

Case Report

Importance of Dental Care in Palliative Care Patients: A Case Report and Review of the Literature

Canan KUCUK¹, Kemal ARDA², Mustafa Hamidullah Turkkani³, Naim ATA⁴

¹Ankara 29 Mayıs Hosp. Dept of Anesthesiology and Reanimation

²Ankara Atatürk Research and Education Hosp. Dept. Of Radiology

³Ankara 29 Mayıs Hosp. Dept of Chest Disease

⁴Ankara 29 Mayıs Hosp. Dept of Internal Medicine

*Corresponding author

Canan Kucuk

Email: canankuc@yahoo.com

Abstract: Dental care and oral hygiene is very important in palliative care patients. In these patients, the symptoms are not routinely assessed and have obviously been underestimated. Oral cavity is a good medium for microorganisms. It is affected in end stages of chronic diseases which aggravate the disease process and can be fatal as in our case report. We present a case with a diagnosis of bilateral teeth aspiration at right and left mainstem bronchi which is referred to our palliative care unit.

Keywords: Dental care, oral hygiene, microorganisms

INTRODUCTION

Oral hygiene is very important in palliative care patients. Each patient's detailed medical history should be taken and detailed oral & dental examination should be done. A detailed dental anamnesis should be taken from the patients with own words if possible. If not it should be taken from person who gives care to the patient. Not only dental history but also nutritional status should be assessed. Oral & dental care and nutritional status are closely related to each other, this vicious circle is a great problem in palliative care patients. Oral & dental problems can lead to systemic problems in palliative care patients.

Palliative patients are usually prone to caries and periodontitis may lead to tooth drop [1]. Complications of tooth drop are important and may be lethal. Inhalation of foreign body (tooth) into the airways defined as aspiration. Disturbances in the state of consciousness facilitates the aspiration to the lower respiratory tract. In adults, neurological disorders or alcohol/sedative dependency are predisposing factors [2-3]. If foreign body is at the proximal part of the airway, obstruction and asphyxia symptoms are found early. But at distal part these symptoms may occur after weeks or years [4]. Complications such as pneumonia, atelectasis, bronchiectasis, abscess, pneumothorax, obstructive emphysema may be seen due to the foreign body aspiration [5]. Early diagnosis can be difficult. We present a case who referred to our palliative care service

with home type ventilator, detailed examinations revealed that bilateral teeth aspiration at right and left mainstem bronchi.

CASE PRESENTATION

Fifty-five -year-old female patient with cough, fever, sputum, has admitted to emergency services three times a month and pneumonia treatment has given to the patient. After developing respiratory arrest, patient has admitted to the intensive care unit at another center, she was followed by bilateral lobar pneumonia on mechanical ventilation (MV). Tracheostomy was performed but weaning from mechanical ventilation has not been possible and she was followed up with home type ventilator for 11 months with different antibiotics treatments for pneumonia. Patient was referred to our hospital for palliative care center with home type ventilator for training her caregiver.

CASE MANAGEMENT

Her anamnesis was taken from her caregiver. We were unable to get a detailed history we want to learn. Her physical examination was done. At her physical examination most significant finding was her bad oral hygiene and missed 2 teeth.

However, considering the overall situation she was admitted to the radiology department. Hyperdensity was detected at right hilar region on postero-anterior chest radiograph. At thorax CT examination, hyperdense

nodular lesions in the both main bronchi were detected. Especially the shape of lesion in the right bronchus resembles like molar tooth. Chest radiograph in the proper position has showed that teeth. We also gave

antibiotic treatment according to antibiogram (antibiotic susceptibility) results. Interventional bronchoscopic procedure was planned. However, the patient's family did not accept bronchoscopic procedure.

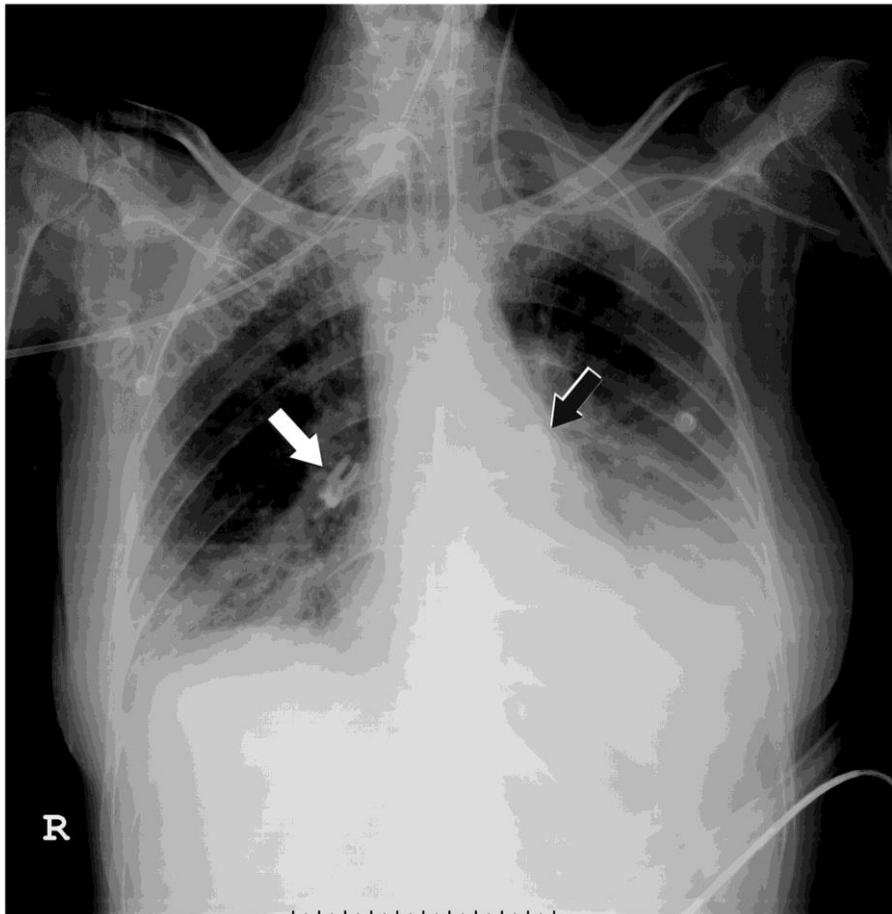


Fig 1: Chest X ray showed molar teeth in bilateral main bronchi.

