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EDİTÖRE MEKTUP

LETTER TO EDITOR

## **PEDIATRIC TRAUMA: ASSESSING CHALLENGES AND IMPLEMENTING PREVENTIVE MEASURES**

**Abuzer Özkan, MD<sup>1</sup>**

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### **ABSTRACT**

*Pediatric trauma, often stemming from preventable factors like traffic accidents, poses a significant health risk for children. Despite thoracic traumas being less common in children, they can range from mild to severe outcomes.*

*Traffic accidents, a leading cause of pediatric trauma, underscore the need for enhanced safety measures. The presence of thoracic injuries increases morbidity and mortality risks, emphasizing the importance of comprehensive evaluations.*

*Pediatric trauma scores (e.g., TRISS, PRISM, PIM, PTS) offer objective assessments, aiding in severity determination and treatment planning. TRISS, for instance, helps gauge trauma severity and risk, contributing to standardized management.*

*Incorporating these scores into clinical practice enables precise treatment plans and efficient patient monitoring. The overall approach involves developing safety measures, promoting protective equipment use, and raising awareness, with physicians actively implementing preventive measures for enhanced safety in pediatric trauma cases.*

**Keywords:** *pediatric trauma, child health, trauma scores, TRISS, PRISM, PIM, PTS, traffic accidents, thoracic trauma, treatment plan, safety measures, protective equipment, preventive measures.*

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Dear Editor,

We read with great interest the article titled “Motosiklet Kazasına Bağlı Çocukluk Çağı Toraks Travması; Vaka Takdimi” prepared by Başoğlu et al., published in the first issue of your journal in 2023 (1). Congratulations to the authors and editorial board. However, we would like to touch upon a few issues to contribute to the discussion of the article.

Pediatric trauma stands as a significant health concern threatening the well-being of children and is a commonly encountered situation in emergency departments. Especially in developing countries, trauma ranks first among the causes of childhood mortality (2,3). This situation often arises from preventable factors, such as traffic accidents.

Children are more vulnerable to traumatic events compared to adults. Although skeletal system injuries are more frequently observed in this age group, thoracic traumas are generally less common in childhood. However, they can have a wide range of effects, from a simple injury to fatal outcomes (4). Particularly, traffic accidents stand out as one of the most common causes of traumatic injuries in children. The preventable nature of such accidents in children emphasizes the importance of measures to enhance traffic safety. The high mortality rates associated with motor vehicle accidents underscore the necessity for stricter regulations and protective measures in this field (5,6).

In cases of pediatric trauma, the presence of thoracic injuries can increase the morbidity and mortality risk for the patient. The flexibility and compressibility of the thoracic cavity in children, compared to adults, mean that even non-apparent injuries from the outside can lead to severe internal injuries (7). Therefore, when evaluating trauma in children, it is crucial to look beyond externally visible injuries (8).

Pediatric trauma is a common emergency in children that requires prompt evaluation, communication, and treatment (9). Objective determination of the severity of trauma plays a crucial role in clinical decision-making, and for this purpose, various trauma scores have been developed. These scores are measurement tools used to assess the post-traumatic condition of pediatric patients, guide treatment, and predict clinical outcomes (10-12).

#### **Pediatric Trauma Scores:**

**TRISS (Trauma and Injury Severity Score):** TRISS is a score used to determine trauma severity and morbidity-mortality risk. It is calculated based on age, gender, Glasgow Coma Scale (GCS) score, and Abbreviated Injury Scale (AIS) scores.

**PRISM (Pediatric Risk of Mortality):** PRISM is used to assess the risk of morbidity and mortality in pediatric trauma cases. It includes both laboratory and clinical parameters.

**PIM (Pediatric Index of Mortality):** PIM is developed to determine mortality risk in children admitted to intensive care units. There are both general and trauma-specific versions.

**PTS (Pediatric Trauma Score):** PTS is a score used to assess trauma severity in children. It is calculated based on GCS, arterial blood pressure, and respiratory rate.

#### **Role of Pediatric Trauma Scores in Clinical Practice:**

Pediatric trauma scores provide an objective assessment of trauma severity in children and guide the clinical decision-making process. These scores are valuable in determining the



urgency of treatment, developing treatment plans, and assessing morbidity-mortality risk in clinical practice (11,12).

