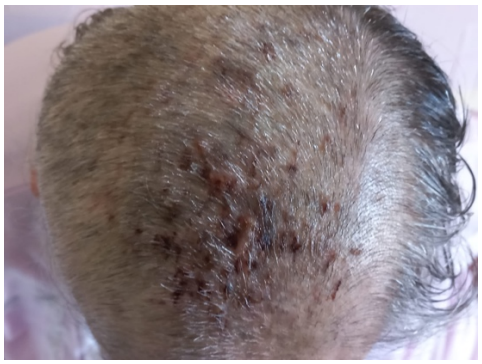

Figure 3: Patient's Scalp

Figure 4: Patient's Chest

In mental status examination, the patient appeared her stated age, with reduced self-care, was reluctant to engage in conversation, and had a defensive attitude towards the interviewer. She had limited eye contact and gave only partially appropriate responses to questions. Her speech rate, volume, and quantity were reduced. Although her psychomotor activity was normal, her reality testing and judgment were impaired. Her mood was anxious, and her affect was depressed. Her thought content included persecutory delusions about her family members and the interviewer. She believed that she was arrested for attempting suicide and thought that she was being interrogated by judges, prosecutors, and police during the examination. She also perceived her hospital admission as a punishment in prison.

After obtaining a detailed history and conducting a mental status examination, the patient was diagnosed with major depressive disorder with psychotic features according to The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria. Since it was uncertain whether she was taking her medications, treatment was adjusted to citalopram 20 mg/day and olanzapine 2,5 mg/day. The Hamilton Depression Rating Scale (HAM-D) score was 35, the Mini-Mental State Examination (MMSE) scored 16, the Brief Psychiatric Rating Scale (BPRS) scored 53 during admission, and the Geriatric Depression Scale (GDS) scored 18. The laboratory findings revealed no pathological findings. As her suicidal thoughts persisted, the citalopram dose was increased to 40 mg/day, and olanzapine was increased to 10 mg/day. The patient was consulted by the pulmonary disease clinic, which recommended continuing the current treatment without interruption. The neurological evaluation conducted by neurologists did not suggest dementia. However, continuous follow-up in the neurology outpatient clinic was recommended.

In the early days of her treatment, the patient stayed in her room alone, refused to eat, and did not communicate with other patients or staff. However, in the later stages of treatment, she began walking around the ward with her oxygen tank and engaging in conversations with others. After a month of treatment, her psychotic symptoms showed significant improvement. Repeated psychometric tests supported this improvement, with HAM-D: 16, MMSE: 23, BPRS: 45, GDS:16. The patient, with no active suicidal thoughts and improved adherence to COPD treatment, was discharged. Two months after discharge, the patient attended one outpatient follow-up visit, reporting feelings of inner distress, sadness, and reluctance to use oxygen therapy. Olanzapine was increased to 12,5 mg/day, and a follow-up appointment was scheduled for one week later, but the patient did not attend. One month after this, her daughter visited, explaining that the patient's son had been in a serious car accident and was in the intensive care unit. She expressed that they were unsure how to share this news with her mother and requested assistance. Following this, the patient and her daughter were asked to return for another visit; however, the patient did not attend and, unfortunately, discontinued follow-up visit. Informed consent for this case report was obtained from the patient and her family.

DISCUSSION

Studies show a strong link between COPD and suicidal behavior (2,5,6). Depressive symptoms are 2.5 times more common in COPD patients, and depression is a major risk factor for suicidal thoughts (8). While depression is recognized as a major risk factor for suicidal thoughts, there is also evidence linking COPD independently to an increased suicide risk (8). Therefore, it's essential to evaluate mental health and suicidal behavior in COPD patients.

Limited mobility in advanced-stage COPD patients, often due to reliance on oxygen devices, can lead to depression and increased suicide risk (1). For this reason, during the patient's hospitalization, adherence to COPD treatment was ensured, and technical support was provided to mobilize her with an oxygen tank. This aimed to increase her mobility and socialization. As a result, the patient was able to socialize with other patients in common areas and participate in garden walks. We believe this contributed to Ms. N's recovery process. Additionally, some studies have presented evidence suggesting that chronic hypoxia caused by COPD may directly increase suicide risk through chronic amine synthesis (2,3). The fact that our patient had two suicide attempts within a year, despite regular psychiatric follow-up, may support these studies.

Another study concluded that COPD itself causes chronic inflammation, which may predict depression (4). Ms. N's frequent hospital admissions to the pulmonary disease ward due to noncompliance with COPD treatment in the past year suggest that her hypoxic condition may have been more severe than that of regularly treated COPD patients. We believe this may be consistent with the aforementioned study.

In conclusion, it is important not to overlook the early detection of suicidal thoughts, and appropriate interventions and referrals are vital. Suicide risk assessment should not only be the responsibility of psychiatric professionals but also be well understood by all physicians involved in the treatment of chronic diseases. While the relationship between COPD and suicide attempts is multifactorial, it is also crucial to consider the underlying biochemical processes. Studies on the subject suggest that inflammation and chronic hypoxia may affect treatment response. We

believe that our case report will contribute to increased awareness on this subject.

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