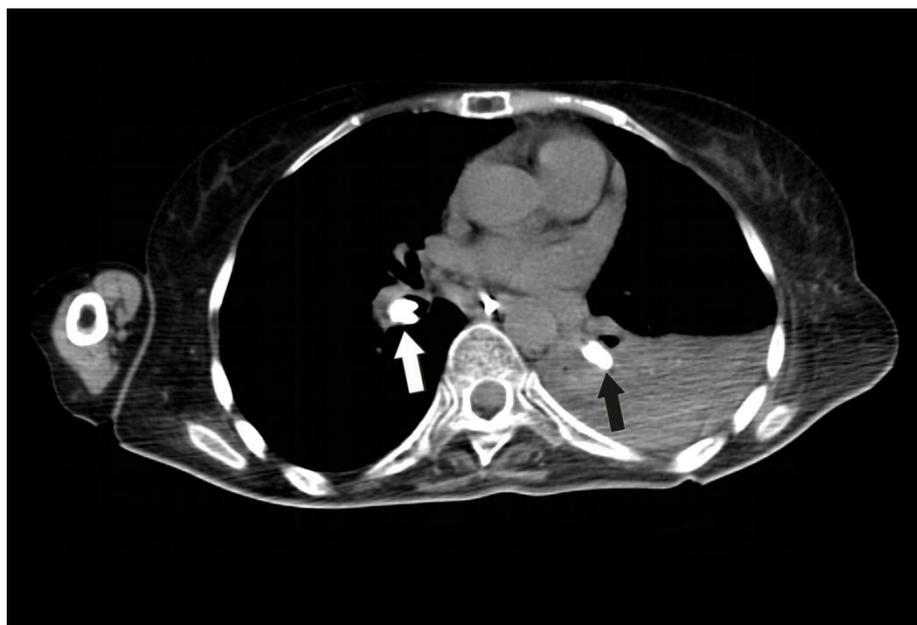


Fig 2: Non contrast CT examination confirmed that there are molar teeth in main bronchi.

Case outcome

The patient died 20 days after admission.

CONCLUSIONS

Palliative care doctors should record detailed medical history, review of systems, drug allergies, current medications and detailed dental history for further reference. Oral examination should be done properly by palliative care doctors and dentist. Diet regulation and oral hygiene are important part of care in palliative patients. These have been shown to prevent tooth loss. Proper nutrition provides the nutrients necessary to maintain enamel strength. Nutritional and dental assesment is neglected in palliative patients. Malnutrition is a slow process. Compromised nutritional status can lead to severe neural, muscular, bony, hematological and mental disorders affecting the general health and rarely proved to be fatal [1].

Mucositis and stomatitis are common in patients who receive chemotherapy and radiotherapy. Xerostomia affects nutritional status of patients. Palliative care patients are unable to consume food if oral cavity is compromised. Caries and periodontitis can be seen in these patients [6-8]. Consequently, periodontal disease may cause increased infection and bone loss to lead tooth loss. Tooth loss can occur secondary or concomitantly to cardiovascular disease, cancer, osteoporosis and diabetes mellitus. Therefore, it is important to maintain good oral hygiene, nutritional status to avoid complications.

The main method of preventing tooth loss is prevention of oral diseases in palliative care. Periodontitis, disease of gums, leads to detachment of the supporting structures from the teeth and their eventual loss [1]. Tooth loss due to tooth decay and gum disease may be prevented by good oral hygiene, and regular oral examination of palliative patients. Tooth aspiration is one of the life -threatening emergency. It may be asymptomatic or causes serious respiratory complications, even death. The causes of mortality and morbidity are delayed treatment due to delayed diagnosis, lack of experience or technical inaccuracies [9]. After clinical history and physical examination, PA and lateral chest radiography in patients with suspected foreign body is the first preferred imaging technique [3, 10]. Compared to other foreign body aspiration, dental aspiration is usually and easily recognized because of its radiopaque structure. However, if the radiopaque structures such as ribs superimposed on chest or spine radiograph, it can be misdiagnosed [11]. In patients with foreign body aspiration history and delayed diagnosis, thorax CT and bronchoscopy should be done. Aspirated foreign body usually directed into the right main bronchus due to the anatomical configuration. More than 70 % of foreign bodies in adults are located on the right bronchus [12]. One of bilateral pulmonary aspirated tooth has been reported to change location to other lung [13].

In our case, aspirated teeth were present bilaterally at main bronchi. The patient was diagnosed about 11 months later. The patient developed severe infection, cultures were positive and were treated according to antibiogram results, but there was no reponse to treatment and the patient died. This suggests that palliative care should be multidisciplinary. A detailed dental history taking is important from the patients. Nutritional and dental assesment must not neglected in palliative patients. The prevention of oral problems like xerostomia, mucositis, candidiasis, dental caries and periodontitis are some of the important aspects of palliative oral treatment. Proper nutrition, hydration and oral hygiene are also needed for well-being of palliative patients. We must be alert if the oral hygiene and nutritional status is bad to misdiagnose in palliative patients

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