For instance, using the TRISS score for a pediatric trauma patient, the severity of trauma and the risk of morbidity and mortality can be determined (13). This information is critical in formulating a treatment plan and monitoring the patient effectively.

Pediatric trauma scores are powerful tools for assessing post-traumatic conditions and determining treatment strategies in children. Effectively utilizing these scores in clinical practice can contribute to better clinical outcomes for pediatric trauma patients (11,14). These scores encourage standardization in trauma management and play a crucial role in data collection and comparison in clinical research (12,15).

In conclusion, pediatric trauma represents a significant issue threatening children's health and encompasses several preventable factors. The development of traffic safety measures, promotion of protective equipment usage, and increased awareness of trauma in children can play a critical role in reducing morbidity and mortality in this field. Physicians, when assessing pediatric trauma cases in emergency departments and hospitals, should consider these unique circumstances and strive for the implementation of further preventive measures to enhance overall safety.

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DERLEME  
**EVALUATION OF COMMUNITY-ACQUIRED PNEUMONIA  
PATIENTS USING BIOMARKERS AND  
SCORING SYSTEMS**

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**ABSTRACT**

*Community-acquired pneumonia (CAP), typically arising from various pathogens causing respiratory infections, exhibits symptoms such as fever, cough, shortness of breath, and chest pain. The severity of CAP is often evaluated using scoring systems like Pneumonia Severity Index (PSI), CURB-65 Score, CRB-65 Score, and SMART-COP Score. Moreover, biomarkers such as C-reactive protein (CRP), lactate, and neutrophil-to-lymphocyte ratio (NLR) are examined for their potential in reflecting the severity of infection and predicting mortality. CRP, as an inflammatory marker, increases in response to infections, while elevated lactate levels may indicate inadequate tissue perfusion. The NLR, representing the balance of neutrophils and lymphocytes, offers insights into the immune response. This paper underscores the importance of a multifaceted approach in evaluating CAP patients, considering both clinical scoring systems and biomarkers. While these indicators can provide valuable information, a comprehensive patient assessment should encompass various factors for personalized and effective treatment.*

**Keywords:** *Community-acquired pneumonia, Biomarkers, Scoring systems, C-reactive protein, Lactate, Neutrophil-to-lymphocyte ratio, Inflammatory markers, Mortality prediction*

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Community-acquired pneumonia (CAP) typically defines the type of pneumonia acquired by patients in their homes or within the community. This condition arises as a result of an infection in the respiratory tract, often caused by various pathogens such as bacteria, viruses, or fungi (1-4). Community-acquired pneumonia is generally associated with the following symptoms, fever (an increase in body temperature), cough (particularly with or without sputum), shortness of breath (a sensation of difficulty breathing during respiration), chest pain (discomfort or pain in the chest region).

CAP is often treatable in healthy individuals. However, it can be more severe, especially in the elderly, those with weakened immune systems, or individuals with underlying health problems (1-4). Treatment typically involves antibiotics, antiviral drugs, or antifungal medications, depending on the specific type of pathogen causing the infection. Early diagnosis and appropriate treatment can often help prevent complications (5-7).

Scoring systems used for hospitalization of CAP patients are employed to assess the severity of the patient and determine appropriate treatment strategies (8-11). Here are some commonly used scoring systems for CAP patients:

**Pneumonia Severity Index (PSI):** PSI is a scoring system that assesses the severity of CAP. It includes various clinical and demographic factors such as the patient's age, comorbidities, vital signs, and laboratory findings.

**CURB-65 Score:** This scoring system uses the criteria of Confusion, Urea ( $>20$  mg/dL), Respiratory Rate ( $\geq 30$  breaths per minute), Blood Pressure ( $<90/60$  mmHg), and age ( $\geq 65$ ). Each criterion presence receives a score, and the total score determines the severity.

**CRB-65 Score:** Similar to CURB-65, this system includes altered Mental Status instead of Urea and assesses Confusion, Respiratory Rate, Blood Pressure, and age.

**SMART-COP Score:** This scoring system is based on criteria such as Systolic Blood Pressure ( $<90$  mmHg), Multilobar Infiltrates, Altered Mental Status, Respiratory Rate ( $\geq 30$ ), Tachycardia, and CO<sub>2</sub> (Partial pressure of carbon dioxide  $<30$  mmHg).

These scoring systems are commonly used in clinical practice to assess the patient's condition and determine severity. However, each patient should be individually evaluated, and the treatment plan should be customized based on their clinical condition (12,13). Similarly, laboratory parameters can be used in clinical decision making.

C-reactive protein (CRP) is a type of protein produced by the liver, and its levels increase in the body in response to inflammation or infection. CRP is considered an inflammatory marker, reflecting inflammatory processes occurring in the body (14-16). In the context of CAP, CRP levels can aid in assessing the severity of the disease and monitoring the response to treatment. CRP is regarded as an indicator of inflammation and is associated with conditions such as infections, inflammatory diseases, or tissue damage (1,17,18). The relationship between mortality and CRP levels is complex, as various factors can influence this relationship. However, in general, elevated CRP levels are often associated with more severe and advanced inflammatory conditions. This is important in evaluating the overall health status of the patient and their response to treatment.

Lactate is the ionized form of lactic acid, a salt of lactic acid produced in the body. Lactic acid is an acid formed during the process of anaerobic glycolysis, which is an energy production process from glucose without the use of oxygen. During this process, glucose is converted into lactic acid, resulting in the formation of lactate (19). Lactate levels in the bloodstream are generally low, but specific conditions or diseases, especially situations where tissue oxygenation is decreased, can lead to an increase in lactate levels. Elevated lactate levels can indicate inadequate tissue perfusion and metabolic disturbances (20,21).

In CAP patients, the relationship between lactate levels and mortality is often associated with the patient's clinical condition and overall health. Elevated lactate levels may suggest that the patient has developed severe complications, such as severe infection or septic shock. Various studies have shown that high lactate levels are associated with poor prognosis and high mortality, especially in severe infections and sepsis conditions (22). However, this relationship is not specific to CAP patients and is generally associated with infections (1,23). In CAP patients, an increase in lactate levels may suggest that the patient has developed severe complications. In this case, lactate levels can play a significant role in the clinical assessment of the patient and determining the treatment plan (24,25). However, specific and comprehensive studies are needed to establish a lactate level-mortality relationship specifically for CAP.

Neutrophil-to-lymphocyte ratio (NLR) is a hematological parameter that expresses the ratio between the number of neutrophils and lymphocytes measured during a blood test. This ratio provides information about inflammatory conditions and the immune system's response. NLR is often used as an indicator of an inflammatory or immune response (26,27). Neutrophils and lymphocytes are essential components of the immune system, both being types of white blood cells (leukocytes). Neutrophils are typically associated with acute infections, while lymphocytes are generally associated with chronic infections and immune system responses (28,29). The relationship between the NLR and mortality in CAP patients has been examined in various studies (5,30,31). However, this relationship cannot be accepted as an exact and general rule due to the complexity of this interaction, and several factors can influence it.

Some studies have suggested that a high NLR may be associated with poor prognosis in CAP patients. However, due to the complexity of such relationships, it is not recommended to use NLR alone as a mortality prediction tool. It should be evaluated along with other clinical and laboratory parameters for a more accurate assessment (30,31). The patient's overall condition, comorbidities, age, gender, and other factors should also be taken into account.

As a conclusion the combined use of biomarkers and scoring systems can contribute to a more effective and personalized approach in the treatment of CAP. However, each patient is unique, and treatment plans should be tailored to individual characteristics and clinical conditions. Future research should focus on optimizing the use of these indicators and gaining a better understanding of their role in the management of CAP.

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VAKA TAKDİMİ

CASE REPORT

## **A RARE CAUSE OF ABDOMINAL PAIN: VAGINAL FOREIGN BODY**

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### **ABSTRACT**

Abdominal pain is a symptom that is the most common reason for admission to the emergency department and for which anamnesis is important in differential diagnosis. Vaginal foreign bodies, one of the causes of abdominal pain, can occur with various symptoms in women of all ages. Vaginal foreign bodies can be used to provide sexual stimulation, birth control, curettage, to prevent uterine prolapse, in cases of harassment and to hide illegal substances. Vaginal foreign bodies may vary depending on age groups. Tampons, condoms, menstrual cups, and items used for sexual satisfaction are common in adults. Although they are diagnosed by anamnesis, they can also be noticed through gynecological examination or imaging studies. In our case, a 43-year-old female patient applied to our emergency department with abdominal pain. The patient was alcoholic and anamnesis could not be taken. In the examinations, there was a foreign body image on the standing direct abdominal radiography. The patient underwent a rectovaginal examination. The patient, whose vaginal external examination revealed a foreign body, was consulted with a gynecologist and obstetrician. He was taken into emergency surgery. The foreign body was removed during the operation. Complications that may occur due to foreign objects remaining in the vagina are of clinical importance. These complications may include infection, ulceration, bleeding and fistula. Vaginal objects should be kept in mind in case of abdominal pain and additional symptoms in female patients of all ages who apply to the emergency department.

**Key Words:** Abdominal pain, foreign body, vagina

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## INTRODUCTION

Abdominal pain is one of the most common symptoms that cause admission to the emergency room. There are many causes of abdominal pain, which makes differential diagnosis difficult. Anamnesis is of great importance in differential diagnosis. Vaginal foreign bodies, one of the causes of abdominal pain, is a clinical condition that may occur with various symptoms in women of all ages, and it is not always possible to take anamnesis (1). One of the reasons that make taking anamnesis difficult is the patient's feeling of shame and desire to hide it.

Vaginal foreign bodies are encountered more frequently in children in the literature, but they can also be seen in adults for various reasons (1). These reasons are mostly; for sexual stimulation, for birth control, for curettage, to prevent uterine prolapse, in cases of harassment and for storing illegal substances (2). Vaginal foreign bodies may vary depending on age groups. While toys and household items are common in the pediatric age group, tampons, condoms, menstrual cups and items used for sexual satisfaction are common in adults (3).

Symptoms may vary across age groups. In adults, discharge, bleeding, and abdominal pain may occur. These symptoms have a wide differential diagnosis.

Although intravaginal foreign bodies are diagnosed by anamnesis, they can also be noticed by gynecological examination or imaging studies in cases where the anamnesis is insufficient (4).

## CASE REPORT

In our case, a 43-year-old female patient applied to our emergency department with abdominal pain. The patient was alcoholic and anamnesis could not be taken. Laboratory tests and standing direct abdominal radiography were requested from the patient. In laboratory tests, the pregnancy test was negative and other parameters were within the reference range, and there was no pathological value. There was a foreign body image in the X-ray taken (picture 1), but a pelvis X-ray was also taken for the full image. A foreign body-glass (picture 2) was also seen on the pelvic radiograph. The patient underwent a rectovaginal examination. The patient, whose vaginal external examination revealed a foreign body, was consulted with a gynecologist and obstetrician. He was taken into emergency surgery. The foreign body was removed during the operation (picture 3). During the operation, no bladder or rectum injuries were observed, which can be seen in such cases, but there was serious injury to the side wall of the vagina (6).



**Picture 1:** Standing direct abdominal radiography, the entire foreign body is not visible.



**Picture 2:** Pelvic radiography, foreign body – glass



**Picture 3.** Foreign object removed during the operation (glass)

## DISCUSSION

Vaginal objects should be kept in mind in the presence of abdominal pain and additional symptoms in female patients of all ages who apply to the emergency department (1).

Complications that may occur due to foreign objects remaining in the vagina are of clinical importance. These complications may include infection, ulceration, bleeding and fistula (3)(5).

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VAKA TAKDİMİ

CASE REPORT

## METHYL ALCOHOL INTOXICATION; CASE REPORT

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### ABSTRACT

*Methyl alcohol is obtained through the distillation of harcoal. It is industrially used and legally sold, due to its solvent effect. It is cheap and easy to access when compared to ethyl alcohol, causes methyl alcohol to be used as an alcoholic beverage by unconscious sections of the society. Even a very small amount of methyl alcohol like 8-10 ml shows a toxic effect. a 1ml/kg dose is fatal. Following methyl alcohol inhalation, the clinic may be quiet until toxic metabolites occur. Therefore, we thought it is a great case to show how important the ability to take anamnesis is for medicine.*

*A 40-year-old male patient applied with complaints of not being able to maintain his balance and blurred vision especially in his right eye that started 1 day ago. Application vitals fever: 36.5°C heart rate :80rate/min blood pressure :110/70 mmHg SPO2: 92. Patient was taking treatment due to alcohol-due liver-s for 3 years and still use alcohol. He has had difficulty in maintaining balance for 2 years, but he fell fall 1 day before the application. GCS: 15. The motor power was natural in all the extremities. Cerebellar examination was natural. The neck did not have strength. Light reflexes were natural in the left eye and decreased in the right eyes. The other system examination is normal. And the magnetic resonance (MR) was wanted for imaginering. It was normal.*

*Patients coming due to methyl alcohol intoxication mostly unconsciously applied, our patient's GCS: 15. Due to that, we didn't talk to the patient him and his history from his history. Formic acid in methyl alcohol intoxication mostly apply with complaints of visual disorders and headache in the early period. In our case, the main complaint was loss of balance and we learned that there was a visual disorder in the detailed inquiry. Due to measurement of methyl alcohol at the bedboard and in the laboratory, communication skills for clinical information and consultaneous physician and communication skills with physicians, because methyl alcohol cannot be measured mostly in emergency departments in our country it is supplied. Physicians in the emergency department should consider methyl alcohol intoxication, especially in the presence of visional disorder, headache, loss of balance or unexplained acidosis, and should improve their skills in questioning patients.*

**Key Words:** Methyl alcohol, blurred vision, Intoxication

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## INTRODUCTION

Methyl alcohol is obtained through the distillation of harcoal (1,2,3). It is industrially used and legally sold, due to its solvent effect(1). It is cheap and easy to access when compared to ethyl alcohol, causes methyl alcohol to be used as an alcoholic beverage by unconscious sections of the society(1). Even a very small amount of methyl alcohol like 8-10 ml shows a toxic effect. a 1ml/kg dose is fatal(1). Following methyl alcohol inhalation, the clinic may be quiet until toxic metabolites occur(4). Therefore, we thought it is a great case to show how important the ability to take anamnesis is for medicine.

## CASE REPORT

A 40-year-old male patient applied with complaints of not being able to maintain his balance and blurred vision especially in his right eye that started 1 day ago. Application vitals T:36.5 nb:80 TA:110/70 SPO2: 92. Patient was taking treatment due to alcohol-due liver-s for 3 years and still use alcohol. He has had difficulty in maintaining balance for 2 years, but he fell fall 1 day before the application. GCS: 15. The motor power was natural in all the extremities. Cerebellar examination was natural. The neck did not have strength. Light reflexes were natural in the left ey and decreased in the right eyes. Examinations have been taken. MR done. In biochemistry, Glucose:118 mg/dl, Urea:16.2 mg/dl, EGFR:103.67 Creatinin :0.92 mg/dl , AST:119 U/l, ALT:52 U/l, ALP: 121 U/l, GGT:221.9 U/l, ALBUMIN: 33.4g/l, AMYLASE:72 U/l, Total Bilirubin:3.18 mg/Dl, Direct Bilirubin :0.83 mg/dl, Indirect Bilirubin 2.35mg/dl, CK:534 U/l, CK-MB:16.8 U/l , CRP:1.1 mg/l, Na:134.7 mmol/l, K:3.47 mmol/l, Troponine:50.11 ng/l , INR:1.33, APTT:29.7 Sec , PT: 11.9 Sec, ETHANOL: 2.45 mg /dl.In Hemogram WBC: 9.16 K/uL, HGB:14.7 G/DL , HCT:43.0%. In Blood Gas:, PH:7.41, PO2:62.8 mmHg, PCO2:30.4mmHg, HCO3:18.8 mmol/l , LACTATE:8.69 mmol/l.The MR is normal. When the patient's anamnesis is deepended, it was learned that he has a history of use of fake alcohol without a bandrool 2 days ago. 250 cc sf iv infusion 500cc 5% dextrose started. available information was transferred to the anesthesia doctor. consulted with the poison counseling center. Poison counseling center consider that the patient be given to dialysis if he has acidosis, ethyl and there is any disorder in consciousness and clinical status, that visual disorder can be permanent and if it continues, the ophthalmologist consultancy is needed. The patient was given intensive care for follow-up and treatment. Respiratory difficulty and bradycardia developed at the follow-up of the patient and he was intubated.

## DISCUSSION

Patients coming due to methyl alcohol intoxication mostly unconsciously applied(5), our patient's GCS: 15 SO we could talk and we learnt that he drunk metyl alcohol . Formic acid in methyl alcohol intoxication mostly apply with complaints of visual disorders and headache in the early period(4). In our case, the main complaint was loss of balance and we learned that there was a visual disorder in the detailed inquiry. Due to measurement of methyl alcohol at the bedboard and in the laboratory, communication skills for clinical information and consultaneous physician and

communication skills with physicians, because methyl alcohol cannot be measured mostly in emergency departments in our country it is supplied.

**Disclaimer:** The opinions expressed in the article belong to the authors. There is no official responsibility of any institution or financial source.

All authors declare that there is no conflict of interest regarding this manuscript.

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VAKA TAKDİMİ

CASE REPORT

# **PNEUMOMEDIASTINUM WITHOUT PNEUMOTHORAX IN HUNTINGTON'S DISEASE: A CASE REPORT**

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## **ABSTRACT**

*The presence of free air in the mediastinum for no reason is defined as spontaneous pneumomediastinum (SPM). Huntington's Disease is a rare genetic disease. It is associated with progressive neurological dysfunctions. Nutritional deficiencies are likely to occur with the course of the disease. Alveolar wall weakness caused by nutritional deficiencies may be associated with spontaneous pneumomediastinum.*

## **CASE**

*A 52-year-old female patient who was diagnosed with Huntington's disease 9 years ago presented to the emergency department with shortness of breath and decreased eating and drinking. SPM was detected in the patient who was taken to the intensive care unit with the diagnosis of aspiration pneumonia. We evaluated the patient's medical process.*

## **Conclusion**

*Nutritional deficiency in Huntington's disease can be considered a risk factor for spontaneous pneumomediastinum.*

**Key Words:** *Progressive neurological dysfunctions, nutritional deficiencies, spontaneous pneumomediastinum, rare genetic disease*

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## INTRODUCTION

Huntington's disease (HD) is a rare, hereditary, neurodegenerative disorder that causes progressive motor defects, psychiatric symptoms and cognitive impairment(1) The most typical finding is chorea, which gradually spreads to all muscles. Psychomotor processes are severely regressed. The most common symptoms and signs are involuntary weight loss, dysfunctions related to the autonomic nervous system, circadian rhythm and sleep disorders. The age of onset is between 30-50. Life expectancy is on average 17-20 years. Progression of the disease leads to dependence on daily routines and results in death. Pneumonia is the most common cause of death. The second most common cause of death is suicide (1).

The presence of free air in the mediastinum that is not associated with trauma is known as spontaneous pneumomediastinum (SPM). It is a rare, self-limiting condition that can cause diffuse subcutaneous emphysema (2). Excessive coughing, recurrent attacks of increased abdominal pressure, vomiting or sneezing are considered risk factors for SPM.

We present a 52-year-old patient with spontaneous pneumomediastinum with Huntington's chorea.

## CASE REPORT

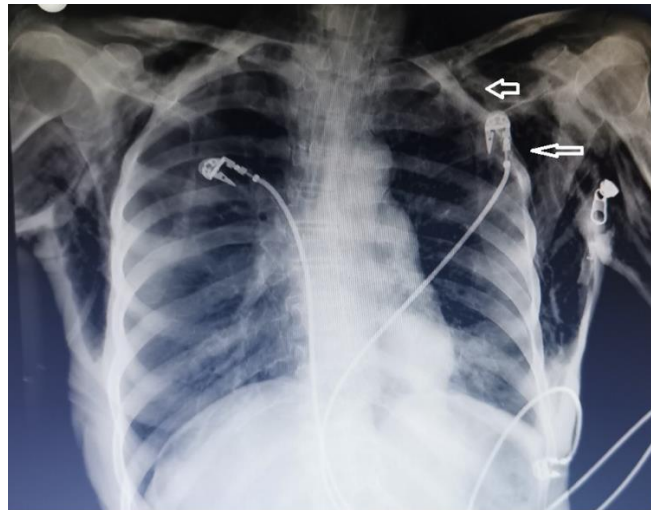
A 52-year-old female patient was admitted to the emergency department with complaints of decreased eating and drinking, confusion, and difficulty breathing. Hasta was taken to the intensive care unit for follow-up and treatment. It was learned that she has diagnosed with HD at the age of 42. The mother and her older sister have HD in the family history. She has three children, and 36-year-old children have HD. In the emergency department, Wbc:18.830, Hb:11,2, Plt:161000, Procalcitonin:100, Neu:17520, Lypn:950, Monocyte:110, Glucose:159, Creatine:2,16, Albumin:18,7, GFR:25,7, CRP:289,5, Na:156, K:5,13, AST:54, ALT:39, Ca:7,39, P:3,19, Ph:7,51, PCO<sub>2</sub>: 29,6, PO<sub>2</sub>: 164,7, INR:1,33, It came in as APTT:35.1, PT:12.3. On physical examination, it was observed that the patient was weak, his motor skills decrease, and he did not respond to verbal commands. There was no severe cough. It was stated by his relatives that he did not experience a severe cough until the hospital process. The level of consciousness was considered to be prone to sleep and confusion. The patient had pulse pressures that required inotropic treatment. The patient was provided with appropriate antibiotic therapy and hydration. Nasogastric tube feeding was started. The patient was followed up with nasal oxygen therapy on the first day of hospitalization. On the Computer Tomography (CT) image taken, free air around the aorta was noticed. (Figure 1). Pneumomediastinum was followed-up. The patient had no chest pain, and difficulty in swallowing was a complaint of the patient for a long-time swallowing difficulty could not be assessed because he did not take it orally after hospitalization. Hoarseness could not be assessed because he did not speak. Diffuse infiltration in the lung was interpreted in favor of aspiration



pneumonia because it was more pronounced on the right side. Pneumothorax was not detected (Figure 2). Like Covid 19 pneumonia, the radiological appearance was found to be cold in the differential diagnosis. Polymerase Chain Reaction (PCR) came in negative. At the end of 48 hours, the patient was intubated on the development of signs of respiratory failure. On the second day of intubation, the patient showed signs of subcutaneous emphysema. On the left side of his chest, more pronounced dense subcutaneous emphysema was seen. Left hemithorax crepitations (Hamman's crunch) were released simultaneously with the heartbeat. The subcutaneous emphysema was masked in the following hours. The subcutaneous catheter was applied bilaterally to the patient. Within a period of 12 hours, the symptoms of subcutaneous emphysema regressed. A decrease in the need for inotropic therapy and an improvement in oxygen saturation were observed. Despite the increase in inotropic support given on the 7th day of hospitalization in the patient, a decrease in pulse pressure and a sudden rhythm of pulse loss were observed. He did not respond to cardiopulmonary resuscitation. The patient's death was accepted.



**Figure 1.** CT image. Free air around the aorta is marked with an arrow.



**Figure 2.** Direct chest radiography of subcutaneous emphysema.

## DISCUSSION

We evaluated a case of spontaneous pneumomediastinum without pneumothorax, a rare clinical condition for HD, which is considered among the Rare Diseases. To the best of our knowledge, we present the first case of pneumomediastinum without pneumothorax reported among patients who were followed up with the diagnosis of HD.

Respiratory diseases have been reported as the most common cause of sudden death from Huntington's disease(3) Our patient suffered from a severe lower respiratory tract infection. We predicted aspiration-related lower respiratory tract infection due to existing swallowing difficulties and cooperating disorder and determined our treatment accordingly. Despite the insertion of a subcutaneous catheter for appropriate antibiotic therapy, nutrition, hydration and developing pneumomediastinum, patient death occurred.

There was no severe cough in our patient. Despite pneumonia, we attribute the absence of cough in the story to diminishing reflexes. We think that the cause of SPM in our patient may be alveolar wall damage due to long-term lack of feeding.

The presence of free air in the mediastinum without apparent cause is defined as SPM. The most common causes of SPM are gagging, vomiting, acute asthma attack, intense sports activity, drug inhalation, and weight loss(4)

In an animal study, it was reported that some lung tissues could be spent because the oxygen consumption of the organism and the lung decreased during the restriction of calories (5).

A Dutch study reported that improved health conditions and health care, leading to a prolongation of life expectancy in the general population, did not benefit individuals with Huntington's disease(5) However, knowing the medical conditions that can be investigated can contribute to changing the sudden death rates.

We believe that studies and case report evaluating the age and causes of death associated with Huntington's disease will increase awareness of the disease and have an impact on health policy indicators.

**Disclaimer:** The opinions presented in the report belong to the authors. The institution and financial resources have no responsibility.

All authors declare that there is no conflict of interest regarding this manuscript.

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